# The Gender Gap in Religion Around the World 

Women are generally more religious than men, particularly among Christians

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## Acknowledgments

This report was produced by Pew Research Center as part of the Pew-Templeton Global Religious Futures project, which analyzes religious change and its impact on societies around the world. Funding for the Global Religious Futures project comes from The Pew Charitable Trusts and the John Templeton Foundation.

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Pew Research Center received very helpful advice and feedback on this report from Benjamin BeitHallahmi, emeritus professor in the Department of Psychology, University of Haifa; Landon Schnabel, sociology doctoral candidate, Indiana University-Bloomington; David Voas, professor and head of the Department of Social Science, University College London; and Linda Woodhead, professor in the Department of Politics, Philosophy and Religion, Lancaster University.

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## Table of Contents

Overview ..... 5

1. Women more likely than men to affiliate with a religion ..... 18
2. Gender differences in worship attendance vary across religious groups ..... 22
3. Women report praying daily at higher rates than men ..... 29
A closer look at the gender gap in prayer among Muslims ..... 33
4. Religion is equally or more important to women than men in most countries ..... 36
5. Women and men about equally likely to believe in heaven, hell and angels ..... 42
6. In the U.S., religious commitment is high and the gender gap is wide ..... 50
7. Theories explaining gender differences in religion ..... 54
Do patterns of female labor force participation help explain the religious gender gap? ..... 59
About this report ..... 68
Appendix A: Methodology ..... 69
Appendix B: Absolute and relative gender gaps ..... 80
Appendix C: Sources ..... 112
Appendix D: Question wording from each survey ..... 119

# The Gender Gap in Religion Around the World 

## Women are generally more religious than men, particularly among Christians

Standard lists of history's most influential religious leaders - among them Abraham, Moses, Jesus, Muhammad, Siddhartha Gautama (the Buddha) - tend to be predominantly, if not exclusively, male. Many religious groups, including Roman Catholics and Orthodox Jews, allow only men to be clergy, while others, including some denominations in the evangelical Protestant tradition, have lifted that restriction only in recent decades. Yet it often appears that the ranks of the faithful are dominated by women.

In the United States, for example, women are more likely than men to say religion is "very important" in their lives ( $60 \%$ vs. $47 \%$ ), according to a 2014 Pew Research Center survey. American women also are more likely than American men to say they pray daily ( $64 \%$ vs. $47 \%$ ) and attend religious services at least once a week ( $40 \%$ vs. $32 \%$ ). ${ }^{1}$ According to media accounts, women so outnumber men in the pews of many U.S. churches that some clergy have changed decor, music and worship styles to try to bring more men into their congregations.

Noting similar gender differences in other countries, mainly in Europe, some social scientists have argued that women are universally more religious than men across all societies, cultures and faiths. ${ }^{2}$ More controversially, a few sociologists have theorized that the gender gap in religion is biological in nature, possibly stemming from higher levels of testosterone in men or other physical and genetic differences between the sexes. ${ }^{3}$

How and why men and women differ in religious commitment has been a topic of scholarly debate for decades. Even today, it continues to inspire much academic research, as well as discussions among the general public. To contribute to this ongoing conversation, Pew Research Center has amassed extensive data on gender and religion in six different faith groups (Christians, Muslims,

[^0]Buddhists, Hindus, Jews and the religiously unaffiliated) across scores of countries, including many with non-Christian majorities. Data on affiliation in 192 countries were collected from censuses, demographic surveys and general population surveys as part of the Center's multiyear study projecting the size and geographic distribution of the world's major religious groups from 2010 to 2050.4 Data on religious beliefs and practices come from international Pew Research Center surveys of the general population in 84 countries conducted between 2008 and $2015 .{ }^{5}$

Based on these wide-ranging and comprehensive datasets, this study finds that, globally, women are more devout than men by several standard measures of religious commitment. But the study also reveals a more complex relationship between religion and gender than has been commonly assumed. While women generally are more religious, men display higher levels of religious commitment in some countries and religious groups. And in other contexts, there are few, if any, discernable gender differences in religion. ${ }^{6}$

On all the standard measures of religious commitment examined in the study, Christian women are more religious than Christian men. By contrast, Muslim women and Muslim men show similar levels of religiousness on all measures of religious commitment except frequency of attendance at worship services. Because of religious norms, Muslim men attend services at a mosque much more often than Muslim women do.

## Varieties of religious commitment

Measuring levels of religious commitment in widely differing societies and faiths is a tricky endeavor. Rather than trying to use a single indicator, this report looks at a variety of measures of commitment, including religious affiliation, frequency of worship service attendance, frequency of prayer, and whether religion plays an important role in a person's life. Depending on the specific measure, data are available for varying numbers of countries because not all surveys asked the exact same questions.

## Globally, women somewhat more likely to affiliate with a religious faith

The first measure the study looks at is affiliation - that is, whether people belong to any particular religion. An estimated $83.4 \%$ of women around the world identify with a faith group, compared with $79.9 \%$ of men, according to Pew Research Center's analysis of censuses, surveys and

[^1]population registers in 192 countries and territories. This gap of 3.5 percentage points means that an estimated 97 million more women than men claim a religious affiliation worldwide, as of 2010.7

In 61 of the 192 countries, women are at least 2 percentage points more likely than men to have an affiliation. In the remaining countries, women and men display roughly equal levels of religious affiliation because in many cases nearly all people of both genders identify with some religious group. There are no countries in which men are more religiously affiliated than women by 2 percentage points or more. ${ }^{8}$

## Women are more likely to be religiously affiliated than men in many countries

There is no country where men affiliate more than women by at least 2 percentage points


[^2]
## Gender gap in worship service attendance differs between Muslim-majority and Christian-majority countries

Men attend more often in predominantly Muslim countries and Israel, but women attend more often than men in predominantly Christian countries


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## Among Christians, women attend religious services more often, but among Muslims and Orthodox Jews, men attend more often

Another useful indicator of religious commitment is how often women and men say they attend religious worship services. The biggest exceptions to the overall pattern of women exceeding men in religious commitment can be found on this measure. Among Christians in many countries, women report higher rates of weekly church attendance than men. But among Muslims and Orthodox Jews, men are more likely than women to say they regularly attend services at a mosque or synagogue. 9 Higher levels of weekly attendance among Muslim and Jewish men are due in large part to religious norms that prioritize men's participation in worship services. In Orthodox Judaism, communal worship services cannot take place unless a minyan, or quorum of at least 10

[^3]men, is present. And in most Islamic societies, Muslim men are expected to attend communal Friday midday prayers in the mosque, while women can fulfill this obligation individually, either inside or outside the mosque.

Worldwide, this results in a mixed attendance pattern. Out of 81 countries where Pew Research Center surveys have asked about worship service attendance, women report greater levels of weekly attendance in 30 countries, most of which have Christian majorities or large Christian populations. In 28 countries - mostly places with Muslim majorities or large Muslim populations - men report greater weekly attendance than women. In the remaining 23 countries, the difference between women and men in self-reported attendance is not statistically significant.

Women are more likely than men to pray daily in many countries


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## Generally, more women than men pray daily

Another measure of religious commitment concerns prayer, which can take place privately as well as publicly. Pew Research Center surveys have asked people in 84 countries how often they pray. In about half of those countries (43), substantially more women than men say they pray on a daily basis. Only in Israel, where roughly $22 \%$ of all Jewish adults self-identify as Orthodox, does a higher percentage of men than women report engaging in daily prayer. In the remaining countries, women and men are about equally likely to say they pray daily.

The difference between women and men in self-reported rates of daily prayer is the biggest average gender gap found in this study. Across the 84 countries for which data are available, the average share of women who say they pray daily is 8 percentage points higher than the average share of men. Even religiously unaffiliated women in some countries, including the United States and Uruguay, report praying daily at higher rates than unaffiliated men do.

In most countries, religion is equally or more important to women than to men


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## Religion equally or more important to women than to men

Many Pew Research Center international surveys ask people to assess the importance of religion in their daily lives. Is religion very important, somewhat important, not too important or not at all important to them? In 46 of the 84 countries for which data are available, women and men are about equally likely to say religion is "very important" in their lives. But in 36 other countries, women are more likely than men to regard religion as very important - often by notably large margins. Only in Israel and Mozambique are men more likely than women to consider religion very important to them personally.

## Women and men about equally likely to believe in heaven, hell and angels

Another way to measure religiousness is to look at what people believe. Survey data from 63 countries regarding beliefs in heaven, hell and angels indicate that men and women usually display similar levels of belief in these concepts. For example, out of 63 countries, both genders are equally likely to believe in heaven in 47 countries and to believe in hell in 52 countries. But where there is a discernible gender gap, women are more likely than men to believe in these concepts.

For example, women are more likely than men to say they believe in heaven in 15 countries and more likely than men to say they believe in hell in 10 countries. Women also are more likely to say they believe in angels in 14 of 63 countries. There are a few exceptions: Men are more likely than women to believe in heaven and hell in Lebanon and to believe in angels in Pakistan.

## Christian and Muslim gender gaps differ

By most key measures of religious commitment, Muslim men and women are more alike in their levels of religiousness than are Christian men and women. For example, in the 40 countries where data were collected on Muslims' prayer habits, Muslim women report praying daily more often than Muslim men by an average difference of only 2 percentage points. A similar pattern occurs in religion's importance. There is virtually no difference between the shares of Muslim women and Muslim men who say religion is "very important" to them in the 40 countries with data on this topic. When it comes to weekly attendance at religious services, however, the pattern is very different: Muslim men are more likely than Muslim women to regularly attend services by an average of 28 percentage points across the 39 countries where Muslim attendance data were collected.

By contrast, the gender gaps between Christian women and Christian men are more consistent than the Muslim gender gaps. Across all measures of religious commitment, Christian women are more religious than Christian men, often by considerable margins. In the 54 countries where data were collected on Christians' daily prayer habits, Christian women report praying daily more frequently than Christian men by an overall average gap of 10 percentage points. In 29 of those countries, more women than men reported praying daily by margins of 10 percentage points or more, ranging upward to 25 points in Greece. ${ }^{10}$ Similarly, Christian women are more likely than Christian men to say religion is "very important" to them by an overall average of 7 percentage points across 54 countries. In 15 of those countries, more women than men say this by margins ranging from 10 percentage points in Peru, Chile and the United States to 23 points in South Korea. When it comes to attendance at worship services, Christian women are, on average, 7 percentage points more likely than Christian men to report attending services weekly across 53 countries with data on Christian attendance patterns. ${ }^{11}$

[^4]
## Among Christians, women are more religious than men on all measures; gender gaps among Muslims are less consistent

Average percentage-point difference between men and women on measures of religious practice, commitment and belief

|  |  |  | \% pt. difference |
| :---: | :---: | :---: | :---: |
| CHRISTIANS | Women | Men | Men $\langle>$ Women |
| Weekly attendance | 53\% | 46\% | +7 |
| Daily prayer | 61 | 51 | +10 |
| Importance of religion | 68 | 61 | +7 |
| Belief in heaven | 91 | 89 | +2 |
| Belief in hell | 78 | 76 | +1 |
| Belief in angels | 88 | 84 | +3 |
| MUSLIMS | Women | Men | Men $4>$ Women |
| Weekly attendance | 42\% | 70\% | -28 |
| Daily prayer | 72 | 71 | +2 |
| Importance of religion | 76 | 76 | 0 |
| Belief in heaven | 94 | 93 | 0 |
| Belief in hell | 88 | 88 | 0 |
| Belief in angels | 86 | 85 | +1 |

Note: Values in difference column are calculated based on unrounded numbers.
Source: Pew Research Center surveys, 2008-2015
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Among Christians, women are more ... but among Muslims, women are religious than men in many countries ... rarely more religious than men


Source: Pew Research Center surveys, 2008-2015
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## Explaining the religious gender gap

Scholars of religion have been examining possible reasons for the gender gaps in religious commitment for some time. They have advanced many different theories, which cover a wide range of sources: biology, psychology, genetics, family environment, social status, workforce participation and a lack of "existential security" felt by many women because they generally are more afflicted than men by poverty, illness, old age and violence. Lately, a growing consensus in the academic community is that the religious gender gap probably stems from a confluence of multiple factors. But there is still no agreement on exactly which factors are most responsible for the gender differences.

Chapter 7 of this report outlines some possible explanations scholars have suggested for the religious gender gap. It also discusses a Pew Research Center analysis of data looking at a possible link between women's religious commitment levels and their labor force participation (see page 59). Women who participate in the labor force tend to show lower levels of religious commitment than women who do not work outside the home for pay. As a result, when these two groups of women are compared with men (most of whom are in the labor force), the gender gaps differ. Indeed, Pew Research Center's analysis finds the gap between women who are in the labor force and men tends to be smaller than the gap between women who are not in the labor force and men. This pattern holds even after accounting for other factors that are also associated with religious commitment, such as education level, age and marital status. Moreover, further analysis shows that across predominantly Christian countries, the overall gender gaps in daily prayer and importance of religion are smaller in countries where more women are in the labor force.

That analysis, along with the finding that women are not universally more religious than men, lends support to explanations of the religious gender gap that include "nurture" (i.e., social and cultural forces) and not just "nature" (i.e., biological or evolutionary forces). By drawing on data from more Muslim-majority countries and non-European countries than previous studies, this report demonstrates that the gender gap is not consistent across societies or religious traditions; differences in religious commitment between men and women vary considerably around the globe. This does not mean explanations that lean heavily on "nature" might not also help explain the religious gender gap and its prevalence throughout the world. But it does suggest that social and cultural factors, such as religious traditions and workforce participation, play an important role in shaping the religious gender gap.

Other key findings in this report include:

- The gender gaps among Christians, as well as some gender differences in other faith traditions, vary in size in different regions of the world. This suggests that while gender differences in religious commitment may be driven in part by the teachings of a particular religion, they also may reflect national habits or cultural views intrinsic to a particular part of the world. In sub-Saharan Africa, for example, the study finds only minor gender differences in both Christian and Muslim populations (with the exception of weekly worship attendance) because of the generally high degree of religious commitment among both genders. For example, in Ghana, $89 \%$ of Christian women and men say religion is very important in their daily lives, as do $98 \%$ of Muslim women and $96 \%$ of Muslim men. In Latin America and the United States, by contrast, the gender gaps among Christians on religion's importance and daily prayer are noticeably wider than they are in sub-Saharan Africa. In Argentina, for example, there is a 20-point gap between men and woman on selfreported rates of daily prayer $-32.5 \%$ of Christian men report praying daily, compared with $52.9 \%$ of Christian women.
- Men and women in the United States differ from each other in their levels of religious commitment to a greater extent than men and women differ in other economically advanced countries for which data are available, including Canada and the United Kingdom. And while American men generally display less religious commitment than American women, both genders are more religious than men and women in other economically advanced countries.
- In the United States, the pattern of women being more religious also appears among the unaffiliated (people who identify as atheist, agnostic or "nothing in particular" and sometimes are called the "nones"). Fewer American women than men ( $19 \%$ vs. $27 \%$ ) are religiously unaffiliated. Moreover, unaffiliated women report higher levels of engagement with religion than unaffiliated men across several indicators, including weekly attendance at religious services ( $5 \%$ vs. $3 \%$ ), daily prayer ( $26 \%$ vs. $15 \%$ ) and saying religion is very important to them ( $15 \%$ vs. $12 \%$ ). ${ }^{12}$

[^5]
## A note about this analysis

This report highlights country-level differences in religious commitment between men and women that pass conventional tests of statistical significance - that is, there is at least a $95 \%$ confidence level that the observed differences are not due to sampling error, after taking into account the size of the sample and the design effects of the survey. On some charts, gender differences that may appear to be large are labeled as not statistically significant because of small sample sizes of women and men in particular religious groups. Data for a particular religious group in each country are used only if that group had at least 300 survey respondents. Except for the measure of religious affiliation, countries are weighted equally when presenting the average gender gap across a number of countries - that is, the size of their populations is not factored into the calculations. In the case of religious affiliation, the population size of each country is considered when computing country and global averages.

## 1. Women more likely than men to affiliate with a religion

The first indicator of religious commitment examined in this study is religious affiliation, that is, whether people report identifying with a faith group. Among women and men ages 20 and older, $83.4 \%$ of women and $79.9 \%$ of men across 192 countries and territories are religiously affiliated, according to estimates made for Pew Research Center's 2015 report "The Future of World Religions: Population Growth Projections 2010-2050." ${ }^{13}$

In about a third of the 192 countries (61), women are at least 2 percentage points more likely than men to have a religious affiliation. In the remaining countries (131), women and men are about equally likely to affiliate with a religious group. In 83 of the 131 countries, more than $98 \%$ of both men and women identify with a religious group, making affiliation nearly universal with little room for any gender gap. ${ }^{14}$ Notably, there are no countries in which men are more religiously affiliated than women by 2 percentage points or more.

[^6]
## Women more likely than men to be affiliated

Percentages of men and women ages 20+ who are religiously unaffiliated or affiliated across 192 countries

|  | Unaffiliated: 20.1\% | Affiliated: 79.9\% |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | 20.1 | 29.9 | 20.6 | 14.6 | 7.3 | 6.4 |
|  |  | Christian | Muslim | Hindu | Buddhist | Folk religion |
|  | Unaffiliated: 16.6 |  | ted: 83.4 |  |  |  |
| Women | 16.6 | 33.7 | 20.1 | 13.6 | 8.6 | 6.2 |



Other religions: $0.9 ل$
Note: Figures may not sum to $100 \%$ or subtotals indicated due to rounding.
Jewish: 0.2
Source: Pew Research Center analysis of global census and survey data
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The distribution of men and women varies within different religious groups. Women are slightly more numerous among Buddhists (54\%), Christians (53\%) and Jews (52\%). Women are slightly less prevalent among Hindus (49\%) and adherents of traditional or folk religions (49\%). ${ }^{15}$

Around the world, men markedly outnumber women ( $55 \%$ vs. $45 \%$ ) among religiously unaffiliated populations, which include atheists, agnostics and people who say their religion is "nothing in particular."

## Religiously affiliated more likely to be female

Percentages of men and women ages 2O+ in each major religious group across 192 countries


Source: Pew Research Center analysis of global census and survey data

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[^7]While it is possible to measure lack of religious affiliation using censuses and large-scale demographic surveys, these sources do not generally include "atheist" as a response category in religion questions. Additionally, in many countries there are too few atheists in general population surveys to reliably analyze the characteristics of atheists. However, Pew Research Center has collected sufficient data to analyze the gender composition of people who selfidentify as atheists in eight countries: Australia, the United Kingdom, China, France, Germany, Spain, the United States and Uruguay. ${ }^{16}$

More than two-in-three atheists are men in the United States (68\%) and Uruguay (69\%). Men also represent a clear majority of the atheist population in the gender gap among atheists is smaller (and not statistically significant). Across all eight countries, the average share of atheists who are male is $59 \%$ if the atheist numbers from each country are given equal value. ${ }^{17}$

[^8]
## 2. Gender differences in worship attendance vary across religious groups

Pew Research Center data on frequency of attendance at worship services are available in 81 countries, where an average of $48 \%$ of men and $42 \%$ of women report attending worship services at least once a week. However, the pattern of attendance varies considerably across these countries:

- In 23 of the 81 nations, men and women are about equally likely to attend services weekly.
- In 30 countries, women are more likely than men to report attending services weekly. Most of these countries have Christian majorities or large Christian populations.
- In 28 other countries, men are more likely than women to report attending services weekly, often by large margins. In Afghanistan, for example, the share of men attending services at least once a week exceeds the share of women by 84 percentage points; in Pakistan the margin is 72 points and in Bangladesh it is 66 points. Muslims make up a large share of the population in all of these countries except for Israel, the only country in the world with a majority Jewish population.

This distinctive pattern at the country level is largely explained by religious norms that prioritize male participation in Muslim and Jewish worship services. In most Islamic societies, Muslim men are expected to attend communal Friday midday prayers in the mosque. Women, however, can fulfill the Friday prayers obligation individually, either inside or outside the mosque. Likewise, the Orthodox Jewish tradition does not count women as part of a minyan (at least 10 men needed to hold a service). When Muslim and Orthodox Jewish women do attend communal worship services, they often pray separately from men.

Although Muslim and Orthodox Jewish men are expected to attend worship services, attendance may still be a valid indicator of men's religiousness. On the other hand, the fact that women do not attend as frequently or participate as fully as men in some countries does not necessarily mean they are less pious. Indeed, as discussed in the next chapter, Muslim women and men are about equally likely to report that they pray at least once a day.


Source: Pew Research Center surveys, 2008-2015
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Pew Research Center has data specifically on Muslim attendance patterns in 39 countries. In most of them, Muslims are the largest religious group in the population. Across these 39 countries, a much larger share of Muslim men (70\%) than women (42\%) report attending services weekly, an average gender gap of 28 points.

Among Muslims in the United States, the gender gap in attendance is smaller than the average gap across all 39 countries: $57 \%$ of U.S. Muslim men attend weekly compared with $37 \%$ of U.S. Muslim women, a $20-$ point gap.

## Among Muslims, men attend worship services more often than women in most countries

Percentage-point differences in shares of Muslim women and men who say they attend worship services at least weekly


Source: Pew Research Center surveys, 2008-2015
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Among Christians, a different pattern emerges. Across the 53 countries with enough Christian respondents to analyze data on attendance, $53 \%$ of Christian women and $46 \%$ of Christian men say they attend services at least once a week, an average difference of 7 percentage points. In 28 of these 53 countries, notably larger shares of Christian women than men attend worship services weekly. The largest differences are in Colombia and Italy (which have 20-and 19-point gender gaps, respectively). In 25 of the 53 countries, Christians of both genders are equally likely to regularly attend services.

There are no countries where Christian men are significantly more likely than Christian women to attend services weekly.

Among Christians, women attend worship services more often than men in many countries

Percentage-point differences in shares of Christian women and men who say they attend worship services at least weekly


Israel and the United States together hold about 80\% of the world's Jewish population and they are the two countries with sufficient numbers of Jews to analyze differences in men's and women's attendance at worship services.

In Israel, the share of Jewish men who report attending services weekly is 19 percentage points larger than the share of women who say they attend weekly. This pattern among all Jews is driven primarily by adherents of the Orthodox tradition, who compose roughly $22 \%$ of adult Israeli Jews. Indeed, when the gender gap is calculated separately by Jewish subgroups in Israel, men attend more than women among self-identified Orthodox Jews (Haredi and Dati) and traditional Jews (Masorti Jews, who make up 29\% of adult Israeli Jews). ${ }^{18}$

Among American Jews, the share of men who attend services weekly is 3 percentage points larger than the share of women who attend weekly, a gender gap that is not statistically significant in this case. ${ }^{19}$

[^9]There are only a small number of countries for which Pew Research Center has data on a large enough number of Hindus and Buddhists to permit analysis of the gender gap in attendance. ${ }^{20}$ This study finds no significant gender differences among Hindus in the United States. Similarly, differences are not significant among Buddhist men and women in the three countries for which the Center has data: Malaysia, China and the United States.

Pew Research Center has collected data in 11 countries on worship attendance rates among the religiously unaffiliated, who identify as atheist, agnostic or "nothing in particular." In the United States, there is a small gender difference of 2 percentage points between unaffiliated women (5\%) and men (3\%) who report attending worship services weekly. ${ }^{21}$ In the other 10 countries, there is no significant gender difference in attendance levels among the unaffiliated.

## Few gender differences in worship service attendance for other religious groups, except among Jews in Israel and unaffiliated in U.S.

Percentage-point differences in shares of women and men who say they attend worship services weekly

| Buddhlst |  | MEN 4 WOMEN |  |
| :---: | :---: | :---: | :---: |
| Malaysia |  |  |  |
| United States |  |  |  |
| China | Gender gap is not statistically significant |  |  |
| Hindu U.S. |  |  |  |
| Jewlsh $\begin{array}{r}\text { U.S. } \\ \text { Israel }\end{array}$ | Men > Women 19\% PTS. |  |  |
|  |  |  |  |
| Unaffillated U.S. | Gender gap is not statistically significant | 2\% PTS. | Women > Men |
| U.K. |  |  |  |
| Japan |  |  |  |
| Germany |  |  |  |
| South Korea |  |  |  |
| Spain Czech Republic |  |  |  |
|  |  |  |  |
| China |  |  |  |  |
| Uruguay |  |  |  |
| Australia Canada |  |  |  |  |
|  |  |  | 1 |  |
|  |  | MEN 4 | WOMEN |

Differences in darker shade are statistically significant.
Differences in lighter shade are not statistically significant.
Source: Pew Research Center surveys, 2008-2015
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[^10]
## Gender gap in weekly attendance

Number of countries where ...

|  | Women attend more | Men attend more | No significant difference | Total number of countries |
| :---: | :---: | :---: | :---: | :---: |
| General population | 30 | 28 | 23 | 81 |
| Pattern among ... |  |  |  |  |
| Buddhists | -- | -- | 3 | 3 |
| Christians | 28 | -- | 25 | 53 |
| Hindus | -- | -- | 1 | 1 |
| Jews | -- | 1 | 1 | 2 |
| Muslims | -- | 30 | 9 | 39 |
| Unaffiliated | 1 | -- | 10 | 11 |

Note: Gender differences in attendance patterns among a national
population may differ from gender differences among religious groups within that country. For example, while women attend more frequently than men in the total populations of Kenya and the U.S., Muslim men in these countries attend more than women do. A dash signifies that no countries in the dataset fall into a given category.

Source: Pew Research Center surveys, 2008-2015
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## 3. Women report praying daily at higher rates than men

Another widely accepted indicator of religious commitment is daily prayer. Pew Research Center has collected data on frequency of prayer in 84 countries. In 40 of those countries, there is no significant difference in levels of daily prayer reported by men and women.

But in 43 countries (just over $50 \%$ of the total), women report that they pray daily at greater rates than men, sometimes by margins as wide as 25 percentage points (in Greece) or 20 points (in Italy). In 29 of those 43 countries, the share of women who say they pray at least once a day exceeds the share of men who say the same by 10 percentage points or more. As a result, when all 84 countries are considered together, women surpass men in saying they pray daily by an average of 8 percentage points. This average gender gap is the largest one among all the indicators of religious commitment analyzed for this report.

Israel is the only country where men report praying daily more often than women ( $30 \% \mathrm{vs} .24 \%$ ). This finding reflects, in part, the large population of Orthodox Jews in Israel, as does the pattern seen in weekly attendance.


Source: Pew Research Center surveys, 2008-2015
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Looking at the data by religious group, Christians display the largest gender difference in frequency of prayer. In nearly two-thirds of the 54 countries for which data on Christian prayer practices are available, a larger share of Christian women than Christian men report that they pray daily, often by wide margins. And across all 54 countries, $61 \%$ of Christian women report praying daily compared to $51 \%$ of Christian men, for a gender gap of 10 percentage points.

There are some major regional differences among Christians. In most countries in North and South America and in some European countries, the share of Christian women who pray daily tends to be notably larger than the share of Christian men who pray daily. But in most sub-Saharan African countries, Christian men and women report similarly high levels of daily prayer, resulting in little or no gender gap.

## Among Christians, women pray more often than men in most countries

Percentage-point differences in shares of Christian women and men who say they pray daily


Source: Pew Research Center surveys, 2008-2015
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Muslim women are as likely as Muslim men to report engaging in daily prayer. ${ }^{22}$ This differs from the attendance pattern, in which Muslim men are significantly more likely to report attending worship services weekly. In the vast majority of countries ( 34 out of 40 ) where Muslim populations were surveyed on this topic, similar shares of Muslim men and women ( $71 \%$ and $72 \%$ ) report praying every day. In three of the countries - Uzbekistan, Kosovo and the Palestinian territories - women pray more often than men. And in three other countries - Mozambique, Tanzania and Senegal - Muslim men are more likely than women to report engaging daily in prayer.

## Among Muslims, women and men pray about equally in most countries

Percentage-point differences in shares of Muslim women and men who say they pray daily

| Uzbekistan <br> Palestinian territories | MEN 4 WOMEN |  |  |
| :---: | :---: | :---: | :---: |
|  | Gender gap women > men in 3 countries | 17\% PTS. |  |
|  |  | 12 |  |
| Kosovo in 3 countries 11 |  |  |  |
| Turkey |  |  |  |
| Azerbaijan |  |  |  |
| Bangladesh |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Algeria |  |  |  |
| Kyrgyzstan |  |  |  |
| Tunisia |  |  |  |
| Jordan |  |  |  |
| Thailand |  |  |  |
| Malaysia |  |  |  |
| Bosnia-Herzegovina |  |  |  |
| Niger |  |  |  |
| Iraq |  |  |  |
| Kazakhstan |  |  |  |
| Indonesia |  |  |  |
| Mali Gender gap |  |  |  |
| Uganda |  | OVERALL AVERAGE GAP: W>M 2\% PTS. | not statistically slgnificant in 34 countries |  |
| Chad |  |  |  |  |
| Lebanon |  |  |  |
| Djibouti |  |  |  |
| iran |  |  |  |
| Nigeria |  |  |  |
| Morocco |  |  |  |
| Buirkínä Fȧsö |  |  |  |
| Ghana |  |  |  |
| Russia |  |  |  |
| Ethiopia |  |  |  |
| Pakistan |  |  |  |
| Guinea-Bissau |  |  |  |
| Afghanistan |  |  |  |
| Kenya |  |  |  |
| Tajikistan |  |  |  |
| Egypt |  |  |  |
| Senegal 5 |  |  | Gender gap |  |
| Tanzania | 10 | men > women |  |
| Mozambique | 13 | in 3 countries |  |
|  | MEN 4 | Women |  |

Source: Pew Research Center surveys, 2008-2015
PEW RESEARCH CENTER

[^11]
## A closer look at the gender gap in prayer among Muslims

Classifying people by whether they do or do not say they pray at least once a day helps distinguish between more devout and less observant followers of many religions. However, this distinction may not adequately measure private devotion in Islam because for Muslims, praying five times daily, not just once a day, is a requirement, or "pillar," of religious observance for the faithful. Mindful of this, when Muslim men and women were asked in Pew Research Center surveys about daily prayer, they had an opportunity to say how often they prayed during the day. The results indicate that whether prayer was done five times a day or once a day, the gender differences are about the same. On average, $56 \%$ of Muslim women and $57 \%$ of Muslim men say they pray five times daily, while $72 \%$ of women and $71 \%$ of men say they pray at least once a day. ${ }^{23}$

[^12]Among Hindus, daily prayer is more common among women than men by 29 percentage points in the U.S., but the gender differences among Hindus in India are not statistically significant. ${ }^{24}$ And among Buddhists, women also report a higher rate of daily prayer than men, but the difference is statistically significant only in Japan, where Buddhist women and men vary in their prayer frequency by 10 percentage points.

Among Jews, gender differences are statistically significant in Israel but not the United States. In Israel, men are more likely than women to pray at least once a day by 11 percentage points. This pattern is evident among Orthodox Jews as well as Masorti (traditional) Jews in Israel. ${ }^{25}$

Across the 13 countries where the religiously unaffiliated were asked about prayer habits, women were, on average, slightly more likely than men ( $8 \%$ vs. $5 \%$ ) to say they pray daily. In Uruguay and the United States, the gender gaps were larger, with unaffiliated women in Uruguay 12 percentage points more likely to report praying daily and unaffiliated women in the United States 11 points more likely.

## Some Buddhist and unaffiliated women more likely than men to pray daily; Jewish men in Israel pray daily more than women

Percentage-point differences in shares of women and men in other faiths who say they pray daily


Differences in darker shade are statistically significant. Differences in lighter shade are not statistically significant.

Source: Pew Research Center surveys, 2008-2015
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[^13]
## Gender gap in daily prayer

Number of countries where...

|  | Women <br> pray more | No <br> pray more | Total <br> significant <br> difference | number of <br> countries |
| :--- | :---: | :---: | :---: | :---: |
| General <br> population | 43 | 1 | 40 | 84 |
| Pattern among ... |  |  |  |  |
| Buddhists | 1 | -- | 2 | 3 |
| Christians | 35 | -- | 19 | 54 |
| Hindus | 1 | -- | 1 | 2 |
| Jews | -- | 1 | 1 | 2 |
| Muslims | 3 | 3 | 34 | 40 |
| Unaffiliated | 5 | 0 | 8 | 13 |
| Note: Gender differences in prayer patterns among a national |  |  |  |  |
| population may differ from gender differences among religious |  |  |  |  |
| groups within that country. A dash signifies that no countries in the |  |  |  |  |
| dataset fall into a given category. |  |  |  |  |
| Source: Pew Research Center surveys, 2008-2015 |  |  |  |  |

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## 4. Religion is equally or more important to women than men in most countries

Another measure of religious commitment is how important people say religion is to them personally. In more than half of the 84 countries where data are available on this question (46), men and women are about equally likely to say religion is very important to them.

In 36 other countries, or $43 \%$ of the total, women are more likely than men to say they regard religion as very important in their lives. In 21 of those 36 countries, however, the share of women who say religion is important to them personally exceeds the share of men who say so by 10 percentage points or more. As a result, when all 84 countries are considered together, women surpass men in reporting that religion is very important to them by an average of 5 percentage points.

Men are more likely than women to say religion is very important to them in two countries Mozambique, where the gender difference is 4 percentage points, and Israel, where the gender difference is 5 percentage points.


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Among Christians, data on gender differences relating to religion's importance are available in 54 countries. In 29 of these countries, the gender gap is not statistically significant.

In 24 of the 54 countries, Christian women are more likely than their male counterparts to say religion is very important in their lives by margins ranging from 5 percentage points in Russia and the Dominican Republic to 23 percentage points in South Korea. Liberia is the only country where Christian men are more likely than Christian women to say religion is very important to them. On average, the share of Christian women who say religion is very important (68\%) is 7 percentage points greater than the share of Christian men (61\%) who say this.

Among Christians, religion is more important to women than men in many countries

Percentage-point differences in shares of Christian women and men who say religion is very important to them


Muslim men and women are about equally likely to say religion is very important to them in 38 of the 40 countries where data on this measure are available. On average, $76 \%$ of Muslim men and $76 \%$ of Muslim women say they regard religion as very important in their lives. The remaining two countries are at opposite ends of the spectrum: In Kosovo, Muslim women are 12 percentage points more likely than Muslim men to say religion is personally very important to them; in Albania, Muslim men are 8 percentage points more likely than Muslim women to consider religion very important in their lives.

## Among Muslims, religion holds similar importance to men and women in 38 countries surveyed

Percentage-point differences in shares of Muslim women and men who say religion is very important to them


Source: Pew Research Center surveys, 2008-2015
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On this topic, Jews offer another illustration of differences within one faith group. In the United States, Jewish women are 8 percentage points more likely than men to say religion is very important to them. In Israel, by contrast, Jewish men are 9 percentage points more likely than women to say religion is very important to them. ${ }^{26}$

Among Buddhists, Hindus and the unaffiliated, men and women do not significantly differ on this measure of religious commitment in the limited number of countries where they were asked about it. In the United States, however, unaffiliated women are more likely than their male counterparts to regard religion as a very important part of their lives by a statistically significant margin of 3 percentage points ( $15 \%$ vs. $12 \%$ ). ${ }^{27}$

## Few gender differences in religion's importance for other religious groups, except among unaffiliated in U.S. and Jews



Differences in darker shade and with country name in bold are statistically significant. Differences in lighter shade are not statistically significant.

Source: Pew Research Center surveys, 2008-2015
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[^14]
## Gender gap in importance of religion

Number of countries where reports that religion is very important are more common among ...

|  | Women | Men | No <br> significant <br> difference | Total <br> number of <br> countries |
| :--- | :---: | :---: | :---: | :---: |
| General <br> population | 36 | 2 | 46 | 84 |

Pattern among ...

| Buddhists | - | - | 3 | 3 |
| :--- | :---: | :---: | :---: | :---: |
| Christians | 24 | 1 | 29 | 54 |
| Hindus | - | - | 2 | 2 |
| Jews | 1 | 1 | - | 2 |
| Muslims | 1 | 1 | 38 | 40 |
| Unaffiliated | 1 | -- | 12 | 13 |

Note: Gender differences in importance of religion patterns among a national population may differ from gender differences among religious groups within that country. A dash signifies that no countries in the dataset fall into a given category.

Source: Pew Research Center surveys, 2008-2015
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## 5. Women and men about equally likely to believe in heaven, hell and angels

Pew Research Center surveys in 63 countries have asked Muslims and Christians about belief in heaven, hell and angels. These data are included in this report as an additional way to examine gender differences in religion.

In 47 of the 63 countries ( $75 \%$ ), men and women are about equally likely to profess a belief in heaven. Women are more likely to believe in heaven in 15 countries, often by margins of 5 percentage points or more. Men are more likely to express this belief only in Lebanon. When all 63 countries are considered together, there is only a slight average difference ( 2 percentage points) between the share of women who believe in heaven (91\%) and the share of men who express this belief (89\%).


Source: Pew Research Center surveys, 2008-2015
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## Gender gap in belief in heaven

Number of countries where reports of belief in heaven are more common among ...

|  | Women | Men | No <br> significant <br> difference | Total <br> number of <br> countries |
| :--- | :---: | :---: | :---: | :---: |
| General <br> population | 15 | 1 | 47 | 63 |
| Pattern among ... |  |  |  |  |
| Christians | 5 | 1 | 34 | 40 |
| Jews | -- | -- | 1 | 1 |
| Muslims <br> Unaffiliated | 2 | -- | 35 | 37 |
| Note: Gender differences in belief patterns among a national <br> population may differ from gender differences among religious <br> groups within that country. A dash signifies that no countries in the <br> dataset fall into a given category. |  |  |  |  |
| Source: Pew Research Center surveys, 2008-2015 |  |  |  |  |

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Belief in hell shows a similar pattern.
Men and women in 52 of 63 countries ( $83 \%$ ) are about equally likely to say they believe in hell. Women hold this belief more than men in 10 countries, while men surpass women in this belief in Lebanon. Overall, when the 63 countries are taken together, an average of $81 \%$ of women and $80 \%$ of men believe in hell.


## Gender gap in belief in hell

Number of countries where reports of belief in hell are more common among ...

|  | Women | Men | No significant difference | Total number of countries |
| :---: | :---: | :---: | :---: | :---: |
| General population | 10 | 1 | 52 | 63 |
| Pattern among ... |  |  |  |  |
| Christians | 4 | 2 | 34 | 40 |
| Jews | -- | -- | 1 | 1 |
| Muslims | 3 | -- | 34 | 37 |
| Unaffiliated | 1 | -- | 1 | 2 |

[^15]PEW RESEARCH CENTER

When it comes to belief in angels, men and women are about equally likely to profess belief in these celestial beings in 48 of 63 countries surveyed (76\%). In 14 countries, women believe in angels to a greater degree than men do. Only in Pakistan do men believe in angels more than women. Across all 63 countries, a greater share of women than men believe in angels by an average gap of 3 percentage points.


## Gender gap in belief in angels

Number of countries where reports of belief in angels are more common among ...

|  | Women | Men | No <br> significant <br> difference | Total <br> number of <br> countries |
| :--- | :---: | :---: | :---: | :---: |
| General <br> population | 14 | 1 | 48 | 63 |
| Pattern among ... |  |  |  |  |
| Christians | 9 | 1 | 29 | 39 |
| Muslims | 2 | 1 | 36 | 39 |
| Unaffiliated | 1 | -- | -- | 1 |
| Note: Gender differences in belief patterns among a national <br> population may differ from gender differences among religious <br> groups within that country. A dash signifies that no countries in the <br> dataset fall into a given category. |  |  |  |  |
| Source: Pew Research Center surveys, $2008-2015$ |  |  |  |  |

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Looking at Christians only, there are just a handful of countries where the genders differ significantly in their beliefs in these concepts. A larger share of Christian men believe in heaven in only one country (Lebanon); Christian men are more likely than Christian women to believe in hell in two countries (the United States and Lebanon) and to believe in angels in one country (Zambia). On the other hand, more Christian women than Christian men profess belief in heaven in five countries (Russia, Bosnia-Herzegovina, Chile, Botswana and the United States), in hell in four countries (Kazakhstan, Russia, Bosnia-Herzegovina and Chile) and in angels in nine countries (Kazakhstan, Russia, Uruguay, Bosnia-Herzegovina, Chile, Argentina, Ecuador, Uganda and Guatemala).

Muslim men and women also share similar levels of belief in these matters except in a few countries. In Pakistan, for instance, Muslim men are more likely than Muslim women to believe in angels. Muslim women are more likely than Muslim men to believe in angels in two countries (Russia and Kazakhstan), to believe in hell in three countries (Guinea-Bissau, Russia and BosniaHerzegovina) and to believe in heaven in two countries (Russia and Uzbekistan).

Among unaffiliated populations surveyed about beliefs in two countries, the United States and Uruguay, women are more likely than men to believe in heaven in the United States ( $48 \%$ vs. 36\%). Unaffiliated women in the United States also are more likely than unaffiliated men to believe in hell ( $32 \%$ vs. $28 \%$ ). But, in Uruguay, equal shares of unaffiliated men and women (18\%) believe in hell.

Among Jews in the United States, there were no significant differences in the shares of women and men who believed in heaven or hell. Jews in the United States were not asked about belief in angels. Data on religious beliefs among Jews in Israel were not available.

## 6. In the U.S., religious commitment is high and the gender gap is wide

Compared with some other economically advanced countries, religious commitment in the United States is exceptionally high. When it comes to daily prayer, religion's importance in people's lives and weekly attendance at worship services, Americans of both genders display greater religious engagement than their counterparts in Canada, Germany, Australia, France and the United Kingdom, Pew Research Center data show. ${ }^{28}$

For example, $64 \%$ of American women and $47 \%$ of American men say they pray daily. Of the five other economically advanced countries analyzed, Canada comes closest to the United States on this measure; $30 \%$ of women and $28 \%$ of men in Canada say they pray daily. In France, by comparison, $15 \%$ of women and $9 \%$ of men report praying daily. Similar patterns are seen on the measures of religion's importance and attendance at worship services: American men and women both display higher levels on these measures than men and women in the five other countries.

The U.S. also stands out for having consistently wider gender gaps than any of the other five countries. ${ }^{29}$ In daily prayer, religion's importance and weekly attendance at worship services, American men and women differ from each other to a greater extent than men and women differ in Canada, Germany, Australia, France and the United Kingdom (see graphic, page 51).

Looking at daily prayer, for example, the 17-percentage-point gap between American women and men ( $64 \%$ vs. $47 \%$ ) is nearly double the 9-point gap in the United Kingdom ( $23 \%$ vs. $14 \%$ ), and it dwarfs the 2-point gap in Canada ( $30 \%$ vs. 28\%). ${ }^{30}$ The measure on importance of religion displays a similar pattern. Fully $60 \%$ of American women say religion is very important in their lives, as do $47 \%$ of men, a 13-point difference. Meanwhile, in the United Kingdom, women and men differ on this measure by only 6 percentage points ( $24.7 \%$ vs. $18.3 \%$ ); in Australia the gap is only 7

[^16]percentage points ( $21.3 \%$ vs. $14.7 \%$ ). Gender differences on religion's importance are even smaller in Canada, France and Germany. ${ }^{31}$

## United States more religious, has wider gender gaps than other developed nations

$\%$ of women and men in the general population who pray daily, consider religion very important and attend religious services weekly


[^17][^18]A similar pattern is seen when differences between men and women in the United States on various measures of religious commitment are compared to average gender differences found in Pew Research Center surveys in up to 83 other countries. The U.S. gender gap is often larger than the average.

In daily prayer, for example, the 17-point gap between U.S. men and women far exceeds the average 7-point gap across 83 other countries. Similarly, the 13-point gender gap between American men and women in the importance of religion is considerably larger than the 5-point average gap across a similar number of countries. In both cases, the U.S. gender gap is not the largest of all countries, but it is above average. ${ }^{32}$

The United States has the largest Christian population in the world (more than 243 million as of 2010). On several measures, gender differences among U.S. Christians are either similar to or larger than the average differences among Christians in about 50 other countries.

For example, $50 \%$ of Christian women and $44 \%$ of Christian men in the United States say they attend worship services at least once a week. This 6-point gap is close to the average gap of 7 percentage points among Christians surveyed on this measure in 52 other countries. In the case of prayer, $75 \%$ of Christian women and $61 \%$ of Christian men in the United States say they pray daily. This 14-point gap is larger than the average gender gap of 10 percentage points among Christians surveyed in 53 other countries. Likewise, the 10-point gap between U.S. Christian women and men when it comes to importance of religion ( $73 \%$ vs. $63 \%$ ) is larger than the average gender gap of 6 percentage points among Christians across the 53 other countries where data are available on this measure.

In many countries outside the United States, the religiously unaffiliated share of the population is not large enough to garner a sufficient number of survey respondents (300) for reliable comparison between men and women. However, there are 13 countries with sufficiently large unaffiliated populations, including the United States, where such analysis is possible. Data from Pew Research Center surveys in these countries indicate that the gender gaps among unaffiliated Americans generally are larger than the overall averages from the 12 other countries.

For example, $26 \%$ of unaffiliated women and $15 \%$ of unaffiliated men in the United States say they pray daily, an 11-point difference. The average gap across the 12 other countries on this measure is 3 percentage points. Uruguay, however, has a larger gender gap than the United States on daily

[^19]prayer among its unaffiliated population: $14 \%$ of unaffiliated women and $2 \%$ of unaffiliated men in Uruguay report praying daily, a 12-point gap. When it comes to religion's importance, $15 \%$ of unaffiliated women and $12 \%$ of unaffiliated men in the United States say it is very important to them. This 3-point gap is slightly more than the average gap of 1 percentage point across 12 other countries.

In the United States, $5 \%$ of unaffiliated women and $3 \%$ of unaffiliated men attend religious services weekly, a 2-point gap. The average gap across 10 countries is less than $1 \%{ }^{33}$

[^20]
## 7. Theories explaining gender differences in religion

Women's generally greater level of religiosity has been observed by scholars for decades; it has shown up in surveys going back as far as the 1930s. 34 But not until the 1980s did academics begin a concerted effort to find an explanation for the phenomenon. 35

Initially, some scholars assumed women were universally more religious across all religions and cultures. This assumption was likely reinforced by the early concentration on patterns of religious behavior in predominantly European and North American countries with large Christian populations. Gradually, however, as studies paid increasing attention to other faiths and countries, different patterns of gender differences were detected. Researchers began to find that while women generally were more religious than men, this was not always the case.

More than three decades of research have yielded a large quantity of data and a greater appreciation for the complexities of the relationship between gender and religion - complexities reflected in the data presented in this report. But a definitive, empirically based explanation of why women generally tend to be more religious than men remains elusive. Indeed, as two experts recently wrote, this widely observed pattern is still "a genuine scientific puzzle." ${ }_{3} 6$

Here is a brief summary of some leading theories proffered by experts who have examined the religious gender gap. The explanations generally fall into three broad categories: nature, nurture or a combination of both. ${ }^{37}$

## Nature explains it

Under the "nature" umbrella are theories that variously attribute gender differences in religious commitment to physical or physiological causes such as hormones, genes or biological predispositions.

For example, Baylor University sociologist Rodney Stark postulates that men's physiology specifically their generally higher levels of testosterone - accounts for gender differences in religion. His argument rests on what he views as increasing evidence that testosterone is associated with men's greater propensity to take risks, which he argues is why men are less

[^21]religious than women. By inference, women are more religious because they have less riskpromoting testosterone. ${ }^{38}$

Stark's theory elaborates on an earlier thesis introduced by sociologists John P. Hoffman of Brigham Young University and the late Alan S. Miller. They noted that men appear to have a greater innate tendency to take risks, and therefore are more willing than women to gamble that they will not face punishment in the afterlife. As a result, men are less religious. Since women are generally more risk-averse, this theory posits, they turn to religion to avoid eternal punishment or to secure a place in heaven. Unlike Stark, Hoffman and Miller do not assign a specific source for men's greater willingness to take risks. 39

Baylor University's Matt Bradshaw and Christopher G. Ellison of the University of Texas at San Antonio argue for more exploration of genetic factors. Some studies of biological influences on religious life, they write, suggest that "genetic differences account for roughly a third of the variation" among individuals in various aspects of personal religious devotion. While the two sociologists recognize a role for social and environmental influences, they contend that "biological predispositions remain a viable, and untested, explanation for gender differences in religiosity." ${ }^{40}$

Still within the nature framework, Jeremy Freese of Northwestern University and James D. Montgomery of the University of Wisconsin postulate that psychological differences could throw light on gender differences in religiosity. They advocate for more research into which psychological aspects are most influential on religious devotion and how differences are shaped by genes and social environments. In particular, they would like to see more investigation into how personality traits typically associated with "femininity" and "masculinity" relate to gender differences in religiosity. ${ }^{41}$ As an example of this type of research, they point to a 1991 study by Edward H. Thompson Jr., who surveyed the religiosity of 358 American undergraduates who had completed

[^22]self-profiles using stereotypical feminine and masculine personality traits. ${ }^{42}$ Thompson found that "religiousness is influenced more by a 'feminine' outlook than by being female."

## Nurture explains it

In the nurture category are theories that seek to explain the religious gender gap by such factors as socialization into traditional gender roles, lower rates of female workforce participation and national economic structures.

University of Aberdeen's Marta Trzebiatowska and Steve Bruce, for example, contend that "nothing in the biological make-up of men and women ... explains the gendered difference in religiosity." These differences, the two sociologists write, are better explained by "an amalgam of different social facts" that include women's dominant role in childbirth and death, which keeps women "closer to religion than men." Another factor they cite is men's pressure on women to be religious as a way to control female sexuality. ${ }^{43}$

But the dominant reason for the gender gap, in the view of Trzebiatowska and Bruce, is the "time lag" in the way secularization in modern times has affected men and women. Men's pre-eminent roles in the workforce and public life meant they "were generally affected earlier than women by the secularizing forces that reduced the plausibility of religious beliefs and turned religious rectitude from a necessary condition for citizenship into a personal preference," the two write. As women become more like men in activities outside the home, they theorize, women also may become more similar in levels of religiousness. Indeed, the authors speculate that the religious gender gap may eventually disappear entirely, as gender roles become more alike and gender equality becomes more commonplace: "Enough women are now free of the social roles that coincidentally brought them into the orbit of organized religion to destroy the web of expectations that disposed them to be more favorable, as a class, to religion."

In a related vein, researchers have looked at how women's place in society, especially their rates of workforce participation, might affect their religious commitment. Based on 1983 data from Australia, sociologist David de Vaus of the Australian Institute of Family Studies and political scientist Ian McAllister of Australian National University report that lower rates of female labor force participation "are the major cause" of women's greater religious commitment. Indeed, they find that full-time female workers are not only less religious than women who do not work, but also display a religious orientation similar to men. Work outside the home, the two hypothesize,

[^23]could provide "sociopsychological benefits" otherwise gotten from religion and "makes religion less important and less relevant for some people." ${ }^{44}$

A somewhat different interpretation for working women's lower religious commitment emerges from recent studies in the U.S. by Indiana University-Bloomington sociologist Landon Schnabel. He suggests that women in the labor force, particularly those in high-paying, full-time jobs, are less religious because they receive less social validation and affirmation from religious congregations compared with women who follow more gender-typical roles and expectations. 45 Sociologist Linda Woodhead of Lancaster University theorizes that as Christian women in Europe and North America increasingly entered the labor force starting in the 1960s, they felt the need to create more independent, career-oriented identities separate from or alongside their identities as homemakers. But since most traditional forms of Christianity did not support working women's new identities, women's overall religiosity decreased. "In this complex project of completely refashioning identity, traditional forms of religion are more likely to prove a hindrance to women than a help," Woodhead writes. ${ }^{66}$

An analysis of Pew Research Center data as it relates to female workforce participation and the gender gap is presented in a sidebar at the end of this chapter. (See page 59.)

Social scientists David Voas, Siobhan McAndrew and Ingrid Storm, who are at the University College London and the Universities of Bristol and Manchester, respectively, argue that in Europe, the gender gap decreases (but does not disappear) with modernization. But they contend that the narrowing gap is due more to rising national income per capita than to secularization or growing gender equality. As women gain more security through economic development, "the appeal of

[^24]religious commitment fades," they write, adding that "it is also possible that with economic growth, women's values converge with those of men in terms of secularity and rationality." 47

Their theory dovetails with that of Harvard University's Pippa Norris and University of Michigan's Ronald Inglehart, both political scientists, who propose that differences in "existential security" best explain the religious gender gap. "Women often give higher priority to religion not because of their sex per se, but because they usually experience less security in their lives," being more vulnerable than men to the hardships of "poverty, debt, poor health, old age and lack of physical safety," they write. For this reason, "women give higher priority to security - and religion," which "provides a sense of safety and well-being." ${ }^{48}$

## A synthesis

The nature versus nurture debate is not likely to be settled anytime soon. The "nature" theories that focus on physical, biological or genetic differences between men and women have not found a measurable factor that has been definitively linked to greater religiosity. And the "nurture" theories that pinpoint social factors as the principle mechanism in explaining the religious gender gap all face a problem: Despite the vast social changes and gender role transformations of recent decades, the religious gender gap persists in many societies. As a result, contemporary scholars of religion seem increasingly to be converging on a consensus that the religious gender gap most likely arises from a complicated mix of multiple factors. As one scholar put it, "greater insight into gender differences in religiousness lies ... in the acceptance of complexity."49

[^25]
## Do patterns of female labor force participation help explain the religious gender gap?

One theory discussed in Chapter 7 on why women generally tend to be more religious than men is that, in many societies, women are less likely than men to work in the labor force, a social role that some studies find is associated with lower levels of religious commitment. Scholars note that a focus solely on home management, which involves more attention and time spent raising children and caring for sick or elderly relatives, appears to encourage stronger religious commitment and more frequent religious activity. ${ }^{50}$ Conversely, work often interferes or competes with involvement in a religious community, which can lead to less-frequent attendance at worship services and weaken a person's religious identity. Work also offers alternatives around which to construct personal and community identities. In addition, it can broaden horizons beyond the family, exposing people to new ideas and ways of life that can challenge traditional religious dogma. Some experts also hypothesize that women in the labor force seek to conform to a prevailing male ethos that may not affirm religious commitment.

[^26]
## Testing the labor force theory

The labor force theory of the religious gender gap leads to two hypotheses. First, women working in the labor force should be less religious than women outside the labor force and therefore more similar to men in their levels of religious commitment. Second, in the aggregate, countries with larger shares of women working in the labor force should have smaller gender gaps overall, compared with countries where few women are in the labor force.

The first hypothesis is supported by a Pew Research Center analysis of data from 47 countries with measures of employment status and religious commitment. ${ }^{51}$ Across these countries, women working in the labor force are less religious, on average, than women outside the labor force across three measures of religious commitment. As a result, the religious gender gaps between women working in the labor force and men are much smaller than the gaps between women not working for pay and men. ${ }^{52}$ For example, women working in the labor force are more likely than men to pray daily by an average of 7 percentage points, whereas women not in the labor force are

## Across many countries, the gender gap with men is smaller for women in the labor force

The average percentage-point difference between women by work status and men on three measures of religious commitment


Note: Data come from Pew Research Center's Global Attitudes spring surveys in 2011, 2013 and 2015 and include 47 countries with measures on prayer and importance of religion. Only 38 out of 47 countries in the Global Attitudes surveys have data on attendance; Muslim respondents in Muslim-majority countries were not asked about attendance patterns. However, in many countries, Muslim men attend services more often than Muslim women.

PEW RESEARCH CENTER more likely than men to pray daily by an average of 13 percentage points. These patterns persist even after accounting for characteristics other than women's work status, such as educational attainment, age, marital status and religious affiliation (for more details, see Methodology, p. 69).

[^27]Pew Research Center's analysis of the data also shows that this general pattern varies across countries. In many countries with large Christian populations, such as Italy, Greece, Chile, Mexico and the United States, women working in the labor force are much less religious than women outside the labor force and are more similar to men. The pattern is different, however, in sub-Saharan Africa, where in countries such as Kenya and Ethiopia, women and men tend to show similarly high levels of religious commitment, regardless of women's work status. Meanwhile, labor force participation also appears to be less of a factor in many Muslim-majority countries, where there are smaller gender gaps in religious commitment to begin with, as well as in other non-Christian countries such as India and China. Despite these variations, the analysis finds that labor force participation is associated with lower levels of religious commitment for women, on average, leading to a smaller gender gap with men than the gender gap between women outside the labor force and men.

Gender gap in importance of religion varies for women in, out of labor force
Percentage-point difference in importance of religion between women (by work status) and men


Bold numbers and darker shades indicate a statistically significant difference between women and men.
Source: Pew Research Center surveys, 2011-2015
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The second hypothesis of the labor force theory anticipates that the share of women working in the labor force should have consequences for the size of the overall gender gap between women and men. In countries where most women stay in the home and few work in the labor force, overall gender gaps in religious commitment should be relatively large. And by contrast, countries with high levels of female labor force participation should have smaller gender gaps.

To test this second hypothesis, researchers combined data on the religious gender gaps among the general population in 81 countries using Pew Research Center surveys with data from the United Nations on the shares of women (ages 15 and older) working in the labor force and other country characteristics. ${ }^{53}$

The analysis finds support for this hypothesis on daily prayer across countries where Christians represent at least $60 \%$ of the total population. Among these predominantly Christian nations, those with larger shares of women working in the labor force tend to have smaller gender differences in daily prayer (e.g., Ethiopia, Rwanda, Tanzania) compared with countries where smaller shares of women are in the labor force (e.g., Italy, Greece, Argentina). Moreover, the strong association between female labor force participation and the gender gap in daily prayer across predominantly Christian countries remains significant even after accounting for national income. ${ }^{54}$

[^28]However, women's labor force participation does not appear to be related to the gender gap in daily prayer across Muslim-majority countries or across countries where neither Christianity nor Islam are predominant (e.g., India, China, Israel). In these countries, differences in the shares of women in the labor force do little to explain why some countries have large religious gender gaps and others have smaller ones.

This pattern - a strong negative association between the share of women in the labor force and the gender gap across predominantly Christian countries, and a lack of association across other countries - is clearest when it comes to the gender gap in daily prayer, but a similar pattern is observed in importance of religion. ${ }^{55}$

[^29]
## In predominantly Christian countries, having more women in the labor force is associated with a smaller gender gap in daily prayer



[^30]PEW RESEARCH CENTER

## In predominantly non-Christian countries, having more women in the labor force is not associated with the size of the gender gap in daily prayer



[^31]PEW RESEARCH CENTER

There are several possible reasons the pattern is different in predominantly Christian countries compared with others. One factor could be how religion is socially framed as feminine or masculine. Some scholars have suggested that norms spread by Christian leaders in some countries have affirmed the role of women in the home, strengthening the religious commitment of women outside the labor force while indirectly undermining the religious commitment of women in the labor force. ${ }^{56}$

Additional factors that might explain the varied relationships between women's work status and the religion gender gap across countries include different cultural and religious perceptions of whether it is socially acceptable for men or women, regardless of work status, to skip weekly worship services or daily prayers. In addition, the kinds of jobs that men and women hold may differ from country to country, leading to different consequences for the relationship between labor force participation and religious commitment. For example, while large shares of women participate in the labor force in subSaharan Africa, their jobs often provide little economic security or stability. This may lead these women to rely more heavily on religion as a source of comfort and social support compared with women who hold better-paying jobs in more economically developed countries.

[^32]
## About this report

This report uses data collected by Pew Research Center. To analyze gender differences in religious affiliation, it draws on estimates of religious composition in 192 countries and territories published in the Center's April 2015 report, "The Future of World Religions: Population Growth Projections, 2010-2050." The estimates are based on data from more than 2,500 censuses and surveys.

To compare men and women on other measures of religious commitment, the study uses survey data collected by Pew Research Center for the general population in 84 countries between 2008 and 2015 . However, the number of countries varies for each measure because not all survey questions were asked in every country. Some of the data come from Pew Research Center's regional studies of religious beliefs and practices. In other cases, the data come from the Center's spring survey of Global Attitudes. For some countries, more than one survey is used in order to incorporate more measures than would be possible using a single survey. Additional details about these surveys are listed in the Methodology. Appendix C lists the sources used for each country in every part of this report.

Pew Research Center surveys have shown that, at least in the United States, religious commitment varies across age groups. This report, however, does not compare varying levels of commitment among people of different ages. ${ }^{57}$

Following conventional survey norms, respondents to surveys used in this report were not usually asked directly about their gender identity, whether they were interviewed face-to-face or by telephone. Rather, interviewers coded interviewees as male or female. ${ }^{58}$

When this report discusses Jewish populations in Israel and the United States, it is referring to Jews who identify as Jewish by religion, as opposed to those who identify as Jewish only by culture or ancestry and not by religion.

For more details on the research methods used in this study, see the Methodology.

[^33]
## Appendix A: Methodology

This appendix provides an overview of the data sources used in the report. It then describes statistical methods used to summarize differences between men and women, including regression analysis methods. Next, it discusses the meaning of the term "gender" in the context of this report. Finally, it concludes with discussion of the thresholds of religious commitment used in this report.

Appendix B explains why this report focuses on absolute differences in religious commitment between men and women. It includes a table listing absolute differences in religious commitment by country as well as alternate ways of measuring the relative differences in religious commitment levels between men and women. Appendix C documents the data sources used in each section of the report. Appendix D lists the question wording for measures of religious commitment and devotion used in each survey.

## Data

Data on gender differences in religious affiliation were collected in order to make the religious population projections reported in Pew Research Center's April 2015 report "The Future of World Religions: Population Growth Projections 2010-2050." The projections in that report were based on religious affiliation by gender and age, rates of religious switching, mortality, fertility and international immigration.

While the April 2015 report focused on total population statistics, this report on gender differences presents for the first time distinct patterns of religious affiliation among men and women within 192 countries that were analyzed for the April 2015 report. The methodology for that report describes how religious affiliation data were estimated using data from more than 2,500 censuses, surveys, population registers and other sources. A list of the primary sources used for each country also is available.

As for the data on various measures of religious commitment presented in this report, they come from a variety of surveys carried out by Pew Research Center between 2008 and 2015. The surveys included:

- Sub-Saharan Africa Survey (2008-2009) of 19 countries: Results and methods reported in the 2010 report "Tolerance and Tension: Islam and Christianity in Sub-Saharan Africa." 59
- Global survey of Islam (2010-2011) of 24 countries: Results and methods reported in the 2012 report "The World's Muslims: Unity and Diversity." The report also used data gathered as part of the sub-Saharan Africa survey. ${ }^{60}$
- Muslim Americans survey (2011): Results and methods reported in 2011 report "Muslim Americans: No Signs of Growth in Alienation or Support for Extremism."
- Asian Americans survey (2012): Results and methods report in 2012 report "Asian Americans: A Mosaic of Faiths."
- Jewish Americans survey (2013): Results and methods reported in 2013 report "A Portrait of Jewish Americans."
- Latin America survey (2013-2014) of 18 countries and the U.S. territory of Puerto Rico: Results and methods reported in the 2014 report "Religion in Latin America: Widespread Change in a Historically Catholic Region."
- Religious Landscape Study (2014): Results and methods reported in 2015 report "America's Changing Religious Landscape."
- Religion in Israel survey (2014-2015): Results and methods reported in 2016 report "Israel's Religiously Divided Society."

[^34]Pew Research Center's spring surveys that measure global attitudes in 25 to 40 countries also collect some data on religion. They ask questions about four indicators of religious commitment: religious affiliation, prayer frequency, frequency of attendance at worship services and how important religion is to a person (salience). This report uses data on these indicators collected during the 2011, 2013 and 2015 Global Attitudes surveys. Details about methods used in the 2011, 2013 and 2015 global attitude surveys are available online. ${ }^{61}$

Using the sources cited above, the report measures gender differences in religious affiliation in 192 countries and territories, and differences in other forms of religious commitment in up to 84 countries. (The number of countries varies for each indicator of religious commitment because data on some measures were not collected in all countries.) Together, results from these sources provide a comprehensive and up-to-date portrait of global gender differences in religious commitment. By comparison, some of the most prominent previous studies on the gender gap relied primarily on various aggregations of World Values Survey data collected in the 1990 from about 57 countries; in 49 of these countries, Christians are the largest religious group. ${ }^{62}$

Because this report relies on data collected by Pew Research Center, it benefits from consistency in survey questions, as well as rigor and transparency in methods and survey design. Surveys from other organizations were examined to help provide additional data in countries without Pew Research Center information. However, they were not ultimately incorporated into this report because their question wording and response categories differed from Pew Research Center surveys, limiting comparability. Others may build on the Center's research by replicating the analysis presented here with other datasets and by extending the line of research to analyze religious commitment in countries not covered by this report.

## Methods

This report presents as statistically significant those differences between men and women for which we can reject the null hypothesis of no differences between the sexes with a $95 \%$ level of confidence. These calculations also take into consideration the design effects, which make estimates of significant difference more conservative as they take complex survey design into consideration. All differences at the country level have been tested for statistical significance, and the country-level differences presented in this report are statistically significant unless noted otherwise.

[^35]The estimates of global religious affiliation in Chapter 1 are weighted by the size of populations within each country. In the rest of this report, data from each country are weighted equally without taking population size into account when calculating averages across all countries.

Because this report aggregates data from a wide range of surveys with complex designs, summary measures of the average differences in religious commitment levels between men and women across all countries are not classified in terms of statistical significance. Rather, the report calls attention to the substantive significance or insignificance of these cross-national averages. Additionally, the report counts the number of countries in which women are more religious, men are more religious, or differences are not statistically significant for each measure.

In order to have sufficient statistical power to make comparisons, this report examines only differences between men and women when the sample size for a particular religious group within a country has at least 300 survey respondents.

## How data on labor force participation were analyzed

Data for the individual-level analysis of the gender gap and women's labor force participation come from Pew Research Center's spring Global Attitudes surveys collected in 2011, 2013, and 2015. Other Pew Research Center surveys, such as the 2014 U.S. Religious Landscape Study, did not ask about labor force participation or did not measure it in a way that was comparable across countries. By contrast, the Global Attitudes surveys provide consistent measurement of religious commitment (in the areas of prayer, attendance at services and religion's importance) and labor force participation in up to 47 countries. ${ }^{63}$

The findings presented in Chapter 7 of the gender gaps between women by work status and men on daily prayer, weekly attendance and the importance of religion were calculated using the same methods employed in the rest of the report; this accounts for country-specific clustering and weighting associated with complex survey design. (See sidebar starting on page 59.) In addition, researchers used multivariate regression techniques to test whether differences by women's work status persisted after adjusting for other demographic factors. For each measure of religious commitment, researchers estimated binary logistic regression models where religious commitment (weekly attendance, daily prayer, religion is "very" important) was predicted by a three-category variable that combined gender and work status (all men, women in the labor force,

[^36]and women not in the labor force), as well as age ( 18 to 29,30 to 49,50 and older), marital status (married, cohabiting, widowed, divorced, separated, never married), relative educational attainment (high vs. low, in order to compare across countries), religious affiliation and country (dichotomous indicators for each country). While the number of respondents surveyed in each country varied, all respondents were weighted so each country had equal influence in the analysis. From these models, researchers calculated average marginal effects for women in and out of the labor force relative to men using the margins command in Stata.

There were statistically significant differences between all three groups on each measure of religious commitment. In all cases, women outside the labor force were significantly more religious than women in the labor force. They also had a significantly larger gender gap with men than did women in the labor force. In addition, there were no significant differences in religious commitment among men by work status.

The results were substantively equivalent in other model specifications, including models in which gender was fully interacted with all covariates, ordered logistic regression models in which the religiosity variables were treated as ordinal rather than dichotomous outcomes, and multilevel logistic regression models in which respondents (level 1) were clustered within countries (level 2). The results were also similar when the sample was restricted to adults ages 25-64 (working-age adults).

Researchers tested whether the results differed between Christians and Muslims on daily prayer and importance of religion (there were not enough Muslims to permit analysis on weekly attendance by religion).

## Predicted gender gaps across countries between women by work status and all men

Percentage-point differences in religious commitment between women in and out of labor force and all men before and after controlling for age, educational attainment, marital status and religious affiliation in multivariate logistic regression models

|  | Without <br> controls | With <br> controls |
| :--- | :---: | :---: |
| Daily prayer |  |  |
| $\quad$ Women OUT of labor force vs. men | $+13 \%$ pts. | 11 |
| $\quad$ Women IN labor force vs. men | 7 | 7 |
| Importance of religion <br> Women OUT of labor force vs. men <br> Women IN labor force vs. men | 9 | 7 |
| Weekly attendance <br> $\quad$ Women OUT of labor force vs. men <br> Women IN labor force vs. men | 11 | 4 |

Note: Data come from Pew Research Center's Global Attitudes spring surveys in 2011, 2013 and 2015, which include 47 countries with measures of religious commitment and work status. Muslim respondents in Muslim-majority countries were not asked about attendance patterns. Predicted gender gaps (marginal effects) are calculated from logistic regression models that control for gender/work status, age, religious affiliation, educational attainment, marital status and country. Each country is weighted equally $(\mathrm{N}=1,000)$.
PEW RESEARCH CENTER On daily prayer, there were significant differences between the two religious groups. For Christian women, being in the labor force was associated with lower religiosity and a smaller gender gap with men. Muslim women, by contrast, had similar levels of daily prayer, regardless of their labor force participation. This difference between religious groups was not found in importance of religion.

The second analysis, which examined the association between female labor force participation rate and the overall gender gap at the country level, relied on multiple data sources for a broader set of 81 countries. ${ }^{64}$ The religious gender gaps in daily prayer, importance of religion and weekly

[^37]attending for the general population in each country were measured using the best available Pew Research Center surveys (see Sources, page 112). Data on women's labor force participation rate came from the United Nation's 2015 Human Development Report.

The association between the religious gender gap and women's labor force participation rate was different among predominantly Christian countries compared with Muslim-majority countries and countries where neither Christianity nor Islam is predominant. In countries where Christians represent at least $60 \%$ of the total population, women's labor force participation was negatively associated with the size of the religious gender gap on all three measures of commitment. Among these countries, the correlation coefficients between women's labor force participation rate and the size of the gender gap were -0.64 on daily prayer, -0.38 on importance of religion, and -0.50 on weekly attendance, indicating that the size of the gender gap decreased as the share of women in the labor force increased (values close to -1 and 1 indicate a strong association, values close to 0 indicate a weak association).

Women's labor force participation was weakly related to the religious gender gap among Muslimmajority countries and in countries where neither Christianity nor Islam is predominant. Among predominantly Muslim countries, the correlation coefficients between women's labor force participation rate and the size of the gender gap were 0.04 on daily prayer, -0.14 on importance of religion, and 0.15 on weekly attendance, indicating a very weak association. Similarly, among countries where neither Christianity nor Islam are predominant, the correlation coefficients between women's labor force participation rate and the size of the gender gap were -0.29 on daily prayer, -0.20 on importance of religion, and 0.02 on weekly attendance.

In multivariate linear regression models, the association between women's labor force participation and the religious gender gap was statistically significant among predominantly Christian countries on daily prayer and importance of religion, but it was not statistically significant for weekly attendance at worship services. The regression models also showed that the association among predominantly Muslim countries was weaker and significantly different from that of predominantly Christian countries on daily prayer. There was also a weaker association among other countries (where neither Christians nor Muslims are predominant) compared with predominantly Christian countries, but the difference was only marginally significant. Researchers tested these differences by interacting women's labor force participation rate with the largest religious group (Christian [>60\%], Muslims [ $>60 \%$ ], and other). There was a similar pattern on importance of religion, but it was only marginally significant.

Linear regression models also showed that the negative association between women's labor force participation and the gender gap in daily prayer at the country level among predominantly

Christian countries remained statistically significant after controlling for gross national income per capita. Gross national income per capita is an indicator of economic development and was measured using data from the United Nation's 2015 Human Development Report. The association between women's labor force participation and the gender gap in the importance of religion among predominantly Christian countries was statistically significant after controls, but differences in the association between countries by largest religion (Muslim, other groups) were not significant. Among predominantly Muslim countries, this difference was largely due to an outlier country, Algeria, which had low levels of female labor force participation and a large gender gap. When Algeria was removed from the analysis of religion's importance, the interaction term for predominantly Muslim countries was statistically significant before controlling for income and marginally significant ( p -value $=0.52$ ) after controlling for income.

## Definitions of 'sex' and 'gender'

Respondents to surveys used in this report were not usually asked directly about their gender identity, regardless of whether they were interviewed face to face or by telephone. Rather, interviewers coded interviewees as male or female. ${ }^{65}$ This report does not distinguish between transgender people, whose gender is different from their sex assigned at birth, and people whose gender and sex assigned at birth are the same. Pew Research Center asked about transgender identity and religion in a 2013 survey of LGBT Americans, but there were too few transgender respondents to make statistical comparisons. The Center has not asked about transgender identity in international surveys.

Social scientists often make a conceptual distinction between sex and gender. In general, "sex" is used to refer to biological differences between males and females, e.g., differences in anatomy, physiology and hormones, while "gender" refers to the social categories of men and women and the different rules and expectations for behavior, appearance and temperament that accompany those categories. ${ }^{66}$ Gender also is thought to be more fluid than sex - not only can men and women act or dress in ways that make them appear more or less feminine or masculine, but, in the case of people who identify as transgender, one's gender also can differ from the sex assigned at birth.

When discussing differences in religiousness between men and women in this report, we use the term "gender gap" first and foremost for methodological reasons: In our surveys, we do not ask respondents about their physiological traits or verify whether respondents' gender corresponds to

[^38]their sex assigned at birth. For this reason, it would be inappropriate and potentially misleading to some readers to refer to "sex differences" in religious commitment when we have information only on respondents' gender. At the same time, by using the term "gender" rather than "sex," we are not claiming that gender differences in religious commitment are only social and not rooted, at least in part, in biology. While social scientists disagree about the degree to which biological and social factors explain one's level of religiousness, it is possible that both sets of factors play some role and may even reinforce one another to produce religious differences between men and women. (See Chapter 7 for information on the theories about the religious gender gap.)

## Consequences of alternate thresholds for measuring religious commitment

This report analyzes gender differences in the shares of men and women who report high levels of religious commitment. Other researchers have sometimes chosen lower thresholds of religious commitment to measure the gender gap - e.g., whether religion is merely "important" as opposed to "very important," or whether one attends services at least monthly as opposed to weekly. In some cases, lower thresholds for religious commitment yield different results for the gender gap in a given country. There are sometimes larger gender differences at lower levels of commitment in less religious countries. For instance, in Germany, where $22 \%$ of women and $19 \%$ of men say religion is "very important," a much larger share of women than men ( $60 \%$ vs. $47 \%$ ) say religion is at least "somewhat important."

However, lowering the bar for religious commitment also can obscure or minimize gender differences in highly religious countries where most people - both women and men - say religion is somewhat or very important. For example, in Paraguay, where women are more likely than men to say religion is "very important" ( $63 \%$ vs. $48 \%$ ), large shares of women and men are about equally likely to say religion is at least somewhat important ( $95 \%$ and $93 \%$ ).

Given the global focus of this report and the inclusion of highly religious countries in subSaharan Africa and the Middle East and North Africa, which often have been overlooked in prior studies, Pew Research Center chose a relatively high threshold of religious commitment to compare across countries. Other studies that focus on countries in Europe or the Asia-Pacific region, which tend to be less

## Different thresholds of religious commitment reveal similar patterns in the gender gap across countries

Number of countries where women are more religious, men are more religious, and there are no significant differences in religious commitment

|  | Religion in daily life is... |  | Religious service attendance... |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Very important | Somewhat or very important | Never attends | Rarely or never attends |
| Women>Men | 36 | 33 | 22 | 26 |
| Men>Women | 2 | 2 | 30 | 34 |
| No significant difference | 46 | 49 | 30 | 22 |

PEW RESEARCH CENTER religious than countries in other regions of the world, might make different decisions about the appropriate threshold for comparison. Even so, there were similar gender patterns across countries in the importance of religion, regardless of whether the threshold was "very important" or "somewhat important." In most countries included in this report, the significance and direction of the gender gap did not change when the lower threshold was considered. So, for example, when asked if religion was "somewhat important," the
gender gap was no longer significant in nine countries and became statistically significant in six countries.

In addition, some scholars have pointed out that the gender gap in religion also can be framed in terms of men being less religious than women. For instance, in the United Kingdom, where women are 5 percentage points more likely than men to attend religious services weekly ( $15 \%$ of women vs. $10 \%$ of men), men are 11 percentage points more likely than women to never attend religious services ( $45 \%$ of men vs. $34 \%$ of women). Overall, Pew Research Center data on religious service attendance reveal a similar (but reversed) gender-gap pattern in those who never or rarely attend religious services. In many predominantly Christian countries, where women are more likely than men to say they attend weekly, men are more likely to never or rarely attend religious services. Similarly, in Muslim-majority countries, where men are more likely than women to say they attend weekly, women are also more likely to never or rarely attend services.

## Appendix B: Absolute and relative gender gaps

There are several ways to describe gender gaps between men and women. One can measure the absolute value of the percentage-point difference between the religious commitment of women and men. A limitation of this approach is that it does not capture the relative difference between women and men, which is more pronounced if a behavior is relatively rare. For example, if $20 \%$ of women and $10 \%$ of men attend worship services in a given week, then this absolute difference of 10 percentage points could result in congregations with twice as many women as men. ${ }^{67}$ However, if $90 \%$ of women and $80 \%$ of men attend services, then this difference of 10 percentage points could result in congregations that are $53 \%$ female and $47 \%$ male, a more equal distribution. Measuring the ratio of religious commitment among women to religious commitment among men captures these relative differences. In the first example, the ratio is 2.0 to 1 and in the second example, the ratio is 1.1 to 1 .

A limitation of measuring relative differences is that results depend upon how the calculation is framed. If $20 \%$ of women and $10 \%$ of men attend services in a given week, this also means that $80 \%$ of women and $90 \%$ of men do not attend services in a given week. Thus, the ratio for the gender difference in attendance is either 2.0 to 1 or 0.9 to 1 , depending on whether the comparison is frequent attendance or its complement, the lack of frequent attendance. Focusing on the absolute value of the percentage-point difference avoids this problem because the absolute value is the same in either case.

To account for the complementary ways of measuring relative differences, David Voas and colleagues suggest using an adjusted relative difference method that summarizes results from both approaches. ${ }^{68}$ They calculate the gender gap as the geometric mean of the religiousness ratio (the relative difference between women's and men's likelihood of being highly religious) and the un-religiousness ratio (the relative difference between men's and women's likelihood of not being highly religious).

In the previous example, the religiousness ratio, or the degree to which women are more religious than men, is 2.0 to 1 ( $20 \%$ of women attend weekly vs. $10 \%$ of men; $20 / 10=2.0$ ). The unreligiousness ratio, or the degree to which men are more un-religious than women, is 1.125 to 1 ( $90 \%$ of men do not attend weekly vs. $80 \%$ of women; $90 / 80=1.125$ ). The un-religiousness ratio is reversed for the calculation - men's un-religiousness divided women's, rather than women's divided by men's - so that both ratios are in the same direction (greater than 1.0 to 1). To calculate

[^39]the gender gap, Voas and colleagues then take the geometric mean of these two ratios, which is the squareroot of their product. In this example, the adjusted relative gender gap is 1.5 to 1 (sqrt[2.0*1.125]). This
adjusted relative difference method is elegant though its meaning is less intuitive than the absolute or unadjusted relative differences.

Because absolute differences are easier to understand and because results are similar across approaches, this report presents gender gaps in religious commitment and beliefs as absolute differences between men and women. However, researchers at Pew
Research Center also conducted analyses using the adjusted relative difference method. In general, the results were similar. The correlation between the absolute difference and the adjusted relative difference was moderate to high for all

## Religious gender gaps in the United States compared to other countries in absolute and relative terms

$\%$ of women and men in the general population who pray daily, consider religion "very important" and attend religious services weekly

|  | Women | Men | Absolute <br> difference | Adjusted <br> relative <br> difference |
| :--- | :---: | :---: | :---: | :---: |
| Daily Prayer | $64 \%$ | $47 \%$ | +17 | 1.43 |
| United States | 23 | 14 | 9 | 1.36 |
| United Kingdom | 22 | 14 | 9 | 1.34 |
| Germany | 15 | 9 | 6 | 1.31 |
| France | 21 | 14 | 6 | 1.24 |
| Australia | 30 | 28 | 2 | 1.05 |
| Canada |  |  |  |  |
| Religion is "very important" | 60 | 47 | 13 | 1.29 |
| United States | 21 | 15 | 7 | 1.25 |
| Australia | 25 | 18 | 6 | 1.21 |
| United Kingdom | 30 | 26 | 4 | 1.11 |
| Canada | 22 | 19 | 3 | 1.09 |
| Germany | 14 | 13 | 2 | 1.07 |
| France |  | 10 | 5 | 1.24 |
| Weekly Attendance | 15 | 17 | 6 | 1.21 |
| United Kingdom | 23 | 32 | 8 | 1.20 |
| Canada | 6 | 3 | 1.27 |  |
| United States | 40 | 9 | 3 | 1.11 |
| France | 18 | -1 | 0.96 |  |
| Australia | 8 | 9 |  |  |

Note: Differences in italics are statistically significant. Adjusted relative difference calculated using method from Voas, David, Siobhan McAndrew, and Ingrid Storm. 2013. "Modernization and the gender gap in religiosity: Evidence from cross-national European surveys." Kölner Zeitschrift für Soziologie und Sozialpsychologie. Values in difference column are calculated from unrounded numbers.

Source: Pew Research Center surveys, 2008-2015
PEW RESEARCH CENTER measures of religious commitment in the general population. The overall ranking of countries from largest to smallest gender gap on a given measure was also similar regardless of whether the absolute or adjusted relative difference was used. Using the relative versus the absolute approach affects only the magnitude of the difference, not its direction or statistical significance.

One place where there were important differences between the absolute and relative measures was in the comparison between the United States and other economically advanced countries (see Chapter 6, page 50). In absolute terms, the United States has much wider gender gaps on weekly attendance, daily prayer and the importance of religion than do Canada, Australia, United Kingdom, France or Germany (the U.S. is also much more religious than these countries). When the gender gap is considered in relative terms, using the adjusted relative difference, the United States still has larger gender gaps in daily prayer and the importance of religion than any of the other five countries. But when it comes to weekly attendance, Canada and the U.K. have larger relative gender gaps than the United States. This is because far fewer men and women attend religious services weekly in Canada and the U.K. compared to the United States, making smaller absolute gender differences much larger in relative terms.

Below are tables showing the absolute difference, unadjusted relative difference and adjusted relative difference for every country by religious-commitment measure for the general population and for each religion:

| Weekly attendance, general population <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Afghanistan | -84 | Men | 0.1 | 0.1 |
| Albania | -2 | * | 0.8 | 0.9 |
| Algeria | -33 | Men | 0.5 | 0.5 |
| Argentina | 13 | Women | 2.0 | 1.5 |
| Australia | 3 | * | 1.2 | 1.1 |
| Azerbaijan | -4 | Men | 0.1 | 0.3 |
| Bangladesh | -66 | Men | 0.2 | 0.2 |
| Bolivia | 5 | * | 1.1 | 1.1 |
| Bosnia-Herzegovina | -11 | Men | 0.7 | 0.8 |
| Botswana | 11 | Women | 1.2 | 1.3 |
| Brazil | 12 | Women | 1.3 | 1.3 |
| Cameroon | 3 | * | 1.0 | 1.1 |
| Canada | 6 | Women | 1.4 | 1.2 |
| Chad | -15 | Men | 0.8 | 0.6 |
| Chile | 10 | Women | 1.7 | 1.4 |
| China | 0 | * | 1.2 | 1.1 |
| Colombia | 20 | Women | 1.5 | 1.5 |
| Costa Rica | 13 | Women | 1.3 | 1.3 |
| Czech Republic | 0 | * | 1.0 | 1.0 |
| Democratic Republic of the |  |  |  |  |
| Congo | 3 | * | 1.0 | 1.1 |
| Djibouti | -5 | Men | 0.9 | 0.8 |
| Dominican Republic | 16 | Women | 1.4 | 1.4 |


| Weekly attendance, general population <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Ecuador | 9 | Women | 1.3 | 1.2 |
| Egypt | -15 | Men | 0.8 | 0.7 |
| El Salvador | 16 | Women | 1.3 | 1.4 |
| Ethiopia | 3 | * | 1.0 | 1.1 |
| France | 3 | * | 1.6 | 1.3 |
| Germany | -1 | * | 0.9 | 1.0 |
| Ghana | 4 | * | 1.0 | 1.2 |
| Greece | 11 | Women | 2.2 | 1.6 |
| Guatemala | 8 | Women | 1.1 | 1.2 |
| Guinea-Bissau | -2 | * | 1.0 | 0.9 |
| Honduras | 15 | Women | 1.3 | 1.4 |
| Indonesia | -36 | Men | 0.6 | 0.3 |
| Iran | -10 | Men | 0.8 | 0.8 |
| Iraq | -45 | Men | 0.3 | 0.4 |
| Israel | -19 | Men | 0.5 | 0.6 |
| Italy | 20 | Women | 1.9 | 1.6 |
| Japan | 2 | * | 1.5 | 1.3 |
| Jordan | -31 | Men | 0.6 | 0.5 |
| Kazakhstan | -3 | * | 0.7 | 0.8 |
| Kenya | 14 | Women | 1.2 | 1.6 |
| Kosovo | -21 | Men | 0.3 | 0.5 |
| Kyrgyzstan | -33 | Men | 0.1 | 0.3 |
| Lebanon | -19 | Men | 0.6 | 0.7 |
| Liberia | 2 | * | 1.0 | 1.1 |
| Lithuania | 9 | Women | 2.5 | 1.7 |
| Malaysia | -40 | Men | 0.4 | 0.4 |
| Mali | -14 | Men | 0.8 | 0.6 |
| Mexico | 10 | Women | 1.3 | 1.2 |
| Morocco | -27 | Men | 0.6 | 0.6 |
| Mozambique | -2 | * | 1.0 | 0.9 |
| Nicaragua | 15 | Women | 1.3 | 1.4 |
| Niger | -20 | Men | 0.8 | 0.3 |
| Nigeria | -10 | Men | 0.9 | 0.6 |
| Pakistan | -72 | Men | 0.2 | 0.1 |
| Palestinian territories | -40 | Men | 0.5 | 0.4 |
| Panama | 10 | Women | 1.2 | 1.2 |
| Paraguay | 11 | Women | 1.4 | 1.3 |
| Peru | 14 | Women | 1.5 | 1.4 |
| Philippines | 15 | Women | 1.3 | 1.4 |
| Poland | 8 | * | 1.2 | 1.2 |
| Puerto Rico | 10 | Women | 1.2 | 1.2 |
| Russia | 0 | * | 1.0 | 1.0 |
| Rwanda | 5 | Women | 1.1 | 1.2 |


| Weekly attendance, <br> general population | \% point <br> difference <br> (women- <br> men) | More <br> religious | Ratio of <br> women:men <br> religiousness | difference is not statistically significant) |
| :--- | ---: | :---: | :---: | :---: |
| Adender <br> gap ratio |  |  |  |  |
| Senegal | -52 | Men | 0.5 | 0.2 |
| South Africa | 20 | Women | 1.4 | 1.5 |
| South Korea | 12 | Women | 1.5 | 1.3 |
| Spain | 7 | Women | 1.6 | 1.3 |
| Tajikistan | -56 | Men | 0.1 | 0.2 |
| Tanzania | 3 | $*$ | 1.0 | 1.1 |
| Tunisia | -21 | Men | 0.6 | 0.6 |
| Turkey | -47 | Men | 0.3 | 0.3 |
| Uganda | -3 | $*$ | 1.0 | 0.9 |
| Ukraine | 4 | $*$ | 1.4 | 1.2 |
| United Kingdom | 5 | Women | 1.5 | 1.2 |
| United States | 8 | Women | 1.3 | 1.2 |
| Uruguay | 6 | Women | 1.6 | 1.3 |
| Uzbekistan | -18 | Men | 0.1 | 0.3 |
| Venezuela | 5 | $*$ | 1.2 | 1.2 |
| Zambia | 3 | $*$ | 1.0 | 1.1 |


| Weekly attendance, Christians <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) ) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Argentina | 13 | Women | 1.8 | 1.5 |
| Australia | -3 | * | 0.9 | 0.9 |
| Bolivia | 5 | * | 1.1 | 1.1 |
| Bosnia-Herzegovina | 11 | Women | 1.6 | 1.3 |
| Botswana | 10 | Women | 1.2 | 1.2 |
| Brazil | 11 | Women | 1.3 | 1.3 |
| Cameroon | 9 | Women | 1.1 | 1.2 |
| Canada | 6 | * | 1.2 | 1.1 |
| Chad | -1 | * | 1.0 | 1.0 |
| Chile | 9 | Women | 1.5 | 1.3 |
| Colombia | 20 | Women | 1.5 | 1.5 |
| Costa Rica | 11 | Women | 1.2 | 1.3 |
| Democratic Republic of the |  |  |  |  |
| Congo | 2 | * | 1.0 | 1.1 |
| Dominican Republic | 14 | Women | 1.3 | 1.3 |
| Ecuador | 9 | Women | 1.3 | 1.2 |
| El Salvador | 10 | Women | 1.2 | 1.3 |
| Ethiopia | 4 |  | 1.1 | 1.1 |
| France | 3 | * | 1.5 | 1.3 |
| Germany | 1 | * | 1.1 | 1.1 |


| Weekly attendance, Christians <br> (* = difference is not statistically significant) | \% point difference (womenmen) $\qquad$ | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Ghana | 3 | * | 1.0 | 1.1 |
| Greece | 11 | Women | 2.1 | 1.5 |
| Guatemala | 6 | Women | 1.1 | 1.2 |
| Guinea-Bissau | -4 | * | 0.9 | 0.9 |
| Honduras | 10 | Women | 1.2 | 1.3 |
| Italy | 19 | Women | 1.8 | 1.5 |
| Kazakhstan | 3 | * | 2.1 | 1.5 |
| Kenya | 16 | Women | 1.2 | 1.7 |
| Lebanon | 1 | * | 1.0 | 1.0 |
| Liberia | 1 | * | 1.0 | 1.0 |
| Lithuania | 9 | Women | 2.3 | 1.6 |
| Mexico | 9 | Women | 1.2 | 1.2 |
| Mozambique | O | * | 1.0 | 1.0 |
| Nicaragua | 13 | Women | 1.2 | 1.3 |
| Nigeria | -2 | * | 1.0 | 0.9 |
| Panama | 9 | Women | 1.2 | 1.2 |
| Paraguay | 11 | Women | 1.4 | 1.3 |
| Peru | 13 | Women | 1.4 | 1.3 |
| Philippines | 16 | Women | 1.4 | 1.4 |
| Poland | 6 | * | 1.1 | 1.1 |
| Puerto Rico | 7 | Women | 1.2 | 1.2 |
| Russia | 3 | * | 1.7 | 1.3 |
| Rwanda | 5 | * | 1.1 | 1.2 |
| South Africa | 18 | Women | 1.3 | 1.4 |
| South Korea | 12 | Women | 1.2 | 1.3 |
| Spain | 9 | Women | 1.4 | 1.3 |
| Tanzania | 4 | * | 1.1 | 1.2 |
| Uganda | -5 | * | 0.9 | 0.9 |
| Ukraine | 4 | * | 1.3 | 1.2 |
| United Kingdom | 5 | * | 1.2 | 1.2 |
| United States | 6 | Women | 1.1 | 1.1 |
| Uruguay | 5 | * | 1.3 | 1.2 |
| Venezuela | 5 | * | 1.2 | 1.1 |
| Zambia | 2 | * | 1.0 | 1.1 |


| Weekly attendance, Muslims | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| (* $=$ difference is not statistically significant) |  |  |  |  |
| Afghanistan | -84 | Men | 0.1 | 0.1 |
| Albania | -3 | * | 0.5 | 0.7 |
| Algeria | -34 | Men | 0.5 | 0.5 |
| Azerbaijan | -3 | * | 0.1 | 0.3 |
| Bangladesh | -76 | Men | 0.2 | 0.1 |
| Bosnia-Herzegovina | -32 | Men | 0.3 | 0.4 |
| Chad | -30 | Men | 0.7 | 0.3 |
| Djibouti | -5 | Men | 0.9 | 0.8 |
| Egypt | -16 | Men | 0.8 | 0.7 |
| Ethiopia | -2 | * | 1.0 | 0.9 |
| Ghana | 0 | * | 1.0 | 0.8 |
| Guinea-Bissau | -2 | * | 1.0 | 0.8 |
| Indonesia | -38 | Men | 0.6 | 0.3 |
| Iran | -10 | Men | 0.8 | 0.8 |
| Iraq | -49 | Men | 0.2 | 0.3 |
| Jordan | -31 | Men | 0.6 | 0.5 |
| Kazakhstan | -6 | * | 0.6 | 0.7 |
| Kenya | -7 | Men | 0.9 | 0.7 |
| Kosovo | -24 | Men | 0.3 | 0.5 |
| Kyrgyzstan | -37 | Men | 0.1 | 0.2 |
| Lebanon | -34 | Men | 0.3 | 0.4 |
| Malaysia | -68 | Men | 0.3 | 0.1 |
| Mali | -17 | Men | 0.8 | 0.6 |
| Morocco | -27 | Men | 0.6 | 0.6 |
| Mozambique | o | * | 1.0 | 1.0 |
| Niger | -21 | Men | 0.8 | 0.3 |
| Nigeria | -18 | Men | 0.8 | 0.4 |
| Pakistan | -73 | Men | 0.2 | 0.1 |
| Palestinian territories | -40 | Men | 0.5 | 0.4 |
| Russia | -26 | Men | 0.2 | 0.4 |
| Senegal | -57 | Men | 0.4 | 0.2 |
| Tajikistan | -57 | Men | 0.1 | 0.2 |
| Tanzania | -2 | * | 1.0 | 0.9 |
| Thailand | -64 | Men | 0.3 | 0.2 |
| Tunisia | -22 | Men | 0.6 | 0.6 |
| Turkey | -48 | Men | 0.3 | 0.3 |
| Uganda | 3 | * | 1.0 | 1.3 |
| United States | -20 | Men | 0.7 | 0.7 |
| Uzbekistan | -18 | Men | 0.1 | 0.3 |


| Weekly att religio $\text { (* }=\text { difference is } n$ | dance, other groups <br> statistically signific | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Buddhists | China | -1 | * | 0.0 | 0.0 |
|  | Malaysia | 5 | * | 3.6 | 1.9 |
|  | United States | 5 | * | 1.5 | 1.3 |
| Hindus | United States | 9 | * | 1.6 | 1.3 |
| Jews | Israel | -19 | Men | 0.5 | 0.6 |
|  | United States | -3 | * | 0.8 | 0.9 |
| Unaffiliated | Australia | -1 | * | 0.0 | 0.0 |
|  | Canada | -2 | * | 0.5 | 0.7 |
|  | China | 0 | * |  |  |
|  | Czech Republic | O | * |  |  |
|  | Germany | 1 | * | 2.2 | 1.5 |
|  | Japan | 1 | * |  |  |
|  | South Korea | 1 | * | 1.6 | 1.3 |
|  | Spain | O | * | 1.5 | 1.2 |
|  | United |  |  |  |  |
|  | Kingdom | 1 | * | 3.5 | 1.9 |
|  | United States | 2 | Women | 1.6 | 1.3 |
|  | Uruguay | 0 | * | 0.0 | 0.0 |


| Daily prayer, general population <br> (* $=$ difference is not statistically significant $)$ | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Afghanistan | -3 | * | 1.0 | 0.7 |
| Albania | 7 | Women | 1.6 | 1.3 |
| Algeria | 5 | * | 1.1 | 1.3 |
| Argentina | 22 | Women | 1.8 | 1.6 |
| Australia | 6 | Women | 1.4 | 1.2 |
| Azerbaijan | 8 | * | 1.1 | 1.3 |
| Bangladesh | 7 | * | 1.1 | 1.2 |
| Bolivia | 11 | Women | 1.2 | 1.2 |
| Bosnia-Herzegovina | 7 | Women | 1.3 | 1.2 |
| Botswana | 3 | * | 1.1 | 1.1 |
| Brazil | 15 | Women | 1.3 | 1.4 |
| Burkina Faso | -1 | * | 1.0 | 1.0 |
| Cameroon | 9 | Women | 1.1 | 1.4 |
| Canada | 2 | * | 1.1 | 1.0 |
| Chad | 3 | * | 1.0 | 1.1 |
| Chile | 23 | Women | 1.8 | 1.6 |
| China | 1 | * | 2.7 | 1.6 |



| O point <br> difference <br> (women- <br> population | More <br> men) | Meligious | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :--- | ---: | ---: | ---: | ---: |
| Panama | 8 | Women | 1.1 | 1.2 |
| Paraguay | 13 | Women | 1.2 | 1.6 |
| Peru | 16 | Women | 1.4 | 1.4 |
| Philippines | 8 | Women | 1.1 | 1.2 |
| Poland | 17 | Women | 1.9 | 1.6 |
| Puerto Rico | 18 | Women | 1.3 | 1.5 |
| Russia | 7 | Women | 1.6 | 1.3 |
| Rwanda | 4 | $*$ | 1.1 | 1.1 |
| Senegal | -4 | $*$ | 1.0 | 0.8 |
| South Africa | 15 | Women | 1.3 | 1.4 |
| South Korea | 10 | Women | 1.4 | 1.3 |
| Spain | 14 | Women | 2.3 | 1.7 |
| Tajikistan | -4 | $*$ | 0.9 | 0.9 |
| Tanzania | 1 | $*$ | 1.0 | 1.0 |
| Tunisia | 4 | $*$ | 1.1 | 1.1 |
| Turkey | 11 | $*$ | 1.2 | 1.3 |
| Uganda | 5 | $*$ | 1.1 | 1.1 |
| Ukraine | 17 | Women | 1.8 | 1.5 |
| United Kingdom | 9 | Women | 1.7 | 1.4 |
| United States | 17 | Women | 1.4 | 1.4 |
| Uruguay | 19 | Women | 2.0 | 1.6 |
| Uzbekistan | 16 | Women | 2.0 | 1.6 |
| Venezuela | 13 | Women | 1.3 | 1.3 |
| Vietnam | 9 | Women | 2.1 | 1.5 |
| Zambia | 2 | $*$ | 1.0 | 1.1 |


| Daily prayer, Christians <br> (* = difference is not statistically significant) | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Argentina | 21 | Women | 1.6 | 1.5 |
| Australia | 7 | * | 1.3 | 1.2 |
| Bolivia | 11 | Women | 1.2 | 1.2 |
| Bosnia-Herzegovina | 12 | Women | 1.4 | 1.3 |
| Botswana | O | * | 1.0 | 1.0 |
| Brazil | 13 | Women | 1.2 | 1.3 |
| Burkina Faso | -3 | * | 1.0 | 0.9 |
| Cameroon | 11 | Women | 1.1 | 1.4 |
| Canada | 7 | * | 1.2 | 1.2 |
| Chad | 4 | * | 1.0 | 1.1 |


| Daily prayer, Christians <br> (* = difference is not statistically significant) | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Chile | 22 | Women | 1.7 | 1.6 |
| Colombia | 21 | Women | 1.3 | 1.8 |
| Costa Rica | 10 | Women | 1.1 | 1.4 |
| Democratic Republic of the |  |  |  |  |
| Congo | o | * | 1.0 | 1.0 |
| Dominican Republic | 14 | Women | 1.2 | 1.6 |
| Ecuador | 11 | Women | 1.2 | 1.3 |
| El Salvador | 9 | Women | 1.1 | 1.4 |
| Ethiopia | 4 | * | 1.1 | 1.1 |
| France | 3 | * | 1.3 | 1.1 |
| Germany | 10 | Women | 1.5 | 1.3 |
| Ghana | 6 | * | 1.1 | 1.2 |
| Greece | 25 | Women | 2.0 | 1.7 |
| Guatemala | 2 | * | 1.0 | 1.1 |
| Guinea-Bissau | -5 | * | 0.9 | 0.9 |
| Honduras | 10 | Women | 1.1 | 1.4 |
| Italy | 22 | Women | 2.0 | 1.7 |
| Kazakhstan | 10 | Women | 2.6 | 1.7 |
| Kenya | 8 | Women | 1.1 | 1.2 |
| Lebanon | -1 | * | 1.0 | 1.0 |
| Liberia | 1 | * | 1.0 | 1.1 |
| Lithuania | 19 | Women | 8.6 | 3.3 |
| Mexico | 10 | Women | 1.3 | 1.2 |
| Mozambique | O | * | 1.0 | 1.0 |
| Nicaragua | 11 | Women | 1.2 | 1.4 |
| Nigeria | 5 | Women | 1.1 | 1.5 |
| Panama | 8 | Women | 1.1 | 1.2 |
| Paraguay | 13 | Women | 1.2 | 1.6 |
| Peru | 15 | Women | 1.3 | 1.4 |
| Philippines | 8 | Women | 1.1 | 1.2 |
| Poland | 17 | Women | 1.8 | 1.5 |
| Puerto Rico | 16 | Women | 1.3 | 1.5 |
| Russia | 8 | Women | 1.7 | 1.4 |
| Rwanda | 5 | * | 1.1 | 1.1 |
| South Africa | 12 | Women | 1.3 | 1.3 |
| South Korea | 7 |  | 1.1 | 1.1 |
| Spain | 15 | Women | 2.0 | 1.6 |
| Tanzania | 6 | * | 1.1 | 1.1 |
| Uganda | 5 | * | 1.1 | 1.1 |
| Ukraine | 15 | Women | 1.6 | 1.4 |
| United Kingdom | 16 | Women | 1.9 | 1.5 |
| United States | 14 | Women | 1.2 | 1.4 |
| Uruguay | 15 | Women | 1.4 | 1.3 |


|  | \% point <br> difference <br> (women- <br> men) | More <br> religious | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :--- | ---: | :---: | :---: | :---: |
| $(*=$ difference is not statistically significant) | 14 | Women | 1.3 | 1.3 |
| Venezuela | 2 | $*$ | 1.0 | 1.0 |
| Zambia |  |  |  |  |


| Daily prayer, Muslims | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| (* $=$ difference is not statistically significant) |  |  |  |  |
| Afghanistan | -3 | * | 1.0 | 0.7 |
| Albania | 6 | * | 1.6 | 1.3 |
| Algeria | 5 | * | 1.1 | 1.3 |
| Azerbaijan | 8 | * | 1.1 | 1.3 |
| Bangladesh | 8 | * | 1.1 | 1.2 |
| Bosnia-Herzegovina | 2 | * | 1.1 | 1.1 |
| Burkina Faso | o | * | 1.0 | 1.0 |
| Chad | 1 | * | 1.0 | 1.1 |
| Djibouti | 1 | * | 1.0 | 1.0 |
| Egypt | -6 | * | 0.9 | 0.9 |
| Ethiopia | -1 | * | 1.0 | 1.0 |
| Ghana | o | * | 1.0 | 0.9 |
| Guinea-Bissau | -2 | * | 1.0 | 0.9 |
| Indonesia | 1 | * | 1.0 | 1.1 |
| Iran | 1 | * | 1.0 | 1.0 |
| Iraq | 2 | * | 1.0 | 1.1 |
| Jordan | 4 | * | 1.0 | 1.1 |
| Kazakhstan | 2 | * | 1.2 | 1.1 |
| Kenya | -4 | * | 1.0 | 0.8 |
| Kosovo | 11 | Women | 1.2 | 1.3 |
| Kyrgyzstan | 4 | * | 1.2 | 1.1 |
| Lebanon | 1 | * | 1.0 | 1.0 |
| Malaysia | 2 | * | 1.0 | 1.1 |
| Mali | 1 | * | 1.0 | 1.0 |
| Morocco | 0 | * | 1.0 | 1.0 |
| Mozambique | -13 | Men | 0.8 | 0.7 |
| Niger | 2 | * | 1.0 | 1.1 |
| Nigeria | o | * | 1.0 | 1.0 |
| Pakistan | -2 | * | 1.0 | 1.0 |
| Palestinian territories | 12 | Women | 1.2 | 1.4 |
| Russia | -1 | * | 1.0 | 1.0 |
| Senegal | -5 | Men | 1.0 | 0.8 |
| Tajikistan | -4 | * | 0.9 | 0.9 |


|  | \% point <br> difference <br> (women- <br> men) | More <br> Daily prayer, Muslims <br> (* difference is not statistically significant) | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :--- | ---: | :---: | :---: | :---: |
| Tanzania | -10 | Men | 0.8 | 0.8 |
| Thailand | 3 | $*$ | 1.0 | 1.1 |
| Tunisia | 4 | $*$ | 1.1 | 1.1 |
| Turkey | 11 | $*$ | 1.2 | 1.3 |
| Uganda | 1 | $*$ | 1.0 | 1.1 |
| United States | 5 | $*$ | 1.1 | 1.1 |
| Uzbekistan | 17 | Women | 2.0 | 1.6 |


|  | yer, other <br> s groups <br> statistically signific | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Buddhists | Japan | 10 | Women | 1.3 | 1.2 |
|  | Malaysia | 4 | * | 1.3 | 1.1 |
|  | United States | 8 | * | 1.3 | 1.2 |
| Hindus | India | 3 | * | 1.0 | 1.1 |
|  | United States | 29 | Women | 1.8 | 1.8 |
| Jews | Israel | -11 | Men | 0.6 | 0.7 |
|  | United States | 4 | * | 1.1 | 1.1 |
| Unaffiliated | Australia | 1 | * | 3.8 | 2.0 |
|  | Canada | -8 | * | 0.4 | 0.6 |
|  | China | 0 | * |  |  |
|  | Czech Republic | 2 | * | 2.4 | 1.6 |
|  | France | 6 | Women | 11.9 | 3.6 |
|  | Germany | -2 | * | 0.6 | 0.8 |
|  | Japan | 7 | Women | 1.6 | 1.3 |
|  | South Korea | 3 | * | 1.4 | 1.2 |
|  | Spain <br> United | 2 | * | 2.2 | 1.5 |
|  | Kingdom | -2 | * | 0.4 | 0.6 |
|  | United States | 11 | Women | 1.8 | 1.4 |
|  | Uruguay | 12 | Women | 6.7 | 2.8 |
|  | Vietnam | 7 | Women | 13.1 | 3.8 |


| Religion is "very <br> important," general <br> population | \% point <br> difference <br> (women- <br> men) | More <br> religious | Ratio of <br> romen:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :---: | :---: | :---: | :---: | :---: |


| Afghanistan | -3 | * | 1.0 | 0.8 |
| :---: | :---: | :---: | :---: | :---: |
| Albania | -3 | * | 0.8 | 0.9 |
| Algeria | 10 | Women | 1.2 | 1.3 |
| Argentina | 16 | Women | 1.5 | 1.4 |
| Australia | 7 | Women | 1.4 | 1.3 |
| Azerbaijan | 5 | * | 1.1 | 1.1 |
| Bangladesh | -1 | * | 1.0 | 1.0 |
| Bolivia | 9 | Women | 1.1 | 1.3 |
| Bosnia-Herzegovina | 4 | * | 1.1 | 1.1 |
| Botswana | 1 | * | 1.0 | 1.0 |
| Brazil | 11 | Women | 1.2 | 1.3 |
| Burkina Faso | 1 | * | 1.0 | 1.1 |
| Cameroon | 3 | Women | 1.0 | 1.2 |
| Canada | 4 | * | 1.2 | 1.1 |
| Chad | 1 | * | 1.0 | 1.0 |
| Chile | 12 | Women | 1.3 | 1.3 |
| China | 1 | * | 1.7 | 1.3 |
| Colombia | 14 | Women | 1.2 | 1.5 |
| Costa Rica | 10 | Women | 1.1 | 1.3 |
| Czech Republic | 1 | * | 1.1 | 1.1 |
| Democratic Republic of the |  |  |  |  |
| Congo | 5 | Women | 1.1 | 1.2 |
| Djibouti | -2 | * | 1.0 | 0.9 |
| Dominican Republic | 9 | Women | 1.1 | 1.3 |
| Ecuador | 7 | Women | 1.1 | 1.2 |
| Egypt | -1 | * | 1.0 | 1.0 |
| El Salvador | 7 | Women | 1.1 | 1.3 |
| Ethiopia | 3 | * | 1.0 | 1.1 |
| France | 2 | * | 1.1 | 1.1 |
| Germany | 3 | * | 1.1 | 1.1 |
| Ghana | 3 | * | 1.0 | 1.2 |
| Greece | 15 | Women | 1.5 | 1.4 |
| Guatemala | 3 | * | 1.0 | 1.2 |
| Guinea-Bissau | -1 | * | 1.0 | 0.9 |
| Honduras | 5 | Women | 1.1 | 1.3 |
| India | 4 | * | 1.0 | 1.1 |
| Indonesia | 1 | * | 1.0 | 1.1 |
| Iran | 4 | * | 1.1 | 1.1 |
| Iraq | 1 | * | 1.0 | 1.0 |
| Israel | -5 | Men | 0.9 | 0.9 |
| Italy | 14 | Women | 1.7 | 1.4 |
| Japan | 5 | Women | 1.5 | 1.3 |
| Jordan | O | * | 1.0 | 1.0 |
| Kazakhstan | 2 | * | 1.1 | 1.1 |
| Kenya | 7 | Women | 1.1 | 1.4 |
| Kosovo | 10 | Women | 1.2 | 1.2 |
| Kyrgyzstan | -3 | * | 0.9 | 0.9 |


| Religion is "very important," general population $\left(^{*}=\right.$ difference is not statistically significant $)$ | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Lebanon | 5 | * | 1.1 | 1.1 |
| Liberia | -3 | * | 1.0 | 0.9 |
| Lithuania | 20 | Women | 4.3 | 2.3 |
| Malaysia | 3 | * | 1.0 | 1.1 |
| Mali | 3 | Women | 1.0 | 1.3 |
| Mexico | 6 | * | 1.2 | 1.1 |
| Morocco | 1 | * | 1.0 | 1.1 |
| Mozambique | -4 | Men | 1.0 | 0.8 |
| Nicaragua | 5 | Women | 1.1 | 1.3 |
| Niger | -3 | * | 1.0 | 0.9 |
| Nigeria | 0 | * | 1.0 | 1.0 |
| Pakistan | -4 | * | 1.0 | 0.7 |
| Palestinian territories | 3 | * | 1.0 | 1.1 |
| Panama | 3 | * | 1.0 | 1.1 |
| Paraguay | 15 | Women | 1.3 | 1.4 |
| Peru | 11 | Women | 1.2 | 1.3 |
| Philippines | 2 | * | 1.0 | 1.1 |
| Poland | 19 | Women | 2.0 | 1.6 |
| Puerto Rico | 15 | Women | 1.2 | 1.5 |
| Russia | 6 | Women | 1.5 | 1.2 |
| Rwanda | 7 | Women | 1.1 | 1.5 |
| Senegal | 1 | * | 1.0 | 1.3 |
| South Africa | 18 | Women | 1.3 | 1.7 |
| South Korea | 11 | Women | 1.8 | 1.4 |
| Spain | 12 | Women | 1.8 | 1.5 |
| Tajikistan | -2 | * | 1.0 | 1.0 |
| Tanzania | 2 | * | 1.0 | 1.2 |
| Tunisia | 1 | * | 1.0 | 1.0 |
| Turkey | 3 | * | 1.0 | 1.1 |
| Uganda | 2 | * | 1.0 | 1.1 |
| Ukraine | 11 | Women | 1.6 | 1.4 |
| United Kingdom | 6 | Women | 1.3 | 1.2 |
| United States | 13 | Women | 1.3 | 1.3 |
| Uruguay | 10 | Women | 1.4 | 1.3 |
| Uzbekistan | 1 | * | 1.0 | 1.0 |
| Venezuela | 5 | * | 1.1 | 1.1 |
| Vietnam | 14 | Women | 1.6 | 1.4 |
| Zambia | O | * | 1.0 | 1.0 |


| Religion is "very important," Christians <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Argentina | 14 | Women | 1.4 | 1.3 |
| Australia | 8 | * | 1.3 | 1.2 |
| Bolivia | 8 | Women | 1.1 | 1.2 |
| Bosnia-Herzegovina | 8 | * | 1.3 | 1.2 |
| Botswana | -1 | * | 1.0 | 1.0 |
| Brazil | 9 | Women | 1.1 | 1.3 |
| Burkina Faso | 3 | * | 1.0 | 1.3 |
| Cameroon | 3 | * | 1.0 | 1.2 |
| Canada | 7 | * | 1.2 | 1.2 |
| Chad | -2 | * | 1.0 | 0.9 |
| Chile | 10 | Women | 1.2 | 1.2 |
| Colombia | 13 | Women | 1.2 | 1.5 |
| Costa Rica | 7 | Women | 1.1 | 1.3 |
| Democratic Republic of the |  |  |  |  |
| Congo | 3 | * | 1.0 | 1.2 |
| Dominican Republic | 5 | Women | 1.1 | 1.2 |
| Ecuador | 6 | Women | 1.1 | 1.2 |
| El Salvador | 3 | * | 1.0 | 1.2 |
| Ethiopia | 4 | * | 1.1 | 1.1 |
| France | 1 | * | 1.1 | 1.0 |
| Germany | O | * | 1.0 | 1.0 |
| Ghana | 0 | * | 1.0 | 1.0 |
| Greece | 15 | Women | 1.5 | 1.4 |
| Guatemala | 3 | * | 1.0 | 1.2 |
| Guinea-Bissau | -2 | * | 1.0 | 0.9 |
| Honduras | 2 | * | 1.0 | 1.1 |
| Italy | 14 | Women | 1.6 | 1.4 |
| Kazakhstan | 10 | * | 1.9 | 1.5 |
| Kenya | 9 | Women | 1.1 | 1.5 |
| Lebanon | 9 | * | 1.2 | 1.2 |
| Liberia | -5 | Men | 1.0 | 0.7 |
| Lithuania | 19 | Women | 4.0 | 2.2 |
| Mexico | 5 | * | 1.1 | 1.1 |
| Mozambique | -3 | * | 1.0 | 0.9 |
| Nicaragua | 3 | * | 1.0 | 1.2 |
| Nigeria | 0 | * | 1.0 | 1.0 |
| Panama | 1 | * | 1.0 | 1.0 |
| Paraguay | 14 | Women | 1.3 | 1.3 |
| Peru | 10 | Women | 1.1 | 1.3 |
| Philippines | 2 | * | 1.0 | 1.1 |
| Poland | 18 | Women | 1.9 | 1.5 |
| Puerto Rico | 12 | Women | 1.2 | 1.4 |
| Russia | 5 | Women | 1.4 | 1.2 |


| Religion is "very important," Christians <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Rwanda | 7 | Women | 1.1 | 1.5 |
| South Africa | 15 | Women | 1.2 | 1.6 |
| South Korea | 23 | Women | 1.7 | 1.6 |
| Spain | 12 | Women | 1.6 | 1.4 |
| Tanzania | 2 | * | 1.0 | 1.3 |
| Uganda | 2 | * | 1.0 | 1.1 |
| Ukraine | 9 | Women | 1.4 | 1.3 |
| United Kingdom | 13 | Women | 1.6 | 1.4 |
| United States | 10 | Women | 1.2 | 1.3 |
| Uruguay | 7 | - | 1.2 | 1.1 |
| Venezuela | 2 | * | 1.0 | 1.0 |
| Zambia | O | * | 1.0 | 1.0 |


| Religion is "very important," Muslims <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Afghanistan | -3 | * | 1.0 | 0.8 |
| Albania | -8 | Men | 0.6 | 0.7 |
| Algeria | 9 | * | 1.1 | 1.3 |
| Azerbaijan | 5 | * | 1.1 | 1.1 |
| Bangladesh | O | * | 1.0 | 1.0 |
| Bosnia-Herzegovina | O | * | 1.0 | 1.0 |
| Burkina Faso | O | * | 1.0 | 1.0 |
| Chad | O | * | 1.0 | 1.0 |
| Djibouti | -1 | * | 1.0 | 0.9 |
| Egypt | -2 | * | 1.0 | 0.9 |
| Ethiopia | -2 | * | 1.0 | 0.9 |
| Ghana | 2 | * | 1.0 | 1.3 |
| Guinea-Bissau | -1 | * | 1.0 | 0.9 |
| Indonesia | 0 | * | 1.0 | 1.0 |
| Iran | 4 | * | 1.1 | 1.1 |
| Iraq | O | * | 1.0 | 1.0 |
| Jordan | O | * | 1.0 | 1.0 |
| Kazakhstan | -1 | * | 0.9 | 1.0 |
| Kenya | -2 | * | 1.0 | 0.8 |
| Kosovo | 12 | Women | 1.3 | 1.3 |
| Kyrgyzstan | -4 | * | 0.9 | 0.9 |
| Lebanon | 1 | * | 1.0 | 1.0 |
| Malaysia | 1 | * | 1.0 | 1.1 |


| Religion is "very <br> important," Muslims | \% point <br> difference <br> (women- <br> men) | More <br> religious | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :--- | ---: | :--- | :--- | :--- |
| Mali | 2 | $*$ | 1.0 | 1.2 |
| Morocco | 1 | $*$ | 1.0 | 1.1 |
| Mozambique is not statistically significant) | -3 | $*$ | 1.0 | 0.8 |
| Niger | -4 | $*$ | 1.0 | 0.9 |
| Nigeria | 1 | $*$ | 1.0 | 1.0 |
| Pakistan | -4 | $*$ | 1.0 | 0.7 |
| Palestinian territories | 3 | $*$ | 1.0 | 1.1 |
| Russia | 5 | $*$ | 1.1 | 1.1 |
| Senegal | 0 | $*$ | 1.0 | 1.2 |
| Tajikistan | -2 | $*$ | 1.0 | 1.0 |
| Tanzania | -2 | $*$ | 1.0 | 0.8 |
| Thailand | 0 | $*$ | 1.0 | 1.0 |
| Tunisia | 1 | $*$ | 1.0 | 1.0 |
| Turkey | 3 | $*$ | 1.0 | 1.1 |
| Uganda | -2 | $*$ | 1.0 | 0.8 |
| United States | 7 | $*$ | 1.1 | 1.2 |
| Uzbekistan | 1 | $*$ | 1.0 | 1.0 |


| Religio important," $\mathbf{(}^{*}=\text { difference is } \mathrm{n}$ | is "very <br> other religious ups <br> t statistically significa | \% point difference (womenmen) <br> t) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Buddhists | Japan | 6 | * | 1.4 | 1.2 |
|  | Malaysia | 2 | * | 1.1 | 1.0 |
|  | United States | 4 | * | 1.1 | 1.1 |
| Hindus | India | 3 | * | 1.0 | 1.1 |
|  | United States | 11 | * | 1.4 | 1.3 |
| Jews | Israel | -9 | Men | 0.7 | 0.8 |
|  | United States | 8 | Women | 1.3 | 1.2 |
| Unaffiliated | Australia | 2 | * | 4.2 | 2.1 |
|  | Canada | -3 | * | 0.4 | 0.6 |
|  | China | 0 | * | 0.7 | 0.9 |
|  | Czech Republic | 1 | * | 2.7 | 1.6 |
|  | France | 1 | * | 2.4 | 1.5 |
|  | Germany | -1 | * | 0.9 | 0.9 |
|  | Japan | 0 | * | 1.1 | 1.0 |
|  | South Korea | O | * | 1.3 | 1.1 |
|  | Spain | 3 | * | 1.8 | 1.4 |
|  | United |  |  |  |  |
|  | Kingdom | O | * | 1.1 | 1.0 |


| Religion is "very <br> important," other religious <br> groups | \% point <br> difference <br> (women- <br> men) | More <br> religious | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| difference is not statistically significant) |  |  |  |  |
| United States | 3 | Women | 1.3 | 1.2 |
| Uruguay | -1 | $*$ | 0.8 | 0.9 |
| Vietnam | 7 | $*$ | 1.7 | 1.4 |


| Belief in heaven, general population | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| (* = difference is not statistically significant) |  |  |  |  |
| Albania | 1 | * | 1.0 | 1.0 |
| Algeria | 1 | * | 1.0 | 1.6 |
| Argentina | 8 | Women | 1.1 | 1.3 |
| Azerbaijan | 1 | * | 1.0 | 1.1 |
| Bangladesh | O | * | 1.0 | 1.0 |
| Bolivia | -1 | * | 1.0 | 0.9 |
| Bosnia-Herzegovina | 8 | Women | 1.1 | 1.3 |
| Botswana | 6 | Women | 1.1 | 1.4 |
| Brazil | 3 | * | 1.0 | 1.2 |
| Cameroon | 4 | Women | 1.0 | 1.2 |
| Chad | 2 | * | 1.0 | 1.1 |
| Chile | 10 | Women | 1.1 | 1.3 |
| Colombia | 5 | * | 1.1 | 1.3 |
| Costa Rica | 5 | Women | 1.1 | 1.3 |
| Democratic Republic of the |  |  |  |  |
| Congo | 7 | Women | 1.1 | 1.3 |
| Djibouti | O | * | 1.0 | 0.9 |
| Dominican Republic | 0 | * | 1.0 | 1.0 |
| Ecuador | 4 | * | 1.0 | 1.2 |
| Egypt | O | * | 1.0 | 1.0 |
| El Salvador | 4 | * | 1.0 | 1.3 |
| Ethiopia | 1 | * | 1.0 | 1.2 |
| Ghana | -1 | * | 1.0 | 0.7 |
| Guatemala | 2 | * | 1.0 | 1.2 |
| Guinea-Bissau | 1 | * | 1.0 | 1.1 |
| Honduras | 0 | * | 1.0 | 1.0 |
| Indonesia | O | * | 1.0 | 1.0 |
| Iran | 0 | * | 1.0 | 1.2 |
| Iraq | 1 | * | 1.0 | 1.3 |
| Jordan | -3 | * | 1.0 | 0.8 |
| Kazakhstan | 7 | * | 1.1 | 1.2 |
| Kenya | 0 | * | 1.0 | 0.8 |



| Belief in heaven, Christians <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) ) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Argentina | 3 | * | 1.0 | 1.1 |
| Bolivia | -1 | * | 1.0 | 0.9 |
| Bosnia-Herzegovina | 12 | Women | 1.2 | 1.4 |


| Belief in heaven, Christians <br> (* $=$ difference is not statistically significant) | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Botswana | 4 | Women | 1.0 | 1.3 |
| Brazil | 1 | * | 1.0 | 1.1 |
| Cameroon | 3 | * | 1.0 | 1.2 |
| Chad | 2 | * | 1.0 | 1.3 |
| Chile | 6 | Women | 1.1 | 1.3 |
| Colombia | 4 | * | 1.0 | 1.2 |
| Costa Rica | 2 | * | 1.0 | 1.1 |
| Democratic Republic of the |  |  |  |  |
| Congo | 3 | * | 1.0 | 1.1 |
| Dominican Republic | 0 | * | 1.0 | 1.0 |
| Ecuador | 2 | * | 1.0 | 1.1 |
| El Salvador | 2 | * | 1.0 | 1.2 |
| Ethiopia | 1 | * | 1.0 | 1.1 |
| Ghana | 0 | * | 1.0 | 0.8 |
| Guatemala | 1 | * | 1.0 | 1.2 |
| Guinea-Bissau | 2 | * | 1.0 | 1.1 |
| Honduras | -1 | * | 1.0 | 1.0 |
| Kazakhstan | 16 | * | 1.3 | 1.4 |
| Kenya | O | * | 1.0 | 0.7 |
| Lebanon | -11 | Men | 0.9 | 0.6 |
| Liberia | -1 | * | 1.0 | 0.6 |
| Mexico | 2 | * | 1.0 | 1.1 |
| Mozambique | -1 | * | 1.0 | 0.9 |
| Nicaragua | O | * | 1.0 | 1.0 |
| Nigeria | -1 | * | 1.0 | 0.6 |
| Panama | 1 | * | 1.0 | 1.1 |
| Paraguay | 2 | * | 1.0 | 1.3 |
| Peru | 5 | * | 1.1 | 1.2 |
| Puerto Rico | 4 | * | 1.0 | 1.3 |
| Russia | 13 | Women | 1.2 | 1.3 |
| Rwanda | 0 | * | 1.0 | 1.0 |
| South Africa | 0 | * | 1.0 | 1.0 |
| Tanzania | 2 | * | 1.0 | 1.2 |
| Uganda | 1 | * | 1.0 | 1.1 |
| United States | 3 | Women | 1.0 | 1.2 |
| Uruguay | 9 | * | 1.1 | 1.2 |
| Venezuela | -1 | * | 1.0 | 1.0 |
| Zambia | 0 | * | 1.0 | 1.0 |



|  | \% point <br> Belief in heaven, other <br> religious groups <br> (women- <br> men) | More <br> religious <br> $c^{*}=$ difference is not statistically significant) | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Buddhist | Malaysia | 4 | $*$ |  |  |
|  | United States | 7 | $*$ | 1.1 | 1.1 |
| Hindu | United States | 19 | Women | 1.1 | 1.1 |
| Unaffiliated | United States | 11 | Women | 1.3 | 1.5 |
|  | Uruguay | 10 | $*$ | 1.3 |  |


| Belief in hell, general population | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| ${ }^{*}$ = difference is not statistically significant) |  |  |  |  |
| Albania | o | * | 1.0 | 1.0 |
| Algeria | 2 | * | 1.0 | 1.3 |
| Argentina | 8 | Women | 1.2 | 1.2 |
| Azerbaijan | 1 | * | 1.0 | 1.1 |
| Bangladesh | 1 | * | 1.0 | 1.1 |
| Bolivia | -5 | * | 0.9 | 0.9 |
| Bosnia-Herzegovina | 9 | Women | 1.1 | 1.3 |
| Botswana | 4 | * | 1.0 | 1.1 |
| Brazil | 2 | * | 1.0 | 1.1 |
| Cameroon | 4 | Women | 1.0 | 1.2 |
| Chad | 1 | * | 1.0 | 1.0 |
| Chile | 8 | Women | 1.2 | 1.2 |
| Colombia | 7 | * | 1.1 | 1.2 |
| Costa Rica | 1 | * | 1.0 | 1.0 |
| Democratic Republic of the |  |  |  |  |
| Congo | 3 | * | 1.0 | 1.1 |
| Djibouti | o | * | 1.0 | 1.0 |
| Dominican Republic | 2 | * | 1.0 | 1.1 |
| Ecuador | 1 | * | 1.0 | 1.0 |
| Egypt | -3 | * | 1.0 | 0. 8 |
| El Salvador | o | * | 1.0 | 1.0 |
| Ethiopia | 2 | * | 1.0 | 1.2 |
| Ghana | -3 | * | 1.0 | 0.8 |
| Guatemala | -3 | * | 1.0 | 0.9 |
| Guinea-Bissau | 11 | Women | 1.2 | 1.3 |
| Honduras | 1 | * | 1.0 | 1.0 |
| Indonesia | -1 | * | 1.0 | 0.9 |
| Iran | 0 | * | 1.0 | 1.0 |
| Iraq | 1 | * | 1.0 | 1.1 |
| Jordan | -7 | * | 0.9 | 0.7 |



|  | \% point <br> difference <br> (women- <br> Belief in hell, Christians | More <br> men) | Religious <br> women:men <br> (*) difference is not statistically significant) | Adjusted <br> gender |
| :--- | :---: | :---: | :---: | :---: |
| Argentina | 4 | $*$ | 1.1 | 1.1 |


| Belief in hell, Christians | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| ${ }^{*}=$ difference is not statistically significant |  |  |  |  |
| Bolivia | -5 | * | 0.9 | 0.9 |
| Bosnia-Herzegovina | 12 | Women | 1.2 | 1.3 |
| Botswana | 1 | * | 1.0 | 1.0 |
| Brazil | 1 | * | 1.0 | 1.0 |
| Cameroon | 1 | * | 1.0 | 1.1 |
| Chad | 2 | * | 1.0 | 1.1 |
| Chile | 8 | Women | 1.1 | 1.2 |
| Colombia | 5 | * | 1.1 | 1.1 |
| Costa Rica | -1 | * | 1.0 | 1.0 |
| Democratic Republic of the |  |  |  |  |
| Congo | o | * | 1.0 | 1.0 |
| Dominican Republic | 2 | * | 1.0 | 1.1 |
| Ecuador | -1 | * | 1.0 | 1.0 |
| El Salvador | -3 | * | 1.0 | 0.9 |
| Ethiopia | 2 | * | 1.0 | 1.2 |
| Ghana | -4 | * | 1.0 | 0.7 |
| Guatemala | -4 | * | 1.0 | 0.9 |
| Guinea-Bissau | 7 | * | 1.1 | 1.2 |
| Honduras | o | * | 1.0 | 1.0 |
| Kazakhstan | 16 | Women | 1.4 | 1.4 |
| Kenya | O | * | 1.0 | 1.0 |
| Lebanon | -11 | Men | 0.9 | 0.6 |
| Liberia | -3 | * | 1.0 | 0.9 |
| Mexico | 3 | * | 1.0 | 1.1 |
| Mozambique | -1 | * | 1.0 | 1.0 |
| Nicaragua | -1 | * | 1.0 | 1.0 |
| Nigeria | 4 | * | 1.0 | 1.3 |
| Panama | 3 | * | 1.0 | 1.1 |
| Paraguay | 3 | * | 1.0 | 1.1 |
| Peru | 1 | * | 1.0 | 1.0 |
| Puerto Rico | 1 | * | 1.0 | 1.0 |
| Russia | 13 | Women | 1.2 | 1.3 |
| Rwanda | -2 | * | 1.0 | 0.9 |
| South Africa | 3 | * | 1.0 | 1.1 |
| Tanzania | 2 | * | 1.0 | 1.2 |
| Uganda | -1 | * | 1.0 | 1.0 |
| United States | -2 | Men | 1.0 | 1.0 |
| Uruguay | 7 | * | 1.1 | 1.1 |
| Venezuela | -3 | * | 1.0 | 0.9 |
| Zambia | o | * | 1.0 | 1.0 |

105
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| Belief in hell, Muslims | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Albania | -2 | * | 1.0 | 1.0 |
| Algeria | 1 | * | 1.0 | 1.2 |
| Azerbaijan | 1 | * | 1.0 | 1.1 |
| Bangladesh | 1 | * | 1.0 | 1.1 |
| Bosnia-Herzegovina | 6 | Women | 1.1 | 1.3 |
| Chad | -3 | * | 1.0 | 0.9 |
| Djibouti | o | * | 1.0 | 1.0 |
| Egypt | -4 | * | 1.0 | 0.8 |
| Ethiopia | o | * | 1.0 | 1.0 |
| Ghana | -4 | * | 1.0 | 0.8 |
| Guinea-Bissau | 18 | Women | 1.3 | 1.5 |
| Indonesia | -1 | * | 1.0 | 0.9 |
| Iran | o | * | 1.0 | 1.0 |
| Iraq | o | * | 1.0 | 1.0 |
| Jordan | -7 | * | 0.9 | 0.7 |
| Kazakhstan | o | * | 1.0 | 1.0 |
| Kenya | -2 | * | 1.0 | 0.9 |
| Kosovo | -7 | * | 0.9 | 0.8 |
| Kyrgyzstan | 3 | * | 1.0 | 1.2 |
| Lebanon | -3 | * | 1.0 | 0.6 |
| Malaysia | 2 | * | 1.0 | 1.1 |
| Mali | o | * | 1.0 | 1.0 |
| Morocco | o | * | 1.0 | 1.0 |
| Mozambique | -6 | * | 0.9 | 0.9 |
| Niger | 3 | * | 1.0 | 1.2 |
| Nigeria | o | * | 1.0 | 1.0 |
| Pakistan | -2 | * | 1.0 | 0.7 |
| Palestinian territories | 1 | * | 1.0 | 1.1 |
| Russia | 11 | Women | 1.1 | 1.4 |
| Senegal | -3 | * | 1.0 | 0.8 |
| Tajikistan | o | * | 1.0 | 1.0 |
| Tanzania | 1 | * | 1.0 | 1.1 |
| Thailand | o | * | 1.0 | 0.8 |
| Tunisia | -1 | * | 1.0 | 0.6 |
| Turkey | -1 | * | 1.0 | 1.0 |
| Uganda | -1 | * | 1.0 | 1.0 |
| Uzbekistan | 5 | * | 1.1 | 1.3 |


|  |  | \% point <br> difference <br> Belief in hell, other <br> religious groups <br> (women- <br> men) | More <br> religious | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Buddhist | Malaysia | -3 | $*$ | 1.0 | 0.9 |
|  | United States | 15 | Women | 1.3 | 1.4 |
| Hindu | United States | 7 | $*$ | 1.2 | 1.2 |
| Unaffiliated | United States | 4 | Women | 1.2 | 1.1 |
|  | Uruguay | 0 | $*$ | 1.0 | 1.0 |




|  | \% point <br> difference <br> (women- <br> men) | More <br> religious | Relief in angels, Christians of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :--- | :---: | :---: | :---: | :---: |
| Argentina isference not statistically significant) |  |  |  |  |
| Bolivia | 8 | Women | 1.1 | 1.4 |
| Bosnia-Herzegovina | 0 | $*$ | 1.0 | 1.0 |
| Botswana | 11 | Women | 1.2 | 1.3 |
| Brazil | 2 | $*$ | 1.0 | 1.1 |
| Cameroon | 1 | $*$ | 1.0 | 1.0 |
| Chad | 2 | $*$ | 1.0 | 1.2 |
| Chile | 2 | $*$ | 1.0 | 1.1 |
| Colombia | 9 | $W o m e n$ | 1.1 | 1.4 |
| Costa Rica | 3 | $*$ | 1.0 | 1.1 |
| Democratic Republic of the | 1 | $*$ | 1.0 | 1.1 |


| Belief in angels, Christians <br> (* = difference is not statistically significant) | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Congo |  |  |  |  |
| Dominican Republic | 1 | * | 1.0 | 1.1 |
| Ecuador | 5 | Women | 1.1 | 1.2 |
| El Salvador | 1 | * | 1.0 | 1.1 |
| Ethiopia | 4 | * | 1.1 | 1.1 |
| Ghana | 1 | * | 1.0 | 1.1 |
| Guatemala | 3 | Women | 1.0 | 1.3 |
| Guinea-Bissau | 4 | * | 1.1 | 1.1 |
| Honduras | 1 | * | 1.0 | 1.1 |
| Kazakhstan | 21 | Women | 1.4 | 1.6 |
| Kenya | 0 | * | 1.0 | 1.0 |
| Lebanon | -6 | * | 0.9 | 0.7 |
| Liberia | -1 | * | 1.0 | 1.0 |
| Mexico | 3 | * | 1.0 | 1.1 |
| Mozambique | 0 | * | 1.0 | 1.0 |
| Nicaragua | 1 | * | 1.0 | 1.1 |
| Nigeria | 0 | * | 1.0 | 0.9 |
| Panama | 2 | * | 1.0 | 1.1 |
| Paraguay | 3 | * | 1.0 | 1.3 |
| Peru | 4 | * | 1.1 | 1.2 |
| Puerto Rico | 4 | * | 1.0 | 1.2 |
| Russia | 19 | Women | 1.3 | 1.5 |
| Rwanda | O | * | 1.0 | 1.0 |
| South Africa | 1 | * | 1.0 | 1.1 |
| Tanzania | 2 | * | 1.0 | 1.3 |
| Uganda | 4 | Women | 1.0 | 1.4 |
| Uruguay | 13 | Women | 1.2 | 1.4 |
| Venezuela | 3 | * | 1.0 | 1.1 |
| Zambia | -5 | Men | 0.9 | 0.8 |


| Belief in angels, Muslims <br> ( ${ }^{*}=$ difference is not statistically significant $)$ | \% point difference <br> (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Afghanistan | -1 | * | 1.0 | 0.7 |
| Albania | 6 | * | 1.1 | 1.1 |
| Algeria | 2 | * | 1.0 | 1.6 |
| Azerbaijan | 6 | * | 1.1 | 1.6 |
| Bangladesh | -2 | * | 1.0 | 0.8 |
| Bosnia-Herzegovina | 6 | * | 1.1 | 1.1 |


| Belief in angels, Muslims <br> $\left(^{*}=\right.$ difference is not statistically significant | \% point difference (womenmen) | More religious | Ratio of women:men religiousness | Adjusted gender gap ratio |
| :---: | :---: | :---: | :---: | :---: |
| Chad | -2 | * | 1.0 | 0.9 |
| Djibouti | 3 | * | 1.1 | 1.1 |
| Egypt | o | * | 1.0 | 0.9 |
| Ethiopia | -2 | * | 1.0 | 0.9 |
| Ghana | -2 | * | 1.0 | 0.9 |
| Guinea-Bissau | -3 | * | 1.0 | 0.9 |
| Indonesia | o | * | 1.0 | 1.0 |
| Iran | 1 | * | 1.0 | 1.4 |
| Iraq | 1 | * | 1.0 | 1.2 |
| Jordan | 3 | * | 1.0 | 1.2 |
| Kazakhstan | 11 | Women | 1.2 | 1.3 |
| Kenya | 4 | * | 1.0 | 1.2 |
| Kosovo | 2 | * | 1.0 | 1.1 |
| Kyrgyzstan | 6 | * | 1.1 | 1.2 |
| Lebanon | 1 | * | 1.0 | 1.1 |
| Malaysia | -1 | * | 1.0 | 0.6 |
| Mali | -3 | * | 1.0 | 0.9 |
| Morocco | o | * | 1.0 | 1.1 |
| Mozambique | -2 | * | 1.0 | 0.9 |
| Niger | 1 | * | 1.0 | 1.1 |
| Nigeria | -1 | * | 1.0 | 0.9 |
| Pakistan | -3 | Men | 1.0 | 0.4 |
| Palestinian territories | -1 | * | 1.0 | 0.6 |
| Russia | 12 | Women | 1.2 | 1.3 |
| Senegal | 0 | * | 1.0 | 1.0 |
| Tajikistan | o | * | 1.0 | 1.0 |
| Tanzania | -1 | * | 1.0 | 0.8 |
| Thailand | o | * | 1.0 | 1.0 |
| Tunisia | o | * | 1.0 | 1.0 |
| Turkey | 1 | * | 1.0 | 1.2 |
| Uganda | -2 | * | 1.0 | 1.0 |
| United States | 2 | * | 1.0 | 1.1 |
| Uzbekistan | 7 | * | 1.1 | 1.3 |


|  | \% point <br> difference <br> Belief in angels, other <br> religious groups | women- <br> men) | More <br> religious | Ratio of <br> women:men <br> religiousness | Adjusted <br> gender <br> gap ratio |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Buddhist is not statistically significant) | Malaysia |  |  |  |  |
|  | United States | 10 | $*$ | 1.1 | 1.1 |
| Hindu | United States | 26 | Women | 1.2 | 1.2 |
| Unaffiliated | Uruguay | 17 | Women | 1.6 | 1.7 |

## Appendix C: Sources

This appendix lists the survey sources for estimates of the gender gap by country and religious group for each of the four measures of religious commitment, as well as the data on beliefs, that are examined in this report. Surveys used in the report include Pew Research Center's SubSaharan Africa Survey (SSAS), Global Survey of Islam (GSI), Latin America Survey (LAS), Religion in Israel Survey (RIS) Muslim Americans Survey (MAS), Asian Americans Survey (AAS), Jewish Americans Survey (JAS), the 2014 Religious Landscape Study (RLS), the spring 2011, 2013 and 2015 Global Attitudes surveys (GA2011, GA2013, GA2015). Due to data limitations, it was necessary to use different sources for different measures of religious commitment. Data on the gender composition of atheist populations in Chapter 1 comes from the 2014 Religious Landscape Study in the United States, the 2013 Latin America Survey in Uruguay and the spring 2015 survey of global attitudes for the other six countries.

For some of the labor force and regression analysis in Chapter 7, the report uses only the Center's spring surveys of global attitudes to ensure that questions about labor force participation and other social characteristics were measured consistently across countries. This means that the size or significance of the gender gap in some countries on a given measure may be different in the regression analysis compared with chapters in which a different data source was used.

Legend for Pew Research Center surveys: SSAS (Sub-Saharan Africa Survey), GSI (Global Survey of Islam), LAS (Latin America Survey), RIS (Religion in Israel Survey), MAS (Muslim Americans Survey), AAS (Asian Americans Survey), JAS (Jewish Americans Survey), RLS (the 2014 Religious Landscape Study), GA2011, GA2013, GA2015 (the spring 2011, 2013 and 2015 surveys of global attitudes)

| Country | Religion | Weekly Attendance | Daily Prayer | Importance of Religion | Belief in Heaven | Belief in Hell | Beliefs in Angels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Afghanistan | Total Population | GSI | GSI | GSI |  |  | GSI |
|  | Muslim | GSI | GSI | GSI |  |  | GSI |
| Albania | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Algeria | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Argentina | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Australia | Total Population | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated | GA2013 | GA2015 | GA2015 |  |  |  |
| Azerbaijan | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Bangladesh | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Bolivia | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| BosniaHerzegovina | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Christian | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Botswana | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Brazil | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Burkina Faso | Total Population |  | GA2015 | GA2015 |  |  |  |
|  | Christian |  | GA2015 | GA2015 |  |  |  |
|  | Muslim |  | GA2015 | GA2015 |  |  |  |
| Cameroon | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Canada | Total Population | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated | GA2013 | GA2015 | GA2015 |  |  |  |


| Country | Religion | Weekly Attendance | Daily Prayer | Importance of Religion | Belief in Heaven | Belief in Hell | Beliefs in Angels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chad | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Chile | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| China | Total Population | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Buddhist | GA2013 |  |  |  |  |  |
|  | Unaffiliated | GA2O13 | GA2015 | GA2015 |  |  |  |
| Colombia | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Costa Rica | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Czech Republic | Total Population | GA2013 | GA2013 | GA2013 |  |  |  |
|  | Unaffiliated | GA2O13 | GA2013 | GA2O13 |  |  |  |
| Dem. Rep.of the Congo | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Djibouti | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Dominican Republic | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Ecuador | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Egypt | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| El Salvador | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Ethiopia | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| France | Total Population | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated |  | GA2015 | GA2015 |  |  |  |
| Germany | Total Population | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated | GA2011 | GA2015 | GA2015 |  |  |  |
| Ghana | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Ghana | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |


| Country | Religion | Weekly Attendance | $\begin{gathered} \text { Daily } \\ \text { Prayer } \\ \hline \end{gathered}$ | Importance of Religion | Belief in Heaven | Belief in Hell | Beliefs in Angels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Greece | Total Population | GA2013 | GA2013 | GA2013 |  |  |  |
|  | Christian | GA2013 | GA2013 | GA2O13 |  |  |  |
| Guatemala | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| GuineaBissau | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Honduras | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| India | Total Population | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Hindu | GA2011 | GA2015 | GA2015 |  |  |  |
| Indonesia | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Iran | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Iraq | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Israel | Total Population | RIS | RIS | RIS |  |  |  |
|  | Jewish | RIS | RIS | RIS |  |  |  |
| Italy | Total Population | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2013 | GA2015 | GA2015 |  |  |  |
| Japan | Total Population | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Buddhist |  | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated | GA2011 | GA2015 | GA2015 |  |  |  |
| Jordan | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Kazakhstan | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Christian | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Kenya | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Kosovo | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Kyrgyzstan | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Lebanon | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
| Lebanon | Christian | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |


| Country | Religion | Weekly Attendance | Daily Prayer | Importance of Religion | Belief in Heaven | Belief in Hell | Beliefs in Angels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Liberia | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Lithuania | Total Population | GA2011 | GA2011 | GA2011 |  |  |  |
|  | Christian | GA2011 | GA2011 | GA2011 |  |  |  |
| Malaysia | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Buddhist | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Mali | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Mexico | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Morocco | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Mozambique | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Nicaragua | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Niger | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Nigeria | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Pakistan | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
| Palestinian territories | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Panama | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Paraguay | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Peru | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Philippines | Total Population | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2013 | GA2015 | GA2015 |  |  |  |
| Poland | Total Population | GA2013 | GA2015 | GA2015 |  |  |  |
| Poland | Christian | GA2013 | GA2015 | GA2015 |  |  |  |
| Puerto Rico | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |


| Country | Religion | Weekly Attendance | $\begin{gathered} \text { Daily } \\ \text { Prayer } \\ \hline \end{gathered}$ | Importance of Religion | Belief in Heaven | Belief in Hell | Beliefs in Angels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Russia | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Christian | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Rwanda | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Senegal | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| South Africa | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| South Korea | Total Population | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2013 | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated | GA2013 | GA2015 | GA2015 |  |  |  |
| Spain | Total Population | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated | GA2011 | GA2015 | GA2015 |  |  |  |
| Tajikistan | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Tanzania | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Thailand | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Tunisia | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Turkey | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Uganda | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Muslim | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
| Ukraine | Total Population | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2011 | GA2015 | GA2015 |  |  |  |
| United Kingdom | Total Population | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Christian | GA2011 | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated | GA2011 | GA2015 | GA2015 |  |  |  |
| United States | Total Population | RLS | RLS | RLS | RLS | RLS |  |
|  | Buddhist | AAS | AAS | AAS | AAS | AAS | AAS |
| United States | Christian | RLS | RLS | RLS | RLS | RLS |  |
|  | Hindu | AAS | AAS | AAS | AAS | AAS | AAS |
|  | Jewish | JAS | RLS | JAS | RLS | RLS |  |


| Country | Religion | Weekly Attendance | Daily Prayer | Importance of Religion | Belief in Heaven | Belief in Hell | Beliefs in Angels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Uruguay | Muslim | MAS | MAS | MAS |  |  | MAS |
|  | Unaffiliated | RLS | RLS | RLS | RLS | RLS |  |
|  | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Unaffiliated | LAS | LAS | LAS | LAS | LAS | LAS |
| Uzbekistan | Total Population | GSI | GSI | GSI | GSI | GSI | GSI |
|  | Muslim | GSI | GSI | GSI | GSI | GSI | GSI |
| Venezuela | Total Population | LAS | LAS | LAS | LAS | LAS | LAS |
|  | Christian | LAS | LAS | LAS | LAS | LAS | LAS |
| Vietnam | Total Population |  | GA2015 | GA2015 |  |  |  |
|  | Unaffiliated |  | GA2015 | GA2015 |  |  |  |
| Zambia | Total Population | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |
|  | Christian | SSAS | SSAS | SSAS | SSAS | SSAS | SSAS |

## Appendix D: Question wording from each survey

## Attendance questions

## General questions asked of non-Muslim population

(GA 2011/2013, GSI, LAS, RLS, SSAS)_Aside from weddings and funerals how often do you attend religious services... more than once a week, once a week, once or twice a month, a few times a year, seldom, or never?
(AAS) Aside from weddings and funerals, how often do you [IF NOT BUDDHIST OR HINDU INSERT "ATTEND RELIGIOUS SERVICES"; IF BUDDHIST OR HINDU OR INSERT "GO TO YOUR HOUSE OF WORSHIP"]... more than once a week, once a week, once or twice a month, a few times a year, seldom, or never?

## Question asked of Jews

(JAS) Aside from special occasions like weddings, funerals and bar mitzvahs, how often do you attend Jewish religious services at a synagogue, temple, minyan or Havurah, more than once a week, once a week, once or twice a month, a few times a year, such as for high holidays, seldom, or never?
(RIS) Aside from special occasions like weddings, funerals and bar mitzvahs, how often do you attend religious services at a synagogue, minyan or Havurah, more than once a week, once a week, once or twice a month, a few times a year, such as for high holidays, seldom, or never?

## Questions asked of Muslims

(GSI) On average, how often do you attend the mosque for salat and Jumah Prayer, more than once a week, once a week for Jumah prayer, once or twice a month, a few times a year especially for Eid, seldom, or never?
(MAS, SSAS) On average, how often do you attend the mosque or Islamic Center for salah and Jum'ah Prayer, more than once a week, once a week for Jum'ah Prayer, once or twice a month, a few times a year especially for the Eid, seldom, or never?

## Prayer questions

## General prayer questions for non-Muslim population

(AAS, GSI, LAS, RLS, RIS, SSAS) People practice their religion in different ways. Outside of attending religious services, do you pray several times a day, once a day, a few times a week, once a week, a few times a month, seldom, or never?
(GA) People practice their religion in different ways. Outside of attending religious services, do you pray several times a day, once a day, a few times a week, once a week or less, or never?

## Prayer questions asked of Muslims

(GA) How often, if at all, do you pray: hardly ever, only during religious holidays, only on Fridays, only on Fridays and religious holidays, more than once a week, every day at least once, or every day five times?
(GSI, SSAS) People practice their religion in different ways. Outside of attending religious services, do you pray several times a day, once a day, a few times a week, once a week, a few times a month, seldom, or never?

ASK IF MUSLIM AND PRAYS SEVERAL TIMES A DAY: Do you pray all five salat every day, or not?
(MAS) Concerning daily salah or prayer, do you, in general, pray all five salah daily, make some of the five salah daily, occasionally make salah, only make Eid Prayers, or do you never pray?

## The importance of religion

(Identical wording across surveys: AAS, GA, GSI, JAS, LAS, MAS, RLS, RIS, SSAS) How important is religion in your life - very important, somewhat important, not too important, or not at all important?

## Belief in heaven

(AAS) Which, if any, of the following do you believe in? Do you believe in heaven, where people who have led good lives are eternally rewarded, or not?
(GSI) Which, if any, of the following do you believe: in Heaven, where people who have led [In Turkey: life without sin, In all other countries: good lives] are eternally rewarded?
(LAS) Which, if any, of the following do you believe? Do you believe in Heaven, or not?
(RLS) Do you think there is a heaven, where people who have led good lives are eternally rewarded?
(SSAS) Which, if any, of the following do you believe in, in Heaven, where people who have led good lives are eternally rewarded?

## Belief in hell

(AAS) Which, if any, of the following do you believe in? Do you believe in hell, where people who have led bad lives and die without being sorry are eternally punished, or not?
(GSI) Which, if any, of the following do you believe: in Hell, where people who have led [In Turkey: life of sin, In all other countries: bad lives] and die without being sorry are eternally punished?
(LAS) Which, if any, of the following do you believe? Do you believe in Hell, or not?
(RLS) Do you think there is a hell, where people who have led bad lives and die without being sorry are eternally punished?
(SSAS) Which, if any, of the following do you believe in, in Hell, where people who have led bad lives and die without being sorry are eternally punished?

## Belief in angels

(AAS) Which, if any, of the following do you believe in? Do you believe in angels, or not?
(GSI, SSAS) Which, if any, of the following do you believe in: in angels?
(LAS) Which, if any, of the following do you believe? Do you believe in Angels, or not?
(MAS) Do you believe in angels, or not?


[^0]:    ${ }^{1}$ Figures for the United States are from Pew Research Center's 2014 Religious Landscape Study. Percentages used in this report are based on respondents who provided answers. The percentages in the published Landscape Study are based on the full sample, which includes respondents who replied "don't know" or declined to answer a question.
    ${ }^{2}$ For example, see Argyle, Michael, and Benjamin Beit-Hallahmi. 1975. "The Social Psychology of Religion." Also see Beit-Hallahmi, Benjamin. 2014. "Psychological Perspectives on Religion and Religiosity," in which Beit-Hallahmi asserted the "greater religiosity of women, demonstrated in consistent research findings over the past 100 years, is one of the most important facts about religion." Rodney Stark has argued that the pattern of women being more religious than men "borders upon the universal." See Stark, Rodney. 2002. "Physiology and Faith: Addressing the 'Universal' Gender Difference in Religious Commitment." Journal for the Scientific Study of Religion.
    ${ }^{3}$ See Miller, Alan S., and Rodney Stark. 2002. "Gender and Religiousness: Can Socialization Explanations Be Saved?" American Journal of Sociology. Miller and Stark said differences between men and women in risk preference explain the religious gender gap; they posited greater risk-taking among men has a physiological or hormonal basis, such as testosterone. The article inspired many subsequent papers on the gender gap, which frequently used a common pool of 1990s World Values Survey data, predominantly from Christian-majority countries.

[^1]:    ${ }^{4}$ See Pew Research Center's 2015 report "The Future of World Religions: Population Growth Projections, 2010-2050."
    ${ }^{5}$ In an 85th country (Thailand) Pew Research Center collected data on the Muslim minority community but not the general population.
    ${ }^{6}$ The idea that women are universally more religious than men was prominently challenged by D. Paul Sullins. Yet Sullins conceded the possibility of some universal gender differences, writing, "it appears that the thesis of a universal gender difference should be stated more narrowly: it may apply to affective [interior], but not to active [external], religiousness." Sullins, D. Paul. 2006. "Gender and Religion: Deconstructing Universality, Constructing Complexity." American Journal of Sociology.

[^2]:    ${ }^{7}$ This analysis is based on adults ages 20 and older. Because women live longer than men, on average, there were about 23 million more women than men in these countries as of 2010.
    ${ }^{8}$ Data on affiliation levels of men and women in 2010 come from a mix of 2010-era census and survey data as well as, in some countries, population projections based on data from a slightly earlier period. Due to the complex nature of this data, Pew Research Center selected a 2point difference as a substantive threshold for measuring differences in the affiliation levels of men and women.

[^3]:    ${ }^{9}$ When this report discusses Jewish populations, it is referring to Jews who identify as Jewish by religion, as opposed to those who identify as Jewish only by culture and not by religion. Survey data on Jewish attendance at religious services are available for only two countries, Israel and the United States, which together account for about $80 \%$ of the world's total Jewish population. In Israel and the United States, Orthodox Jewish men report higher rates of synagogue attendance than Orthodox women.

[^4]:    ${ }^{10}$ The modalities of prayer among Christians and among Muslims may seem different enough that comparisons are not valid. While Christian prayer is often done alone, Muslim prayer is often done publicly. However, that is not always the case. Christians, particularly Roman Catholics, often make it a daily practice to attend Mass, a public worship service, and Muslims often say their five daily prayers in the privacy of their homes or in their personal work spaces.
    ${ }^{11}$ Sociologist Linda Woodhead of Lancaster University argued that women's greater religiosity is a feature of Christianity more than other religions. Woodhead said that Christianity, to a greater degree than other religions, extols women's traditional roles as unpaid homemaker and caregiver for family members as the ones closest to the self-sacrificing ideal exemplified by Christ. See Woodhead, Linda. 2008.
    "Gendering Secularization Theory." Social Compass. Also see Woodhead, Linda. 2008. "'Because I'm Worth It': Religion and Women's Changing Lives in the West." In Aune, Kristin, Sonya Sharma and Giselle Vincett, eds. "Women and Religion in the West."

[^5]:    ${ }^{12}$ See Pew Research Center's 2014 report "U.S. Public Becoming Less Religious."

[^6]:    ${ }^{13}$ Except for the discussion of atheists, the affiliation analysis in this chapter is based on respondents ages 20 and older; it computes population-weighted averages (that is, the population size of each country is considered when computing individual country and global affiliation averages). The analyses of atheist affiliation and for all other measures of religious commitment in this report are based on adults ages 18 and older and countries are weighted equally, regardless of population size, when computing averages.
    ${ }^{14}$ Generally, there tends to be a gender gap in affiliation when a considerable share of a country's population is unaffiliated. There are 61 countries that have gender gaps in affiliation of at least 2 percentage points; in 43 of them (including the United States) at least $10 \%$ of the population is unaffiliated. However, among the 131 countries where there is an affiliation gender gap of less than 2 percentage points, in only four (Russia, France, Vietnam and Mongolia) is at least $10 \%$ of the population unaffiliated. In these four nations, however, the differences between men and women in affiliation do not reach the threshold of 2 percentage points.

[^7]:    ${ }^{15}$ Examples of traditional or folk religions include African traditional religions, Chinese folk religions, Native American religions and Australian aboriginal religions.

[^8]:    ${ }^{16}$ The atheist share of these samples was 23\% in France, 15\% in China, 14\% in Australia, 14\% in the United Kingdom, 13\% in Germany, 12\% in Spain, 10\% in Uruguay and 3\% in the United States.
    ${ }^{17}$ However, when the actual number of atheists in each of the eight countries is taken into account, the average share of atheists who are male drops to $53 \%$, due largely to the influence of China's considerable population of self-identified atheists.

[^9]:    18 For more information on differences among Israeli subgroups, see Pew Research Center's 2016 report "Israel's Religiously Divided Society."
    19 U.S. figures come from Pew Research Center's 2013 survey of the U.S. Jewish population.

[^10]:    ${ }^{20}$ All analyses in this report are based on a minimum sample size of 300 respondents (men and women combined) for each religious group considered in each country.
    ${ }^{21}$ Pew Research Center's 2014 U.S. Religious Landscape Study included a very large sample of unaffiliated respondents, providing the statistical power to ensure that this 2-point difference is statistically significant.

[^11]:    ${ }^{22}$ However, a study comparing frequency of prayer in time-diary data and in survey data found that women were more likely than men to overreport prayer frequency in Turkey and the Palestinian territories. The study did not find this effect in Pakistan. See Brenner, Philip S. 2013. "Testing the Veracity of Self-Reported Religious Practice in the Muslim World." Social Forces.

[^12]:    ${ }^{23}$ There are exceptions to this pattern. For instance, there are several countries where the share of women who report praying at least once a day is larger than the share of men doing so and there are no gender differences in praying five times daily (e.g., Kyrgyzstan, Albania and Kosovo). In addition, in some countries where there are no gender differences in daily prayer, there are differences in the shares of women and men who report praying five times a day. In Nigeria, for example, Muslim women are 5 percentage points more likely than Muslim men to pray five times a day, while there is no significant difference in the shares of Muslim men and women who report praying daily.

[^13]:    24 This report looked only at data on daily prayer and importance of religion for Hindus and the general population in India.
    ${ }^{25}$ Among self-identified Orthodox Jews, the pattern of men being more likely than women to pray daily is evident only among Dati Jews, who make up 13\% of adult Israeli Jews. The gender gap among Haredi Jews (who make up 9\% of adult Israel Jews) is not statistically significant.

[^14]:    ${ }^{26}$ Unlike the pattern seen in prayer, the overall gender gap in the importance of religion among Israeli Jews as a group is driven not by gender differences among Orthodox Jews but instead by large gender differences among Masorti ("traditional") Jews. See Pew Research Center's 2016 report "Israel's Religiously Divided Society."
    ${ }^{27}$ Larger sample sizes provide greater precision and allow for greater confidence in the statistical significance of relatively small differences between groups. While the gender gap of 3 percentage points among the unaffiliated in the U.S. is small compared to the gender gap in Vietnam, the U.S. gap is statistically significant because of the large sample of respondents in the 2014 Religious Landscape Study ( 7,480 unaffiliated respondents). By contrast, the 2015 Global Attitudes survey in Vietnam had 617 unaffiliated respondents.

[^15]:    Note: Gender differences in belief patterns among a national population may differ from gender differences among religious groups within that country. A dash signifies that no countries in the dataset fall into a given category.

    Source: Pew Research Center surveys, 2008-2015

[^16]:    ${ }^{28}$ Of the countries analyzed in this report, these five countries have the highest gross domestic product per capita after the United States, according to the International Monetary Fund's World Economic Outlook Database as of October 2015.
    ${ }^{29}$ The estimate of the gender gap in the U.S. relies on data from Pew Research Center's 2014 U.S. Religious Landscape Study. Percentages in the published 2014 Landscape Study may be slightly different from ones in this chapter because the former are based on the Landscape Study's full sample, which includes respondents who replied "don't know" or declined to answer a question. Percentages in this chapter are based only on respondents who provided answers.
    ${ }^{30}$ Researchers found similarly large U.S. gender gaps in other Pew Research Center surveys, including the 2007 U.S. Religious Landscape Study and the 2011 and 2015 Global Attitudes surveys. Data from the 2014 General Social Survey, collected by NORC at the University of Chicago, also show similarly large gender gaps in the U.S. ( 23 percentage points on prayer, 7 percentage points on attendance; question on importance of religion was not asked).

[^17]:    Bold numbers indicate statistically significant difference between men and women. Values in gap column are calculated based on unrounded numbers.

    Source: Pew Research Center surveys, 2008-2015
    PEW RESEARCH CENTER

[^18]:    ${ }^{31}$ This section focuses on the absolute size of the gender gap (percentage-point difference between men and women). However, the patterns are somewhat different when focusing on the relative differences in the gender gap (the ratio of women's religious commitment to men's religious commitment). For details, see Appendix B.

[^19]:    ${ }^{32}$ Women are more likely than men to pray daily by 25 percentage points in Greece, 23 points in Chile and 19 points in Uruguay. And women are more likely than men to say religion is very important in their lives by 14 percentage points in Colombia, 15 points in Greece and 16 points in Argentina.

[^20]:    ${ }^{33}$ Unaffiliated respondents were asked about attendance at worship services in only 10 of the 12 countries (besides the United States) where the unaffiliated sample size was large enough for analysis.

[^21]:    ${ }^{34}$ Gallup Jr., George H. Dec. 17, 2002. "Why Are Women More Religious?" Gallup.
    ${ }^{35}$ See bibliography of De Vaus, David, and Ian McAllister. 1987. "Gender Differences in Religion: A Test of the Structural Location Theory." American Sociological Review.
    ${ }^{36}$ Lizardo, Omar, and Jessica L. Collett. 2009. "Rescuing the Baby from the Bathwater: Continuing the Conversation on Gender, Risk, and Religiosity." Journal for the Scientific Study of Religion.
    ${ }^{37}$ Advocates of "nature" explanations often assert that women are universally more religious than men. See, for example, Beit-Hallahmi, Benjamin. 2014. "Psychological Perspectives on Religion and Religiosity."

[^22]:    38 Stark, Rodney. 2002. "Physiology and Faith: Addressing the 'Universal' Gender Difference in Religious Commitment." Journal for the Scientific Study of Religion. See also Miller, Alan S., and Rodney Stark. 2002. "Gender and Religiousness: Can Socialization Explanations Be Saved?" American Journal of Sociology.
    39 Miller, Alan S., and John P. Hoffmann. 1995. "Risk and Religion: An Explanation of Gender Differences in Religiosity." Journal for the Scientific Study of Religion. In making their argument for risk-taking as an explanation for men's lesser engagement with religion, Hoffman and Miller cited 17th century French mathematician Blaise Pascal. He posited that believing in God is less risky than not believing in God because the latter carries the possibility of eternal damnation. This is widely known as Pascal's Wager. Miller and Hoffman's argument is disputed in Roth, Marie Louise, and Jeffrey C. Kroll. 2007. "Risky Business: Assessing Risk Preference Explanations for Gender Differences in Religiosity." American Sociological Review.
    Others argue risk-taking level is based in socialization. See Collett, Jessica L., and Omar Lizardo. 2009. "A Power-Control Theory of Gender and Religiosity." Journal for the Scientific Study of Religion.
    ${ }^{40}$ Bradshaw, Matt, and Christopher G. Ellison. 2009. "The Nature-Nurture Debate Is Over, and Both Sides Lost! Implications for Understanding Gender Differences in Religiosity." Journal for the Scientific Study of Religion.
    ${ }^{41}$ Freese, Jeremy, and James D. Montgomery. 2007. "The Devil made her do it? Evaluating Risk Preference as an Explanation of Sex
    Differences in Religiousness" in Shelley J. Correll, ed. "Social Psychology of Gender (Advances in Group Processes, Volume 24)."

[^23]:    ${ }^{42}$ Some of the stereotypical "feminine" traits include being affectionate, sympathetic, sensitive to others' needs, compassionate, warm, tender, loving to children and risk-averse. See Thompson Jr., Edward H. 1991. "Beneath the Status Characteristics: Gender Variations in Religiousness." The Journal for the Scientific Study of Religion.
    ${ }^{43}$ Trzebiatowska, Marta, and Steve Bruce. 2012. "Why Are Women More Religious Than Men?" Pages 172-175.

[^24]:    ${ }^{44}$ De Vaus, David, and Ian McAllister. 1987. "Gender Differences in Religion: A Test of the Structural Location Theory." American Sociological Review. De Vaus and McAllister wrote that their findings did not apply to women in the United States where workforce participation "does not appear to affect female religious orientation." They hypothesized that this may be because in the United States "religion is much more part of the dominant culture than it is in Australia." However, a small, 2013 study of elite working women in the United States produced countervailing findings. See Hastings, Orestes P., and D. Michael Lindsay. 2013. "Rethinking Religious Gender Differences: The Case of Elite Women." Sociology of Religion.
    ${ }^{45}$ Schnabel, Landon. Forthcoming. "The Gender Pray Gap: Wage Labor and the Religiosity of High-Earning Women and Men." Gender \& Society. Using data from the U.S. General Social Survey, Schnabel suggested reasons for his finding that women and men at the top of the income distribution (earning $\$ 100,000$ per year or more) are more similar when it comes to religious commitment than women and men at the bottom. Moreover, income appears to matter differently for women compared to men: while women tend to be less religious the more money they make, higher-earning men tend to be more religious than lower-earning men. Schnabel suggests that one reason could be the different types of validation that men and women receive in religious congregations. For men, money and social status through work may signal leadership potential. As a result, higher-earning men may be more likely than other men to be offered leadership positions within their religious communities, bolstering their religious participation and commitment. In contrast, high-earning women may receive less validation for flouting gender expectations that many religious groups have for women to be mothers and caregivers.
    ${ }^{46}$ Woodhead, Linda. 2008. "Gendering Secularization Theory." Social Compass. See also Brown, Callum. 2001. "The Death of Christian Britain: Understanding Secularisation 1800-2000."

[^25]:    ${ }^{47}$ Voas, David, Siobhan McAndrew and Ingrid Storm. 2013. "Modernization and the Gender Gap in Religiosity: Evidence from Cross-National European Surveys." Kölner Zeitschrift für Soziologie und Sozialpsychologie.
    ${ }^{48}$ Norris, Pippa, and Ronald Inglehart. 2008. "Existential Security and the Gender Gap in Religious Values." Draft chapter for Social Science Research Council conference on Religion \& International Affairs, New York, Feb. 15-16, 2008.
    ${ }^{49}$ Sullins, D. Paul. 2006. "Gender and Religion: Deconstructing Universality, Constructing Complexity."

[^26]:    ${ }^{50}$ It is also possible that highly religious women choose to focus on home management, while less religious women opt to focus on their career or juggle work and family roles. In that case, religion would influence a person's work status, rather than work status eroding religious commitment. For a discussion of these possible explanations see: De Vaus, David, and lan McAllister. 1987. "Gender Differences in Religion: A Test of the Structural Location Theory." American Sociological Review. Trzebiatowska, Marta, and Steve Bruce. 2012. "Why Are Women More Religious Than Men?" Woodhead, Linda. 2008. "Gendering Secularization Theory." Social Compass. Schnabel, Landon. Forthcoming. "The Gender Pray Gap: Wage Labor and the Religiosity of High-Earning Women and Men." Gender \& Society.

[^27]:    ${ }^{51}$ Questions about employment status were only asked on a few of the surveys used in this report.
    ${ }^{52}$ As measured here, labor force participation includes part-time and full-time employment. In addition, "out of the labor force" includes women who are unemployed and seeking employment, those who are not looking for work, as well as students and retired people.

[^28]:    ${ }^{53}$ Unlike the first analysis, which required survey data on religion and employment status measured at the individual level, which was only available in a subset of countries, this analysis compares gender gaps at the country level and their association with the share of women in the labor force. Because of this difference in the level of analysis, researchers were able to examine a larger number of countries by combining data on religious gender gaps from Pew Research Center surveys with other data from the United Nations on women's labor force participation and other country characteristics. Kosovo and Puerto Rico are excluded from the analysis because of missing U.N. data on women's labor force participation rate. In addition, South Africa is excluded because of missing U.N. data on income (gross national income per capita).
    ${ }^{54}$ National income is measured using gross national income per capita.

[^29]:    ${ }^{55}$ For importance of religion, the negative association between the share of women in the labor force and the size of the gender gap is statistically significant across predominantly Christian countries before and after controlling for national income. However, the difference in association between predominantly Christian and predominantly Muslim countries is not significant. This is largely due to an outlier country, Algeria, which has low levels of female labor force participation and a relatively large gender gap in religion's importance. The pattern for weekly attendance is not statistically significant among or across predominantly Christian countries.

[^30]:    Note: Predominantly Christian countries are those countries where Christians represent at least $60 \%$ of the population. Data on religious gender gaps come from Pew Research Center surveys, 2011-2015. Data on women's labor force participation rates come from the United Nations 2015 Human Development Report.

[^31]:    Note: Non-Christian countries are defined as those where Christians represent less than 60\% of the population. Data on religious gender gaps come from Pew Research Center surveys, 2011-2015. Data on women's labor force participation rates come from the United Nations 2015 Human Development Report.

[^32]:    56 Woodhead, Linda. 2008. "Gendering Secularization Theory." Social Compass. See also Schnabel, Landon. Forthcoming. "The Gender Pray
    Gap: Wage Labor and the Religiosity of High-Earning Women and Men." Gender \& Society.

[^33]:    ${ }^{57}$ An analysis of Pew Research Center's 2014 Religious Landscape Study found that in the United States, gender gaps in religious commitment when measuring weekly attendance, daily prayer and importance of religion are larger among older adults than they are among younger adults. While American women of all ages tend to be more religious than men, this difference is larger among older adults, especially those ages 50 and older. However, researchers did not find a similar age pattern in other countries in a cross-national analysis of the gender gap by age using Pew Research Center's Global Attitudes surveys and global survey of Islam. Although older adults generally are more religious than younger adults in most countries, the gender gap is not consistently wider for the young or the old.
    58 In Pew Research Center's 2014 U.S. Religious Landscape Study, a telephone survey with more than 35,000 respondents, gender identity was measured using respondents' self-reports. In $99 \%$ of cases, interviewers' assessments of respondents' gender identity matched the respondents' self-reports.

[^34]:    59 The Muslim samples in Cameroon, the Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Liberia and Mozambique are disproportionately male (56\% or more). Analysis of the survey reveals that the large share of males among Muslims in these countries makes little substantive difference for the survey findings. Survey samples in Chad and the Democratic Republic of the Congo were disproportionately urban.
    60 Survey respondents in Afghanistan and Niger are disproportionately male, while in Thailand, Azerbaijan and Uzbekistan they are disproportionately female. In each of these countries interviewers faced practical difficulties in reaching additional male or female respondents. In Afghanistan, despite strict gender matching, cultural norms frequently limited the ability of interviewers to contact women in certain areas. In Niger, difficulties associated with recruiting enough female interviewers affected gender matching and may have discouraged the participation of women in the survey. In Azerbaijan and Uzbekistan, large-scale labor migration patterns may have contributed to fewer interviews with male respondents.

[^35]:    61 The 2015 survey of Ukraine does not include populations living in Donetsk and Luhhansk oblasts or Crimea.
    62 These studies include Miller, Alan S., and Stark, Rodney. 2002. "Gender and Religiousness: Can Socialization Explanations be Saved?" American Journal of Sociology. Sullins, D. Paul. 2006. "Gender and Religion: Deconstructing Universality, Constructing Complexity." American Journal of Sociology. Roth, Louise Marie, and Jeffrey C. Kroll. 2007. "Risky Business: Assessing Risk Preference Explanations for Gender Differences in Religiosity" American Sociological Review.

[^36]:    ${ }^{63}$ One important limitation of the Global Attitudes surveys is that Muslim respondents were not asked about attendance at religious services. As we saw in our broader analysis, which drew on additional data sources, Muslims stand out in terms of the gender gap in attendance with men being much more likely to attend religious service than women, especially in Muslim-majority countries such as Afghanistan and Pakistan.

[^37]:    ${ }^{64}$ Kosovo and Puerto Rico were excluded from the analysis because of missing data on women's labor force participation rate. In addition, South Africa is excluded because of missing data on gross national income per capita.

[^38]:    ${ }^{65}$ In Pew Research Center's 2014 U.S. Religious Landscape Study, a telephone survey with more than 35,000 respondents, gender identity was measured using respondents' self-reports. In 99\% of cases, interviewers' assessments of respondents' gender identity matched the respondents' self-reports.
    66 West, Candace, and Don H. Zimmerman. 1987. "Doing Gender." Gender \& Society.

[^39]:    ${ }^{67}$ This calculation assumes a population with an equal number of men and women.
    68 Voas, David, Siobhan McAndrew, and Ingrid Storm. 2013. "Modernization and the gender gap in religiosity: Evidence from cross-national
    European surveys." Kölner Zeitschrift für Soziologie und Sozialpsychologie.

