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# Religion and Education Around the World

Large gaps in education levels persist, but all faiths are making gains – particularly among women

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## Religion and Education Around the World

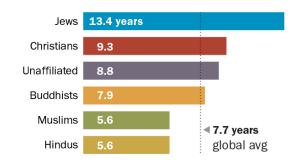
Large gaps in education levels persist, but all faiths are making gains – particularly among women

Jews are more highly educated than any other major religious group around the world, while Muslims and Hindus tend to have the fewest years of formal schooling, according to a Pew Research Center global demographic study that shows wide disparities in average educational levels among religious groups.

These gaps in educational attainment are partly a function of where religious groups are concentrated throughout the world. For instance, the vast majority of the world's Jews live in the United States and Israel – two economically developed countries with high levels of education overall. And low levels of attainment among Hindus reflect the fact that 98% of Hindu adults live in the developing countries of India, Nepal and Bangladesh.

## Jews have the highest number of years of schooling

Average years of formal schooling, by religion



Note: Adults ages 25 years and older as of 2010 (or latest year available).

Source: Pew Research Center analysis. See Methodology for more details.

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But there also are important differences in educational attainment among religious groups living in the same region, and even the same country. In sub-Saharan Africa, <u>for example</u>, Christians generally have higher average levels of education than Muslims. Some social scientists have attributed this gap primarily to historical factors, including missionary activity during colonial times. (For more on theories about religion's impact on educational attainment, see <u>Chapter 7</u>.)

Drawing on census and survey data from 151 countries, the study also finds large gender gaps in educational attainment within some major world religions. For example, Muslim women around the globe have an average of 4.9 years of schooling, compared with 6.4 years among Muslim men. And formal education is especially low among Hindu women, who have 4.2 years of schooling on average, compared with 6.9 years among Hindu men.

# The most highly educated religious groups have the smallest gender gaps in average years of schooling

Average years of formal schooling among religious groups, by gender

	Men	Women	Women trail men by
Jews	13.4	13.4	0 yrs
Christians	9.5	9.1	0.4
Unaffiliated	9.2	8.3	0.8
Buddhists	8.5	7.4	1.1
Muslims	6.4	4.9	1.5
Hindus	6.9	4.2	2.7
Global average	8.3	7.2	1.1

Note: Based on adults ages 25 years and older as of 2010 (or latest year available). Values in difference column are calculated based on unrounded numbers. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

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#### Yet many of these disparities

appear to be decreasing over time, as the religious groups with the lowest average levels of education — Muslims and Hindus — have made the biggest educational gains in recent generations, and as the gender gaps within some religions have diminished, according to Pew Research Center's analysis.

At present, Jewish adults (ages 25 and older) have a global average of 13 years of formal schooling, compared with approximately nine years among Christians, eight years among Buddhists and six years among Muslims and Hindus. Religiously unaffiliated adults – those who describe their religion as atheist, agnostic or "nothing in particular" – have spent an average of nine years in school, a little less than Christian adults worldwide.<sup>1</sup>

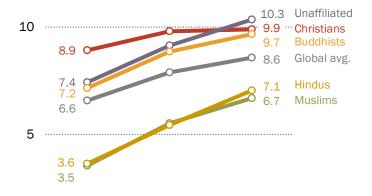
But the number of years of schooling received by the average adult in *all* the religious groups studied has been rising in recent decades, with the greatest overall gains made by the groups that had lagged furthest behind.

For instance, the youngest Hindu adults in the study (those born between 1976 and 1985) have spent an average of 7.1 years in school, nearly double the amount of schooling received by the oldest Hindus in the study (those born between 1936 and 1955). The youngest Muslims have

# Muslims and Hindus have made the largest gains in educational attainment over decades

Average years of formal schooling, by religious group across three generations







Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010.

Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

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made similar gains, receiving approximately three more years of schooling, on average, than their counterparts born a few decades earlier, as have the youngest Buddhists, who acquired 2.5 more years of schooling.

Over the same time frame, by contrast, Christians gained an average of just one more year of schooling, and Jews recorded an average gain of less than half a year of additional schooling.

<sup>&</sup>lt;sup>1</sup> The rationale for estimating educational attainment among adults at least 25 years old is that by age 25, most adults are likely to have reached their highest level of educational attainment.

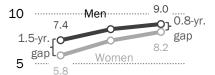
Meanwhile, the youngest generation of religiously unaffiliated adults – sometimes called religious "nones" – in the study has gained so much ground (2.9 more years of schooling than the oldest generation of religious "nones" analyzed) that it has surpassed Christians in average number of years of schooling worldwide (10.3 years among the youngest unaffiliated adults vs. 9.9 years among the youngest Christians).

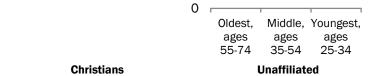
Gender gaps also are narrowing somewhat. In the oldest generation, across all the major religious groups, men received more years of schooling, on average, than women. But the youngest generations of Christian, Buddhist and unaffiliated women have achieved parity with their male counterparts in average years of schooling. And among the youngest Jewish adults, Jewish women have spent nearly one more year in school, on average, than Jewish men.

# Women, across three generations, have gained more years of schooling than men

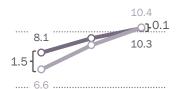
In the youngest generations of Christians, Buddhists and religiously unaffiliated people, women have achieved parity with men in average years of schooling; among Jews, women have surpassed men in terms of educational attainment



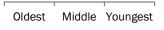




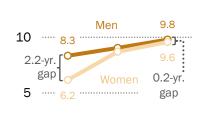






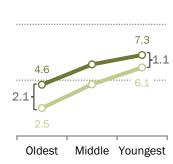


**Hindus** 

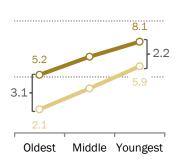


**Buddhists** 

Jews



Muslims



Note: Lines in darker shade represent values for men and those in lighter share represent values for women. The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

Middle Youngest

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Oldest

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0

15 years...

These are among the key findings of Pew Research Center's new demographic study. A prior study by researchers at an Austrian institute, the Wittgenstein Centre for Demography and Human Capital, looked at differences in educational attainment by age and gender. The new study is the first comprehensive examination of differences in educational levels *by religion*. Wittgenstein Centre researchers Michaela Potančoková and Marcin Stonawski collaborated with Pew Research Center researchers to compile and standardize this data.

<sup>&</sup>lt;sup>2</sup> Wittgenstein Centre for Demography and Global Human Capital is a collaboration between the International Institute for Applied Systems Analysis (IIASA), the Vienna Institute of Demography of the Austrian Academy of Sciences, and the Vienna University of Economics and Business (Wirtschaftsuniversität Wien). Wittgenstein Centre educational attainment estimates are published in Lutz, Wolfgang, William P. Butz and Samir KC, eds. 2014. "World Population and Human Capital in the 21st Century."

### Religions vary in educational attainment

# About one-in-five adults globally – but twice as many Muslims and Hindus – have received no schooling at all

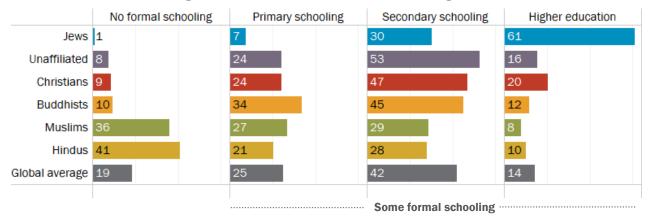
Despite recent gains by young adults, formal schooling is neither universal nor equal around the world. The global norm is barely more than a primary education — an average of about eight years of formal schooling for men and seven years for women.

At the high end of the spectrum, 14% of adults ages 25 and older (including 15% of men and 13% of women) have a university degree or some other kind of higher education, such as advanced vocational training after high school. But an even larger percentage — about one-in-five adults (19%) worldwide, or more than 680 million people — have no formal schooling at all.

Education levels vary a great deal by religion. About four-in-ten Hindus (41%) and more than one-third of Muslims (36%) in the study have no formal schooling. In other religious groups, the shares without any schooling range from 10% of Buddhists to 1% of Jews, while a majority of Jewish adults (61%) have post-secondary degrees.<sup>3</sup>

#### Jews, Christians and religious 'nones' most likely to have higher education

Muslims and Hindus have the largest shares of adherents with no formal schooling



Note: Based on adults ages 25 years and older (or latest year available). Rows may not add to 100% due to rounding. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

<sup>&</sup>lt;sup>3</sup> For details on the educational categories used in this report see "A note about this analysis" on page 20 and Methodology.

#### Hindus and Muslims have made big advances in educational attainment

The study finds the religious groups with the lowest levels of education are also the ones that have made the biggest gains in educational attainment in recent decades.

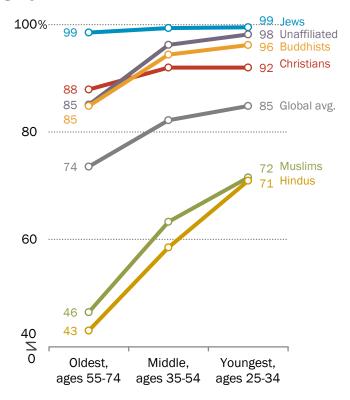
Over three recent generations, the share of Hindus with at least some formal schooling rose by 28 percentage points, from 43% among the oldest Hindus in the study to 71% among the youngest. Muslims, meanwhile, registered a 25-point increase, from 46% among the oldest Muslims to 72% among the youngest.

Christians, Buddhists and religious "nones" have made more modest gains in basic education, but they started from a higher base. Among the oldest generation in the study, large majorities of these three religious groups received at least some formal education; among the youngest Christians, Buddhists and religious "nones," more than nine-inten have received at least some schooling.

The share of Jews with at least some schooling has remained virtually universal across generations at 99%.

# Muslims and Hindus have made the largest gains in shares with at least some schooling

% of each generation with any formal schooling, by religious group



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010.

Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

#### **Declining gender gaps in formal education**

In this study, more women than men have no formal education: As of 2010, an estimated 432 million women (23% of all women ages 25 and older) and 250 million men (14% of all men) lacked any formal education.

In some religious groups, the gender gaps in acquiring any formal education are particularly large. For example, just over half of Hindu women (53%) have received no formal schooling, compared with 29% of Hindu men, a difference of 24 percentage points. Among Muslims worldwide, 43% of women and 30% of men have no formal schooling, a 13-point gap. In other religions, the gender differences in the shares with no formal schooling are smaller, ranging from 9 points among the religiously unaffiliated to just 1 point among Jews.

But Hindus have substantially narrowed the gender gap in primary schooling, as shares of Hindu women with no formal schooling decreased across the three generations studied. Among the oldest Hindus, 72% of women and 41% of men have no formal schooling. But among the youngest Hindus in the study, the gender gap is smaller, as 38% of women and 20% of men have no formal schooling.

Muslims also have reduced the gender gap across generations by 11 percentage points. But in the youngest generation, a 10-point difference remains: 33% of Muslim women and 23% of Muslim men have no formal schooling. Among religiously unaffiliated adults and Buddhists worldwide, meanwhile, the gender gap in the shares with no formal schooling has virtually disappeared.

**Global average** 

19

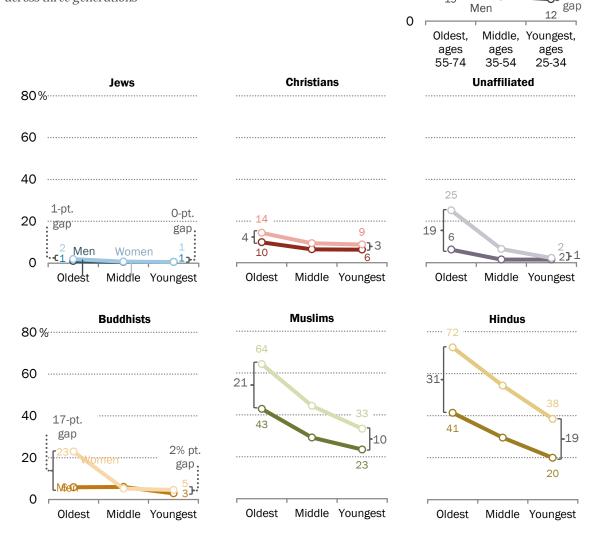
80%.....

40 ····· 15-pt.

20 gap

# Muslims and Hindus have the largest gender gaps in shares with no formal schooling, but the gaps are decreasing

% of men and women with no formal schooling by religious group, across three generations



Notes: Lines in darker shade represent values for men and those in lighter share represent values for women. The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

#### Reversal of some gender gaps in higher education

Worldwide, among all adults in the study, slightly more men than women hold post-secondary degrees (15% vs. 13%). But across generations, women have been outpacing men in reaching higher levels of education. As a result, in the youngest generation, the share of women with post-secondary degrees is comparable to the share of men (17% each).

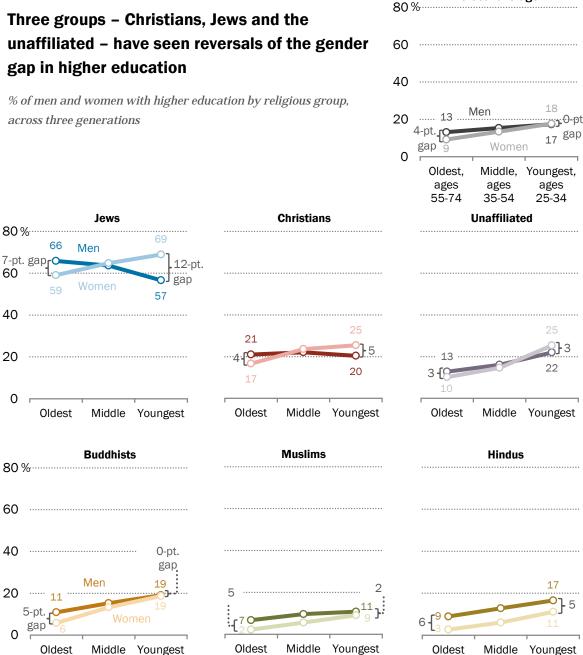
In the youngest generation of three faith groups — Jews, Christians and the religiously unaffiliated — the gender gap in higher education has actually reversed. The biggest reversal has happened among Jews. Among the oldest generation of Jews, more men (66%) than women (59%) hold post-secondary degrees. But among the youngest Jewish adults worldwide, 69% of women and 57% of men have such degrees. In other words, a 7-point gender gap in the oldest generation (with more men than women holding advanced degrees) is now a 12-point gender gap *in the other direction*, with more women than men in the youngest generation of Jews holding degrees. (See <a href="Chapter 6">Chapter 6</a> for details.)

Christians and religiously unaffiliated people have experienced similar — although not as dramatic — reversals of the gender gap in post-secondary education. Among Christians, the gender gap among those in the oldest adult cohort — 21% of men with higher education vs. 17% of women — has flipped among the youngest so that more women than men now hold degrees (25% of women vs. 20% of men). Similarly, among religiously unaffiliated people, the 3-point gender gap in the oldest generation (with more men than women having higher education) is now a 3-point gap in the other direction in the youngest generation, with more women than men earning post-secondary degrees.

Meanwhile, the gender gap in higher education has narrowed for Buddhists (by 5 points) and Muslims (by 3 points). Among the youngest generations in those groups, roughly equal shares of women and men hold higher degrees – 19% each among Buddhists and 11% and 9% among Muslim men and women, respectively. The gender gap in post-secondary education among Hindus has held steady across generations. In the youngest cohort of Hindus, more men than women still have post-secondary degrees (17% of men vs. 11% of women).

**Global average** 

# Three groups - Christians, Jews and the



Notes: Lines in darker shade represent values for men and those in lighter share represent values for women. The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

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#### Both religion and region matter for educational attainment

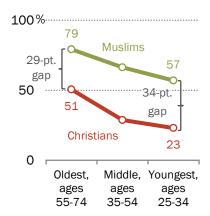
Within the world's major religious groups, there are often large variations in educational attainment depending on the country or region of the world in which adherents live. Muslims in Europe, for example, have more years of schooling, on average, than Muslims in the Middle East. This is because education levels are affected by many factors other than religion, including socioeconomic conditions, government resources and migration policies, the presence or absence of armed conflict and the prevalence of child labor and marriage.

At the same time, this study finds that even under the same regional or national conditions, there often are differences in education attainment among those within religious groups. Here are some findings from this report that illustrate both the diversity *within the same religious group* across different regions of the world, and the diversity *within the same region* among religious groups:

- There is a large and pervasive gap in educational attainment between Muslims and Christians in sub-Saharan Africa. By all attainment measures, Muslim adults in the region both women and men are far less educated than their Christian counterparts. For instance, Muslims are more than twice as likely as Christians in sub-Saharan Africa to have no formal schooling (65% vs. 30%). Moreover, despite growth in the share of adults with any formal schooling in recent decades, the Muslim-Christian attainment gap has widened across generations, largely because Muslims have not kept pace with educational gains made by Christians. (See Chapter 1 for more on the Muslim-Christian gap in sub-Saharan Africa, and Chapter 7 for a discussion of possible explanations.)
- Also in sub-Saharan Africa, the Muslim gender gap in education has remained largely unchanged across generations – and even widened slightly by some measures of attainment analyzed in this study. Although the youngest Muslim women in this region are making educational gains compared with their elders, they are making them at a slightly slower rate than their male

### In sub-Saharan Africa, Muslim-Christian schooling gap has widened across generations

% of Muslims and Christians in sub-Saharan Africa with no formal schooling across three generations



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975, and 1976-1985, respectively, and were ages 55-74, 35-54, and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

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peers. This pattern differs from some other regions, where Muslim women are generally making educational gains at a *faster* pace than Muslim men, thus narrowing the gender gap. (See Chapter 1 for details.)

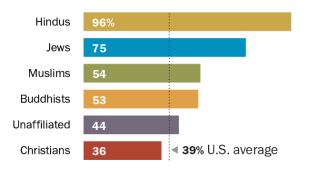
- Christians have remained fairly stable at the global level in their overall educational attainment over three generations. But their attainment varies considerably by region. As the largest of the world's major religious groups (numbering about 2.2 billion overall, including children, as of 2010), Christians also are the most widely dispersed faith group, with hundreds of millions of adherents in sub-Saharan Africa, the Asia-Pacific, Europe, North America and Latin America and the Caribbean. Christians in Europe and North America tend to be much more highly educated than those in sub-Saharan Africa, for instance, although African Christians are making rapid educational gains across generations. (See Chapter 2 for more detail on educational attainment among Christians.)
- Jews also have remained stable in their already high levels of educational attainment over recent generations. But Jews, unlike Christians, are a much smaller and more localized population, with a large majority of all Jews worldwide living in just two countries Israel and the United States where educational attainment is relatively high overall. (Chapter 6 explores data on Jews in more detail.)
- At the global level, religiously unaffiliated adults have 1.3 more years of schooling, on average, than religiously affiliated adults (8.8 versus 7.5). One possible reason for this is that unaffiliated people are disproportionately concentrated in countries with relatively high overall levels of educational attainment, while the religiously affiliated are more dispersed across countries with both high and low levels of attainment. However, the unaffiliated are *not* consistently better educated than their religiously affiliated compatriots when looked at country by country. In the 76 countries with data available on the youngest generation of unaffiliated adults (born 1976-1985), they have a similar number of years of schooling as their religiously affiliated peers in 33 countries; they are *less* educated in 27 countries, and they are *more* highly educated than the affiliated in 16 countries. (See Sidebar in Chapter 3 for more details on the unaffiliated and secularization theory.)
- Hindus in India, who make up a large majority of the country's population (and more than 90% of the world's Hindus), have relatively low levels of educational attainment a nationwide average of 5.5 years of schooling. While they are more highly educated than Muslims in India (14% of the country's population), they lag behind Christians (2.5% of India's population). By contrast, fully 87% of Hindus living in North America hold post-

secondary degrees – a higher share than any other major religious group in the region. (See Chapter 5 on Hindu educational attainment.)

Religious minorities often have more education, on average, than a country's majority religious group, particularly when the minority group is largely foreign born and comes from a distant country. In these cases, immigrants often were explicitly selected under immigration policies that favor highly skilled applicants. In addition, it is often the well-educated who manage to overcome the financial and logistical challenges faced by those who wish to leave their homeland for a new, far-off country. For instance, in the U.S., where Christians make up the majority of the adult population, Hindus and Muslims are much more likely than Christians to have post-secondary degrees. And unlike Christians, large majorities of Hindus and Muslims were

# In United States, religious minorities more likely to have college degrees than Christian majority

% with higher education, by religion



Note: Adults ages 25 years and older as of 2010 (or latest year available).

Source: Pew Research Center analysis.

See Methodology for more details.

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born outside the United States (87% of Hindus and 64% of Muslims compared with 14% of Christians, according to a 2014 Pew Research Center survey). <sup>4</sup>

<sup>&</sup>lt;sup>4</sup> In 61 of the 112 countries (54%) with education data on a religious majority group and at least one religious minority group, at least one religious minority was more likely than the majority group to have post-secondary education by 5 percentage points or more. And in 11 of the 73 countries (15%) with data on a religious majority and at least *two* religious minorities, all religious minority groups were more likely than the majority to have higher education.

#### A note about this analysis

This report looks at average educational levels among adherents of five major world religions – Christianity, Islam, Hinduism, Buddhism and Judaism – as well as among the religiously unaffiliated.

Educational systems vary enormously around the world; this report does not attempt to analyze differences in educational quality, but focuses primarily on educational attainment in terms of *number of years* of schooling. It distinguishes among four broad levels of educational attainment: no formal schooling (less than one year of primary school), primary education (completion of at least one grade of primary school), some secondary education (but no degree beyond high school) and post-secondary education (completion of some kind of college, university or vocational degree beyond high school, also referred to in this report as "higher education"). For comparability across countries, these educational categories are based on the International Standard Classification of Education (ISCED 1997; see Methodology for more details).

To measure changes over recent generations, the report looks at three birth cohorts: the "oldest" (born 1936-1955), "middle" (born 1956-1975) and "youngest" (born 1976-1985). These generations roughly correspond, respectively, to people ages 55 to 74, 35 to 54 and 25 to 34 as of 2010, the most recent year for which detailed census data are available in many countries. Whenever this report refers to "adults," it means people who were 25 or older in 2010 (or, in some cases, the most recent year for which data are available).

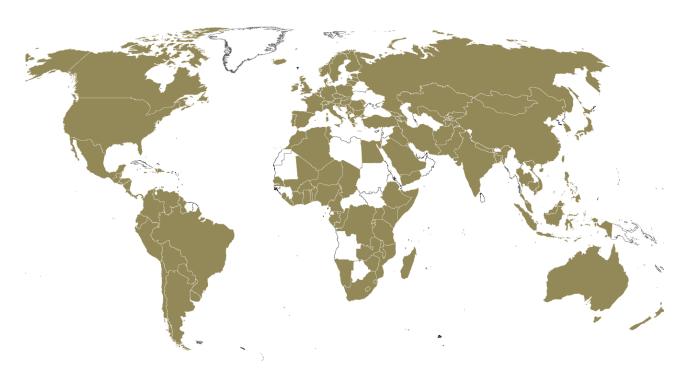
The report presents figures at the global and regional levels but also includes select country-level data as illustrations of larger trends. It includes data from 151 countries, collectively representing 95% of the 3.6 billion people around the world who were 25 or older in 2010. Analyses of change across generations include data from 130 countries with available data on all three birth cohorts, representing 87% of the world's population in 2010 ages 25 to 74.

The approach in this report is primarily descriptive: It lays out the differences in educational levels among religious groups without attempting to explain the reasons for those differences. Chapter 7 outlines some of the ways that social scientists think religion may influence educational attainment.

In this study, the world is <u>divided into six regions</u>. It includes data from 35 countries in the Asia-Pacific region; 36 countries in Europe, including Russia; 30 countries in Latin America and the Caribbean, including Central America and Mexico; 12 countries in the Middle East-North Africa region; Canada and the United States in North America; and 36 countries in sub-Saharan Africa.

### Countries with data on religion and educational attainment

151 countries are included in this study



"Religion and Education Around the World"

### 1. Muslim educational attainment

Among the world's major religious groups, Muslims have made some of the greatest gains in educational achievement in recent decades. The share of Muslim adults (ages 25 and older) with at least some formal schooling has risen by 25 percentage points in the past three generations, from fewer than half (46%) among the oldest group included in the study to seven-in-ten (72%) among the youngest. The Muslim gender gap in educational attainment worldwide also has narrowed.

Nearly four-in-ten (36%) Muslim adults, however, still have no formal schooling at all. That includes 43% of all Muslim women and 30% Muslim men. At the other end of the spectrum, 8% of Muslim adults — including 10% of Muslim men and 6% of Muslim women — have a post-secondary education.

There were a total of 1.6 billion Muslims of all ages in 2010. Educational attainment among the world's more than 670 million Muslim adults varies widely depending on where they live, revealing a picture of high achievement in some countries and regions and a pattern of educational disadvantage in others. Globally, Muslim adults have an average of 5.6 years of schooling. But, regionally, the average ranges from 13.6 years among Muslims in North America (a population projected to increase from 3

# Muslims have 5.6 years of schooling, on average, worldwide

Average years of schooling for Muslims ages 25 and older, by region

Age 25+ Muslim population in 2010 North America 13.6 years 1.8 million 21.6 million **Europe** 9.5 Middle East-North Africa 5.9 107.3 million Asia-Pacific 5.9 462.2 million **Sub-Saharan Africa** 79.7 million Global 672.6 million

Note: Data shown for adults in 106 countries, which constitute 92% of the global population of Muslim adults in 2010. The Latin America-Caribbean region is not shown due to lack of sufficient data on Muslims. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

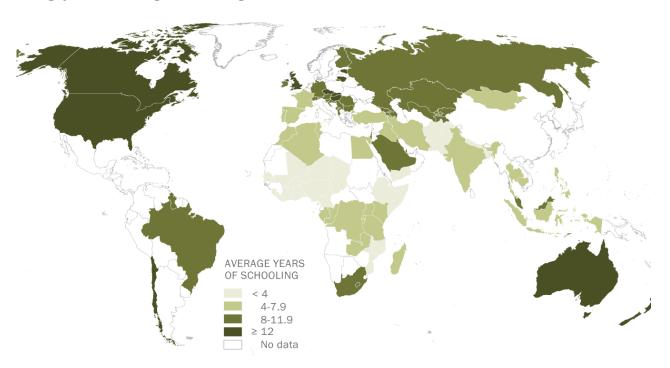
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million to 10 million people by 2050) to just 2.6 years in sub-Saharan Africa (where the number of Muslims of all ages is expected to expand from 248 million in 2010 to 670 million by midcentury).<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Muslim population estimates from Pew Research Center's 2015 report "<u>The Future of World Religions: Population Growth Projections.</u> 2010-2050." One reason that Muslim educational attainment is high in North America is that many Muslims there have immigrated under national policies that favor entry for highly educated adults.

### Muslims have highest levels of schooling where they are a religious minority

Average years of schooling for Muslims ages 25 and older around the world



Highest average years of schooling in countries where Muslims are a				Average years of schooling in countries with		
RELIGIOUS MINORITY RELIGIOUS MAJORITY			LARGEST ADULT MUSLIM POPULATIONS			
1 New Zealand	14.2 years	1 Uzbekistan	11.5 years	Indonesia	7.9 years	115.3 million
2 United States	13.6	2 Kuwait	11.0	India	4.2	76.4 million
3 Canada	13.5	3 Kazakhstan	10.7	Pakistan	3.8	72.4 million
4 Lithuania	13.4	4 Qatar	10.6	Bangladesh	3.9	64.3 million
5 Slovakia	13.4	5 Tajikistan	10.5	Iran	5.4	40.5 million
Median when minority (71 countries)	8.3	Median when majority (35 countries)	6.0	Global median (106 countries)	8.0	672.6 million

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

In sub-Saharan Africa, roughly two-thirds of Muslim adults (65%) have no formal schooling. The same is true for roughly four-in-ten Muslim adults in the Middle East-North Africa region (42%) and three-in-ten in Asia-Pacific region (32%). By comparison, nearly all Muslim adults living in North America and 95% of those in Europe have at least some formal education.

#### Around the world, nearly four-in-ten Muslims have no formal schooling

% of Muslims ages 25 and older with each level of education, by region

		No formal schooling	Primary schooling	Secondary schooling	Higher education
North America	Muslims	1	4	38	57
	Non-Muslims	1	5	54	40
Europe	Muslims	5	16	63	16
	Non-Muslims	2	12	60	25
Asia-Pacific	Muslims	32	30	31	7
	Non-Muslims	19	27	43	11
Middle East-North Africa	Muslims	42	16	29	12
	Non-Muslims	19	11	34	37
Sub-Saharan	Muslims	65	23	9	3
Africa	Non-Muslims	31	35	27	6
Global average	Muslims	36	27	29	8
	Non-Muslims	15	25	45	16

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Rows may not add to 100% due to rounding. The Latin America-Caribbean region is not shown due to lack of sufficient data on Muslims.

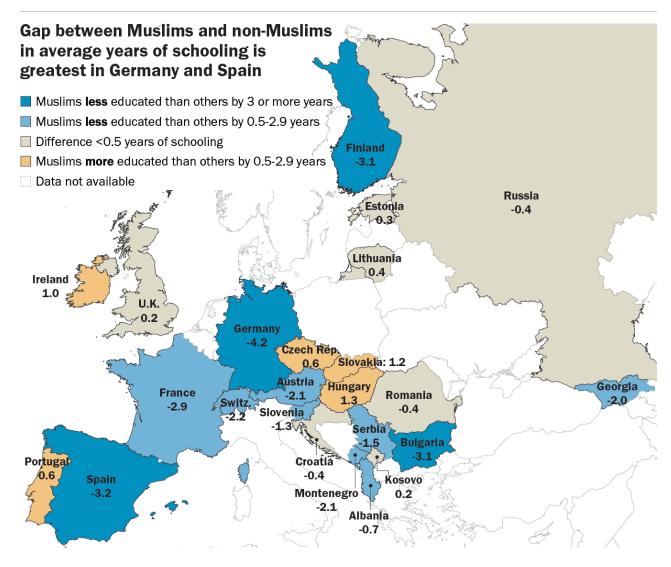
Some formal schooling

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

#### Sidebar: Education levels vary among Muslims in Europe

Muslims in Europe, whose total numbers are projected to increase from 43 million in 2010 to more than 70 million in 2050, display a wide variation in average years of schooling, according to data from 24 European countries.<sup>6</sup>



Note: Adults ages 25 years and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

<sup>&</sup>lt;sup>6</sup> Muslim population estimates from Pew Research Center's 2015 report "The Future of World Religions: Population Growth Projections, 2010-2050."

In some European countries (Lithuania, Slovakia, Estonia, the Czech Republic, Hungary, the United Kingdom and Ireland), Muslims have about 12 years of schooling or more, on average. In others, Muslims tend to have less education, ranging from an average of 10.8 years of schooling in Georgia to a continentwide low of 5.8 years in Spain.

In most of these countries, Muslims have less education than non-Muslims. The biggest gap is in Germany, where Muslims, on average, have 4.2 fewer years of schooling than non-Muslims (9.5 years vs. 13.7 years, respectively). Many of these countries have experienced large inflows of Muslim refugees or guest workers in recent decades. While the data in this report are from 2010, the surge of Muslim refugees to Europe in 2015 and 2016 from countries such as Syria, Iraq and Afghanistan may have increased the number of Muslims with fewer years of schooling than non-Muslims in several European countries.

In countries with relatively high education levels among Muslims, such as the United Kingdom and Ireland, Muslim communities often have been shaped by immigration policies favorable to highly educated migrants. For example, Ireland's economic boom of the late 1990s drew highly skilled Pakistani and African migrants and refugees. Partly as a result of this, Muslims in Ireland have an average of 11.8 years of schooling – one more year, on average, than non-Muslims in that country.

In five of 19 European countries with available data on changes across generations, the Muslim educational disadvantage is larger among the youngest generation, compared with the oldest, partly because educational gains among Muslims have lagged behind those of non-Muslims. This is particularly apparent in Spain and Portugal. While Spain's non-Muslim population gained roughly four years of schooling, on average, across recent generations, Muslims made virtually no overall gain across generations, which widened the gap between Muslims and non-Muslims from roughly one year among the oldest cohort to about a five-year difference among the youngest. Similarly, in Portugal, non-Muslims gained more than six years of formal education across cohorts, but Muslims gained roughly three years.

By contrast, Muslims in Germany have made rapid progress over recent generations. Among the oldest generation of Germans in the study, Muslims lag behind non-Muslims by more than seven years of schooling, on average (5.9 years vs. 13.4 years). But while Germany's non-Muslim population gained about one year of schooling across recent generations, Muslims gained more than six additional years. As a result, the gap between Muslims and non-Muslims in Germany among the youngest generation is only about two years of schooling, on average (12.5 years vs. 14.5 years).

Muslim women around the world lag behind Muslim men in average years of schooling by a year and a half (4.9 years vs. 6.4 years). The gap is particularly large in the Middle East-North Africa region, where Muslim men have an average of 6.9 years of schooling and women have 4.9 years. These Muslim gender gaps are larger than the gaps for non-Muslims: Globally, non-Muslim men average 8.7 years of schooling, compared with 7.7 years for women, and in the Middle East-North Africa region, non-Muslim men have half a year of schooling more than non-Muslim women.

More than four-in-ten (43%) Muslim women worldwide have no formal schooling, compared with 30% of Muslim men. And in attainment of higher education, Muslim men lead women; 10% of Muslim men have post-secondary degrees, compared with 6% of Muslim women.

# Largest Muslim gender gap in average years of schooling is in the Middle East-North Africa region

Average years of formal schooling for Muslim men and women, by region

Middle Feet Newth Africa	Muslims	Men	Women	Women trail men by	Women lead men by
Middle East-North Africa	WIUSIIIIS	6.9 yrs.	4.9 yrs.	2.0 yrs	
	Non-Muslims	10.4	9.9	0.5	
Asia-Pacific	Muslims	6.6	5.1	1.5	
	Non-Muslims	8.0	6.5	1.5	
Sub-Saharan Africa	Muslims	3.3	1.9	1.4	
	Non-Muslims	6.7	4.9	1.8	
Europe	Muslims	9.9	9.2	0.7	
	Non-Muslims	11.2	10.8	0.4	
North America	Muslims	13.7	13.3	0.4	
	Non-Muslims	12.9	12.9		0.0
Global average	Muslims	6.4	4.9	1.5	
	Non-Muslims	8.7	7.7	1.0	

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Values in difference column are calculated based on unrounded numbers. The Latin America-Caribbean region is not shown due to lack of sufficient data on Muslims. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

#### Younger Muslims generally more educated than older Muslims

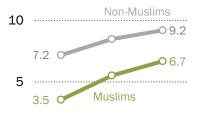
From a generational perspective, Muslims have made substantial gains in educational attainment. Over the three generations in this study, they have gained an average of 3.1 more years of schooling: The youngest Muslims have, on average, 6.7 years of schooling, as compared with the oldest, who have 3.5 years of schooling.

The largest gains in average years of schooling have been in the Middle East and North Africa. In that region, Muslims have gained 4.5 years of schooling across generations, from an average of 3.2 years among the oldest Muslims to 7.6 years among the youngest.

### Muslims gained about three years of schooling, on average, across recent generations

Average years of schooling across three generations

15 years .....

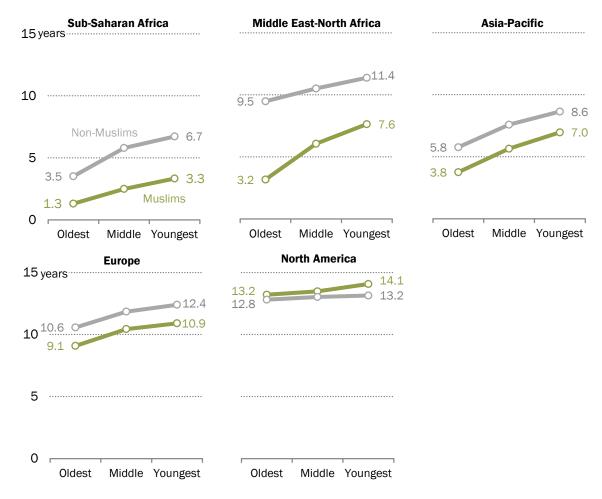




Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

### Muslims in Middle East-North Africa saw largest gains in average years of schooling

Average years of formal schooling for Muslims and non-Muslims across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Latin America-Caribbean region is not shown due to lack of sufficient data on Muslims.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

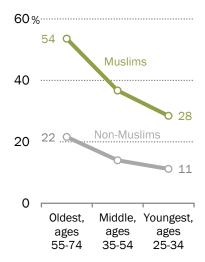
Over the same time period, the share of Muslims with no formal schooling has decreased considerably, from 54% in the oldest generation of Muslims in the study to 28% in the youngest.

Again, the largest decreases in the share of Muslims with no formal schooling were in the Middle East and North Africa, where 67% of the oldest Muslims lack any formal schooling, compared with 26% of the youngest. Nearly all Muslims in North America and Europe have at least some formal schooling. The share of Muslims in sub-Saharan Africa with no formal schooling dropped by 22 percentage points, but a majority of the youngest Muslims in that region (57%) still lack even a primary education.

The share of Muslims with a post-secondary education has grown in recent generations, albeit more modestly, rising from 4% of the oldest Muslims in the study to 10% of the youngest. The largest increases occurred among Muslims in the Middle East-North Africa region (9 points), North America (8 points) and Europe (7 points).

# Share of Muslims with no formal schooling has dropped by nearly half

% with no formal schooling across three generations

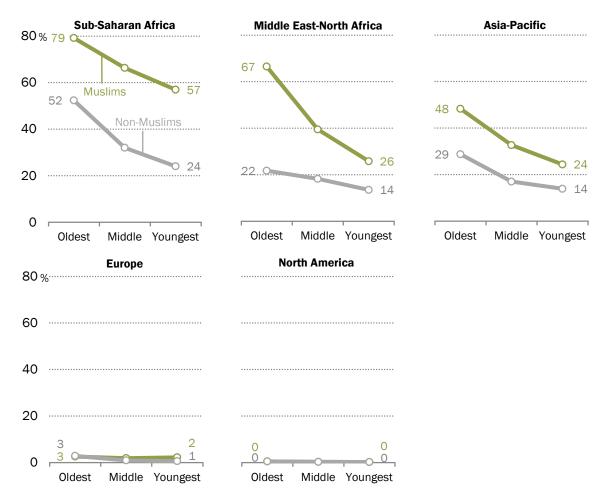


Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

<sup>&</sup>lt;sup>7</sup> Data for North America are from the United States only.

# Large decreases in shares of Muslims with no formal schooling across some regions, but majority of young Muslim adults in sub-Saharan Africa still lack basic education

% with no formal schooling across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Latin America-Caribbean region is not shown due to lack of sufficient data on Muslims.

Source: Pew Research Center analysis. See Methodology for more details.

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### Sidebar: In sub-Saharan Africa, Muslim gender gap in education remains as Muslim-Christian attainment gap has grown

Muslims in sub-Saharan Africa, who make up 30% of the region's population, have the largest share with no formal schooling (65%) among Muslims anywhere in the world.

In addition, the gender gap in education among Muslims in sub-Saharan Africa has remained mostly unchanged across generations, and the share of all Muslims with no formal schooling in the region is higher than the share of Christians with no formal schooling.

The gender gap among Muslims has held steady and even widened slightly on some measures of attainment. For instance, the gap in the share of Muslims with no formal schooling has continued across generations even as more women complete some formal schooling (see chart). Muslim men in the oldest generation in the study average about one more year of schooling than Muslim women, but in the youngest generation of Muslim adults ages 25 and older in sub-Saharan Africa, men average 1.7 more years of schooling than women. The gender gap in higher education also remains across generation, although very few Muslim men or women in the region have college degrees.

This means that although the youngest Muslim women in sub-Saharan Africa are making educational gains, they are not making them at the same rate as their male peers. This pattern differs from other regions of the world, where Muslim women are generally making educational gains at a faster pace than Muslim men. In all other regions except North America, Muslim women have gained more years of education, on average, than Muslim men across the three generations in the study. And in all regions but sub-Saharan Africa, the share of Muslim women with no formal schooling decreased sharply compared with the share of Muslim men with no formal schooling.

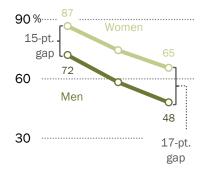
Meanwhile, the educational disparities between Muslims and Christians in sub-Saharan Africa have grown in recent generations, largely because

Muslims have not kept pace with educational gains made by Christians (who make up 63% of the region's population). The oldest Muslims in the region have 2.4 fewer years of schooling, on average, than the oldest Christians. But among the youngest group, that gap has grown to 3.6 years.

In addition, despite growth in the share of Muslims with some formal schooling, the Muslim-Christian gap by that measure also has expanded across generations. Among the oldest generation, 79% of Muslims and 51% of Christians in sub-Saharan Africa have no formal schooling – a 29-percentage-point difference. But among those

### More Muslim women in sub-Saharan Africa have acquired some formal schooling, yet gender gap is mostly unchanged

% of Muslim men and women in sub-Saharan Africa with no formal schooling, across three generations





Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

<sup>&</sup>lt;sup>8</sup> In North America, Muslim men have made greater gains than Muslim women across generations in average years of schooling and higher education.

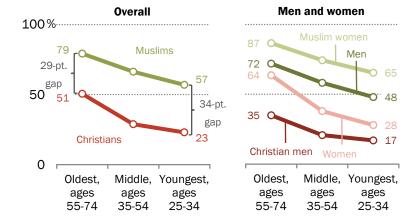
in the youngest generation, the Muslim-Christian gap has grown to 36 points, with 57% of Muslims and 23% of Christians in the region lacking any formal education.

The Muslim gender gap in the share with no formal schooling, which has widened across generations, also presents a contrast to the diminishing Christian gender gap by this measure. While the Muslim gap has *grown* by a few percentage points, the Christian gender gap has *shrunk* by 18 points (see chart).

The Muslim-Christian education gap is seen within many individual countries in the region. In 18 out of 27 sub-Saharan African countries with substantial Muslim and Christian populations, Muslims are more likely than their Christian compatriots to have no formal

# In sub-Saharan Africa, Muslim-Christian schooling gap has widened across generations

% of Muslims and Christians in sub-Saharan Africa with no formal schooling, across three generations and by gender



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

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schooling by at least 10 percentage points (see chart below). In Nigeria, for example, where Christians and Muslims each make up about half of the population, roughly six-in-ten Muslim adults (61%) have no formal schooling, compared with about a quarter of Christian adults (26%).

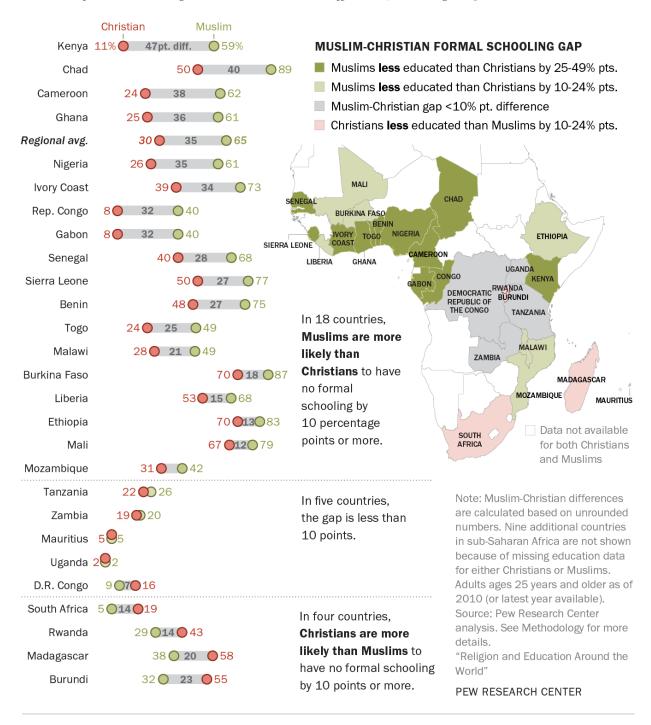
By contrast, in a handful of countries (South Africa, Rwanda, Madagascar and Burundi), Muslims are more likely than Christians to have at least some basic education. In all of these cases, however, Muslims are a small religious minority, making up 3% or less of the national population. For a discussion of the possible reasons behind Muslim-Christian attainment differences in sub-Saharan Africa, see Chapter 7.

<sup>&</sup>quot;Religion and Education Around the World"

<sup>&</sup>lt;sup>9</sup> Nine sub-Saharan African countries have education data on Christians only (Cape Verde, Lesotho, Namibia, Swaziland and Zimbabwe) or Muslims only (Comoros, Gambia, Niger and Somalia).

## Muslims more likely than Christians to have no formal schooling throughout much of sub-Saharan Africa, especially in western Africa

% with no formal schooling and Muslim-Christian difference, adults ages 25 and older



#### Gender differences remain despite substantial gains for women across generations

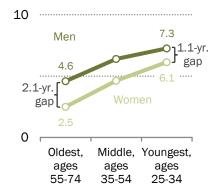
Globally, recent generations have seen a narrowing of the Muslim gender gap in educational attainment as women have made bigger gains than men by most measures of attainment. For example, Muslim women have had a larger increase in average years of schooling than men, going from 2.5 years of education among the oldest Muslim women, to 6.1 years among the youngest, a gain of 3.6 years. By contrast, Muslim men gained 2.7 years of schooling, on average, between the oldest and youngest generations included in this analysis.

In the Asia-Pacific region — home to more Muslims than any other region — the gender gap in average years of schooling for Muslims has narrowed slightly among the youngest generation. Among those born between 1976 and 1985, Muslim men in the Asia-Pacific region have an average of 7.4 years of formal schooling, while Muslim women average 6.5 years. A similar pattern is found among Muslims in the Middle East and North Africa.

# Globally, Muslim gender gap in years of schooling has narrowed

Average years of schooling for Muslim men and women across three generations

15 years .....



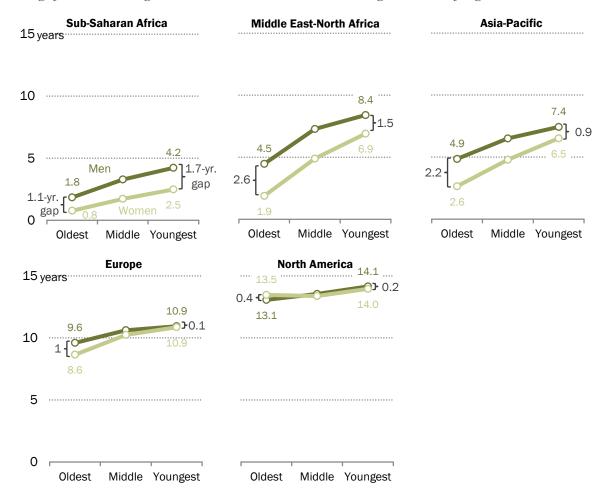
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

### In many regions, Muslim women catching up with Muslim men in years of schooling

Average years of schooling for Muslim men and women across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Latin America-Caribbean region is not shown due to lack of sufficient data on Muslims.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

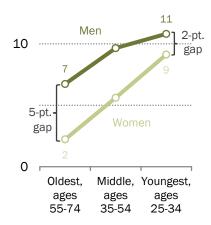
In higher education, the gender gap among Muslims has narrowed by 3 percentage points over generations. Not only that, but in some countries, the gender gap has *reversed* among the youngest Muslims — meaning that young Muslim women are now *more* likely than young Muslim men to have post-secondary degrees.

The gender gap in higher education has flipped in several Muslim-majority countries, including Algeria, Bahrain, Kuwait, Saudi Arabia, Tunisia, the Palestinian territories and Qatar (in the Middle East-North Africa region), as well as Iran, Indonesia and Malaysia (in the Asia-Pacific region). Indeed, in Qatar, the youngest women are more likely than the youngest men to have post-secondary degrees by 17 percentage points.

### Muslim women are closing gender gap in higher education

% of Muslim men and women with post-secondary degrees, across three generations

15%-----



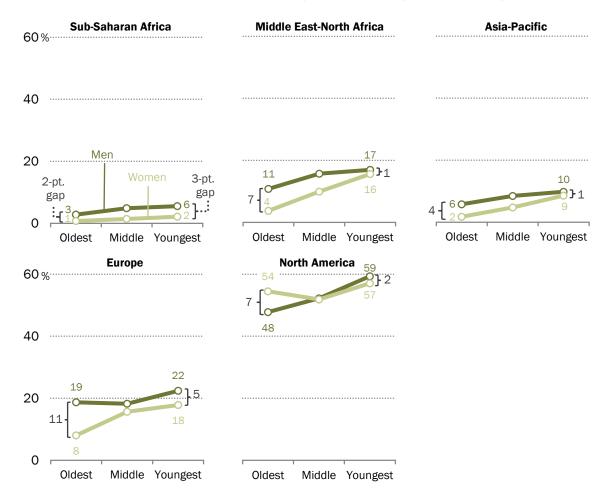
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

### Muslim gender gap in higher education has narrowed in most regions

% of Muslim men and women with post-secondary degrees across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Latin America-Caribbean region is not shown due to lack of sufficient data on Muslims.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

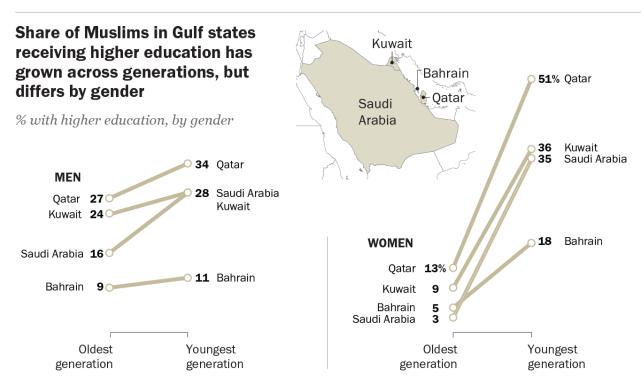
### Sidebar: Youngest Gulf Muslim women surge ahead in higher education

The youngest Muslim women in the Gulf Cooperation Council nations have made such large strides in higher education across recent generations that they now are more likely than men to hold post-secondary degrees, according to data from Bahrain, Kuwait, Saudi Arabia and Qatar.

About one-third of the youngest Gulf women (34%) have higher education, a rise of 30 percentage points from the 4% of women in the oldest generation who have post-secondary degrees. These gains far surpass those made by Muslim women elsewhere in the world, among whom the share with higher education has risen by just 7 points across three generations.

Men's gains in these Gulf states have not been as large. Roughly a quarter of the youngest men (27%) have post-secondary degrees, an 11-point increase over the oldest cohort. Among Muslim men elsewhere in the world, 11% in the youngest generation have higher education, a 4-point increase over the oldest group.

Gains by men in the Gulf states also have not been as consistent across borders as those by women. While the youngest Saudi men are more likely than the oldest Saudi men to have post-secondary degrees (28% vs. 16%, respectively), gains are smaller among the youngest Bahraini men (11%), compared with the oldest group (9%).



Note: The oldest and youngest cohorts were born 1936-1955, and 1976-1985, respectively, and were ages 55-74 and 25-34 as of 2010. Data for Muslims in these four countries reflect only educational attainment for citizens. See Methodology for more details. Source: Pew Research Center analysis.

"Religion and Education Around the World"

### 2. Christian educational attainment

Christians are one of the world's most highly educated religious groups: The vast majority of Christian adults ages 25 and older (91%) have at least some formal schooling, and one-in-five have post-secondary degrees.

Gender differences in educational attainment among Christians have narrowed in recent generations, largely because of gains made by Christian women. Although Christian women are still slightly more likely than Christian men to have no formal schooling, roughly equal shares of

Christian men and women have a post-secondary education. In fact, in the youngest cohort analyzed in the study, Christian women are now somewhat more likely than men to have received higher education. And in some countries, Christian men have experienced declines in post-secondary education across recent generations. For instance, in the United States, the country with the world's largest Christian population, 34% of the youngest Christian men in the study (those born 1976 to 1985) have post-secondary degrees, compared with 37% of the oldest Christian men (born 1936 to 1955).

Christians – who make up the world's largest religious group at 2.2 billion people, including more than a billion adults 25 and older in 2010 – are more geographically dispersed than adherents of other major

### Christians have 9.3 years of schooling, on average, worldwide

Average years of schooling for Christians ages 25 and older, by region



Note: Data shown for adults in 124 countries, which constitute 91% of the global population of Christian adults in 2010. Egypt is the only country in the Middle East-North Africa region with education data for Christians.

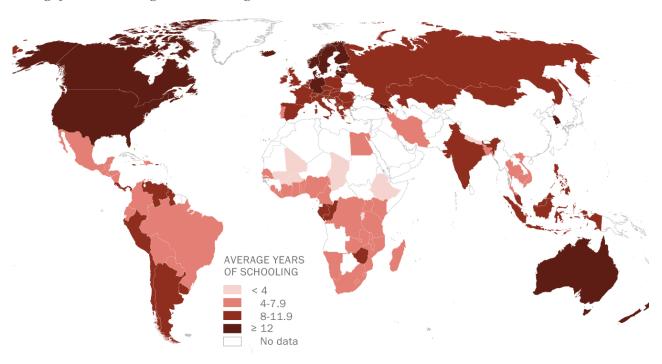
Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

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religions, and they show a wide variation in educational attainment across different regions. Globally, Christians have spent 9.3 years in school, on average. But regionally, this average ranges from 12.7 years in North America (where the Christian population is projected to increase slightly from 267 million in 2010 to 287 million in 2050) to 6.0 years in sub-Saharan Africa (where Christians of all ages are expected to grow rapidly from 517 million in 2010 to 1.1 billion by midcentury).

### Christians have higher levels of schooling, on average, when they are a religious majority

Average years of schooling for Christians ages 25 and older around the world



Highest average years of schooling in countries where Christians are a				Average years of schooling in countries with			
RELIGIOUS MINORITY		RELIGIOUS MAJ	LARGEST ADULT CHRISTIAN POPULATIONS				
1 Estonia	13.1 years	1 Germany	13.6 years	United States	12.7 years	164.4 million	
2 South Korea	12.5	2 New Zealand	13.5	Brazil	6.7	99.4 million	
3 Singapore	12.1	3 Lithuania	13.0	Russia	10.4	74.6 million	
4 Czech Republic	11.9	4 Georgia	12.9	Mexico	6.4	56.8 million	
5 Mongolia	10.6	5 Canada	12.7	Germany	13.6	43.3 million	
Median when minority (27 countries)	7.3	Median when majority (97 countries)	9.2	Global median (124 countries)	8.8	1.1 billion	

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

There also are wide variations across regions in the shares of Christians with higher education. In North America, 38% of Christians have post-secondary degrees, as do almost a quarter in three other regions (Middle East-North Africa, Europe and Asia-Pacific). In sub-Saharan Africa, the share with post-secondary schooling is 6%, while the share of non-Christians in that region with a higher education is 3%.

In North America and Europe, Christians universally (98% or more) have at least some formal schooling, as do nine-in-ten or more Christians in the Latin America-Caribbean and Asia-Pacific regions. In sub-Saharan Africa, however, about three-in-ten Christians (30%) have received no formal education.<sup>10</sup>

### Around the world, majority of Christians have at least secondary schooling

% of Christians ages 25 and older with each level of education, by region

		No formal schooling	Primary schooling	Secondary schooling	Higher education
North America	Christians	1	6	56	38
	Non-Christians	1	3	45	51
Europe	Christians	2	14	61	23
	Non-Christians	2	9	60	29
Asia-Pacific	Christians	6	31	38	24
	Non-Christians	23	27	40	10
Latin	Christians	10	40	37	13
America-Caribbean	Non-Christians	9	33	39	19
Sub-Saharan Africa	Christians	30	36	28	6
	Non-Christians	62	24	11	3
Middle East-North	Christians	44	4	30	23
Africa	Non-Christians	41	16	29	13
Global	Christians	9	24	47	20
	Non-Christians	23	25	40	12

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Rows may not add to 100% due to rounding. Egypt is the only country in the Middle East-North Africa region with education data on Christians.

Some formal schooling

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

<sup>&</sup>lt;sup>10</sup> The share of Christians with no formal schooling is even higher in the Middle East-North Africa region (44%) than it is in sub-Saharan Africa, but data for the Middle East-North Africa region include Christians only in Egypt, the sole country in that region with available data on Christians.

The gender gap in educational attainment among Christians is relatively modest. While Christian men around the world have 9.5 years of schooling, on average, Christian women have received 9.1 years. Similar shares of both Christian men and women have at least some formal schooling (90% of Christian women and 93% of Christian men) and post-secondary degrees (20% of Christian women and 21% of Christian men).

These gender gaps are wider, however, in certain parts of the world. In sub-Saharan Africa, for example, Christian women have 1.8 fewer years of schooling, on average, than Christian men. But in North America and Latin America, there is virtually no gender gap in educational attainment for Christians.

### No gender gap in education for Christians in North America

Average years of formal schooling for Christian men and women, by region

		Men	Women	Women trail	men by	Women lead men by
Middle East-North Africa	Christians	8.2 yrs.	6.3 yrs.	2.0 yrs		
	Non-Christians	7.0	5.1	1.9		
Sub-Saharan Africa	Christians	7.0	5.1	1.8	*************************	***************************************
	Non-Christians	3.6	2.1	1.5		
Europe	Christians	11.0	10.6		0.4	
	Non-Christians	11.6	11.4		0.2	
Asia-Pacific	Christians	9.6	9.2		0.4	
	Non-Christians	7.6	6.0	1.6		
Latin America-Caribbean	Christians	7.3	7.3		0.1	
	Non-Christians	8.1	8.5			0.4
North America	Christians	12.7	12.7			0.0
	Non-Christians	13.3	13.5			0.2
Global average	Christians	9.5	9.1	•••••	0.4	
	Non-Christians	7.7	6.2	1.5		

Note: Based on adults ages 25 years and older as of 2010 (or latest year available). Values in difference column are calculated based on unrounded numbers. Egypt is the only country in the Middle East-North Africa region with education data on Christians. Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

### **Small gains in education across generations**

Christians have made relatively modest gains in overall levels of education across the three generations studied, and most of these gains appear to have occurred between the oldest generation in the study (born 1936 to 1955) and the middle generation (born 1956 to 1975). There have been no substantial gains between this middle generation and the youngest group of Christians in the study (born 1976 to 1985).

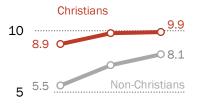
For example, after an increase of almost a full year of schooling between the oldest and middle age cohorts (from an average of 8.9 years of schooling to 9.8 years), Christians in the youngest cohort have not made similar gains, averaging 9.9 years of schooling. Additionally, the share of Christians with at least some formal schooling is comparable for the middle and youngest cohorts (92% and 93%, respectively). And the share of Christians with post-secondary degrees has held steady at 23% between these two generations.

One reason for this global pattern in Christians' educational attainment is the geographic shift in the Christian population. Historically, Europe and North America have been home to a majority of the world's Christians; as of 2010, some 59% of those in the oldest generation of Christians live in these two regions. But only 36% of the youngest Christians live in these two regions. Indeed, Christians outside Europe and North America are projected to account for increasingly larger shares of the global Christian population. And because educational

## Christian gains in educational attainment slow

Average years of schooling across three generations

15 years





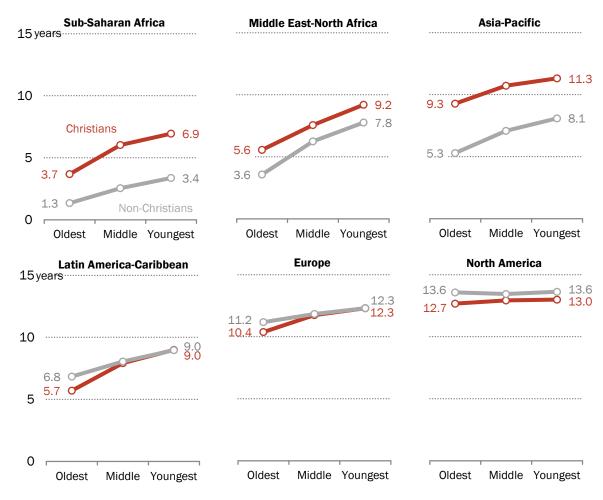
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

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attainment in other regions is lower than that of Christians in Europe and North America, the global average for all Christians is tugged downward. According to analysis of available data, if the regional distribution of Christians hypothetically had stayed the same across generations, the global average of years of schooling for Christians would have been one full year higher.

### Christians gained more than three years of schooling, on average, in three regions

Average years of formal schooling for Christians and non-Christians across three generations, by region



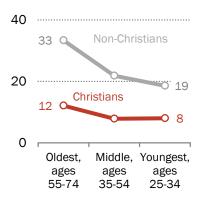
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Egypt is the only country in the Middle East-North Africa region with data available on Christians. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

Globally, the share of Christians with no formal schooling has declined by 4 percentage points across generations, from 12% in the oldest generation to 8% in the youngest. Christians in sub-Saharan Africa and the Middle East and North Africa, however, saw much larger decreases in the same time period: a 28-point decline and a 27-point drop, respectively.<sup>11</sup>

# Share of Christians with no schooling has dropped modestly

% of Christians and non-Christians with no formal schooling across three generations



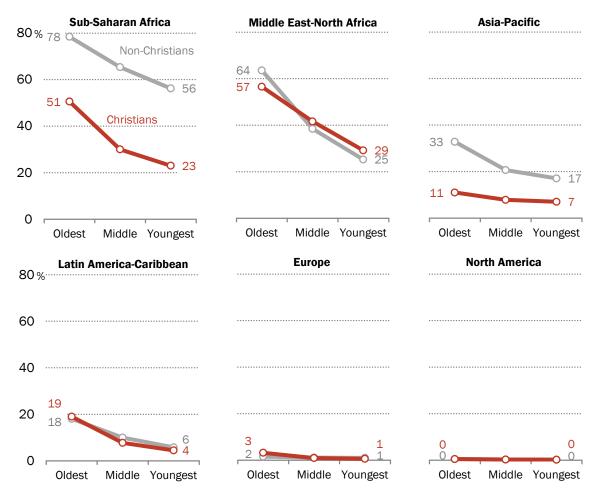


Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

<sup>&</sup>lt;sup>11</sup> Egypt is the only country in the Middle East and North Africa with education data on Christians; the country is home to 4.1 million Christians (32% of the region's Christian population).

### Large decline in share of Christians with no formal schooling in sub-Saharan Africa

% of Christians and non-Christians with no formal schooling across generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Egypt is the only country in the Middle East-North Africa region with data available on Christians. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Source: Pew Research Center analysis. See Methodology for more details.

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### Sidebar: Christian educational diversity in sub-Saharan Africa

Christians in sub-Saharan Africa are <u>projected to increase</u> from 24% of the global Christian population in 2010 to 38% by 2050. Overall, 30% have no formal education, which is one of the highest shares of Christians with no schooling in any region in the world. At the other end of the spectrum, about a third (35%) have at least some secondary schooling. 13

But there is considerable diversity in Christian educational attainment throughout the region. In Nigeria, for example, three-quarters (74%) of the Christian population – the largest in Africa – has some formal education and 46% have at least secondary schooling. Christians in Kenya are even more educated. Almost nine-in-ten (89%) have some formal schooling and 55% have secondary schooling or more. Next door to Kenya in Ethiopia, however, Christians are much less educated. Fewer than one-third (30%) have any formal schooling, and relatively few Ethiopian Christians (8%) have secondary schooling.

There also are substantial gender gaps in education among Christians in sub-Saharan Africa, especially relative to Christians in other regions of the world. Some two-thirds of Christian women in the region (64%) have any formal schooling, compared with 78% of Christian men. And the largest gender gap in average years of schooling among Christians in any region is in sub-Saharan Africa, where women have an average of 5.1 years of education and men average 7.0 years. 14

But Christian women in sub-Saharan Africa are making bigger strides than men across generations, especially when it comes to gaining some basic schooling. The share of Christian women in the region with at least some formal education increased by 36 percentage points (36% to 72%) between the oldest and youngest generations in the study, while the comparable increase for Christian men was 18 percentage points (65% to 83%).

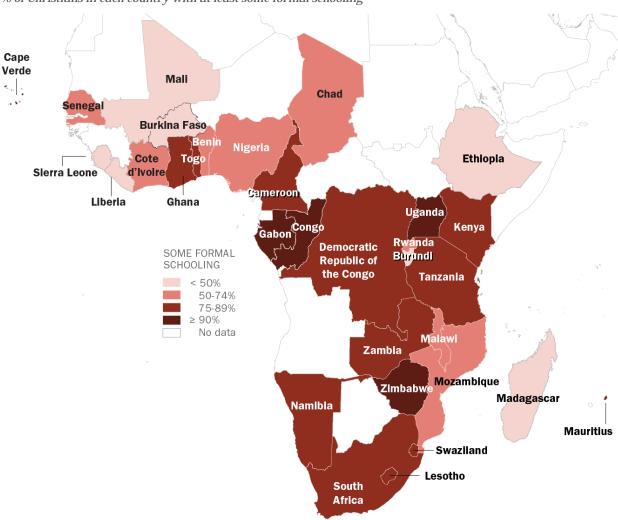
<sup>&</sup>lt;sup>12</sup> The percentage of Christians in the Middle East-North Africa region with no formal schooling is higher, but the only data available for Christians in the region are for Egypt.

<sup>&</sup>lt;sup>13</sup> This analysis focuses on secondary education and above, rather than post-secondary education by itself, because relatively low numbers of students in sub-Saharan Africa go on to higher education.

<sup>&</sup>lt;sup>14</sup> Again, Christians in the Middle East-North Africa region have a larger gender gap, but only data available for Christians in the region are for Egypt.

### **Educational attainment for Christians is not uniform across sub-Saharan Africa**

% of Christians in each country with at least some formal schooling



Note: Based on adults ages 25 years and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

### Christian women's gains across generations have narrowed, and sometimes reversed, gender gaps in education

Across the three generations in the study, Christian women have made greater gains than

Christian men in many indicators of educational attainment. These gains have nearly erased the global gender gap among Christians, and, in some regions and countries, led to a gender gap reversal — in the youngest generation, women have more education, on average, than men.

For instance, in average years of schooling, Christian women worldwide rose from 8.6 years of schooling to 9.8 years between the oldest and youngest cohorts, while men gained less than a year of schooling across generations (9.4 years to 10.0 years).

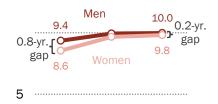
In four regions of the world, the youngest Christian women have at least as many years of schooling, on average, as the youngest Christian men. In North America, Christian women born between 1976 and 1985 have an average of 13.2 years of schooling, compared with 12.8 years for their male peers. In Europe, the youngest Christian women average 12.6 years of schooling, compared with 12.0 for Christian men. And in the Asia-Pacific and Latin America-Caribbean regions, the youngest Christian men and women average virtually the same number of years of schooling.

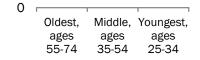
Larger gains among women also help explain a slight narrowing of the global Christian gender gap in some basic schooling. The share of the youngest Christian women with at least some formal schooling rose to 91%, compared with 94% among the youngest Christian men. In three regions — North America, Europe and Latin America and the Caribbean — the gender gap by this measure has disappeared among the youngest generation of Christians.

# Christian gender gap in average years of schooling has narrowed

Average years of schooling for Christian men and women across three generations







Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

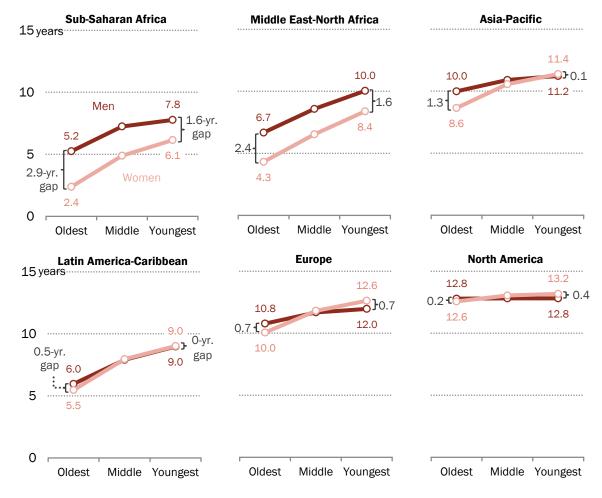
Source: Pew Research Center analysis. See Methodology for more details.

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<sup>&</sup>lt;sup>15</sup> Data for North America are from United States only.

### Christian gender gap in education has narrowed in sub-Saharan Africa, reversed in Europe

Average years of schooling for Christian men and women across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. Egypt is the only country in the Middle East-North Africa region with data available on Christians. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

The gender gap reversal for Christians is especially apparent when it comes to higher education. Worldwide, the youngest Christian women are 5 percentage points more likely than the youngest Christian men to have post-secondary degrees.

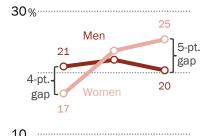
The reversal is due not only to women's gains but also to generational stagnation in the share of Christian men with post-secondary degrees. About one-in-five of the oldest Christian men around the world have post-secondary degrees (21%), as do 20% of the youngest Christian men. At the same time, the share of Christian women with higher education has risen from 17% among the oldest generation to 25% among the youngest.

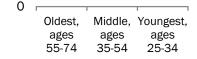
Stagnation in higher education attainment among Christian men is especially notable in the United States, where the share with post-secondary degrees has decreased slightly from 37% in the oldest generation to 34% in the youngest. This change, combined with women's gains, means that in the youngest generation of U.S. Christians, women are more likely than men – by 10 percentage points – to have a post-secondary education.

Christian men are not alone in seeing a decline in the share with higher education: The same pattern is also seen in the youngest generation of Jewish men. Moreover, for Jews and the religiously unaffiliated, the global gender gap in higher education also has reversed, so that the youngest Jewish and unaffiliated women are more likely than the youngest Jewish and unaffiliated men to have higher education.

### Christian gender gap in higher education has reversed

% of Christian men and women with post-secondary degrees, across three generations





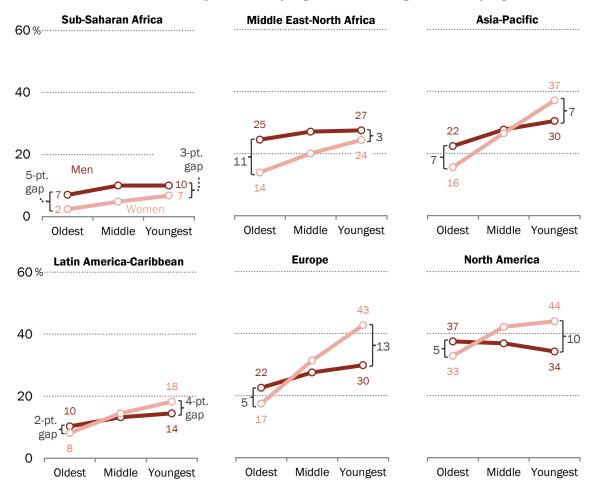
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

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### Youngest Christian women more likely than men to have post-secondary degrees in four of six regions

% of Christian men and women with post-secondary degrees across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. Egypt is the only country in the Middle East-North Africa region with data available on Christians. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada.

Source: Pew Research Center analysis. See Methodology for more details.

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### Sidebar: Europe's gender reversal in higher education

Christians are at the forefront of a global trend that also is occurring among Jews and unaffiliated people: the reversal of the historical gender gap in higher education. In the youngest generations of these three religious groups, women are more likely than men to have post-secondary degrees. For Christians, this is particularly apparent in Europe.

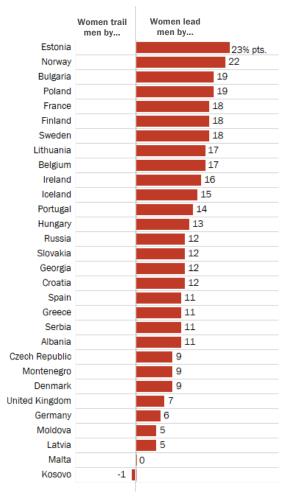
Across the continent, 43% of the youngest Christian women have post-secondary degrees, a 25-percentage-point increase from the 17% with higher education in the oldest generation of Christian women. By contrast, the share of Christian men with higher education grew by 7 percentage points, from 22% in the oldest generation to 30% in the youngest. As a result, the youngest Christian women are more likely than the youngest Christian men – by 13 percentage points – to have higher education.

By comparison, 36% of the youngest non-Christian women have post-secondary degrees, a 10-point gain over the 26% with higher education among the oldest non-Christian women (mostly religiously unaffiliated people and Muslims). The youngest non-Christian women also are more likely than the youngest non-Christian men to have higher education, but only by 3 points.

The largest reversals in the European Christian gender gap in higher education have occurred in Norway, France, Germany, Montenegro, Belgium and Iceland. Among the oldest cohorts in Norway, France and Belgium, Christian women are *less* likely than Christian men to have a post-secondary education by 4 percentage points or more, but in the youngest cohort, they are *more* likely by at least 15 points to have such

### Women lead men in higher education among Europe's youngest Christians

Difference between Christian women and men in Europe, born 1976-1985, in share with higher education



Note: Gaps are calculated based on unrounded numbers. Source: Pew Research Center analysis. See Methodology for more details.

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a degree. And in Montenegro, Christian women in the oldest cohort are *behind* men by 13 percentage points by this measure, but the youngest are *ahead* by 9 points. Kosovo is the only European country with available data where the youngest Christian women still lag slightly behind men in the share with higher education. Besides Europe, the youngest Christian women also are more likely than the youngest Christian men to have post-secondary degrees in North America, Asia and the Latin America-Caribbean region.

### 3. Educational attainment among the religiously unaffiliated

People without a religious affiliation — including atheists, agnostics and those who describe their religion as "nothing in particular" — are among the most educated of the world's major religious groups. Globally, the vast majority (92%) of unaffiliated adults ages 25 and older have at least some basic education, nearly seven-in-ten (68%) have at least some secondary schooling and 16% have post-secondary degrees.

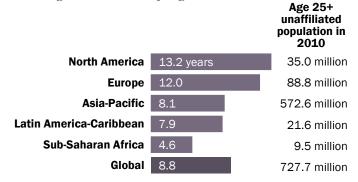
In nearly all regions of the world, with the exception of sub-Saharan Africa, the youngest

generation of unaffiliated men are less likely than the youngest women to have post-secondary degrees. <sup>16</sup> This is especially notable in North America, where 38% of the youngest unaffiliated men and 56% of the youngest unaffiliated women have higher education, compared with 45% of men and 48% of women in the oldest generation. <sup>17</sup>

While religiously unaffiliated people, sometimes called religious "nones," are grouped together for analytical purposes in this report, in some cases, there are important differences *within* this group (see <u>sidebar</u> on page 58).

### Religiously unaffiliated adults have 8.8 years of schooling, on average, worldwide

Average years of schooling for religiously unaffiliated adults ages 25 and older, by region



Note: Data shown are for adults in 103 countries, which constitute 97% of the global population of religiously unaffiliated adults in 2010. The Middle East-North Africa region is not shown due to lack of sufficient data on religiously unaffiliated people.

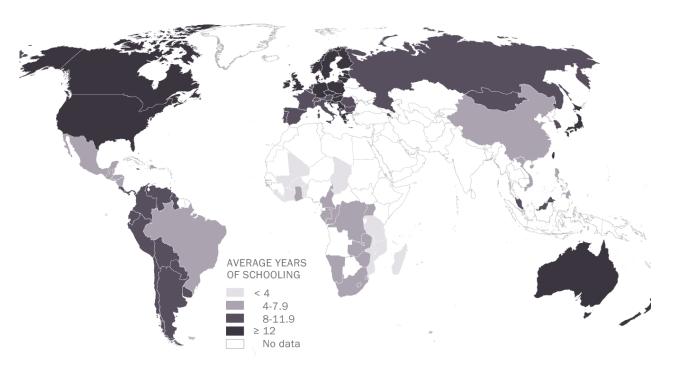
Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

<sup>16</sup> In sub-Saharan Africa, 2% of the youngest unaffiliated men and 1% of the youngest unaffiliated women have higher education.

<sup>&</sup>lt;sup>17</sup> Data on generational change in North America come from the United States only.

### Religious 'nones' highly educated in Europe, North America, parts of Asia-Pacific

Average years of schooling for religiously unaffiliated adults ages 25 and older around the world



Highest average years of schooling in countries where unaffiliated are a				Average years of schooling in countries with			
RELIGIOUS MINO	LARGEST ADULT UNAFFILIATED POPULATIONS						
1 Germany	14.0 years	1 Estonia	13.0 years	China	7.5 years	450.8 million	
2 New Zealand	14.0	2 Japan	12.5	Japan	12.5	52.6 million	
3 Lithuania	14.0	3 Czech Republic	12.3	Vietnam	7.0	43.8 million	
4 Montenegro	13.9	4 Hong Kong	11.3	United States	13.2	30.3 million	
5 Serbia	13.9	5 China	7.5	Russia	10.7	16.6 million	
Median when minority (98 countries)	9.2	Median when majority (5 countries)	12.3	Global median (103 countries)	9.4	727.7 million	

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

Educational attainment among the world's more than 725 million religious "nones," who are <u>projected to decline</u> as a share of the global population in the coming decades, varies from region to region. Around the world, "nones" have 8.8 years of schooling, on average. But that average ranges from a high of 13.2 years in North America to a low of 4.6 years in sub-Saharan Africa.<sup>18</sup>

The Asia-Pacific region is home to a majority (76%) of the world's unaffiliated population — about 858.5 million people — and most of them (700.7 million) live in China. Just under two-thirds of all unaffiliated adults ages 25 and older in this region (64%) have at least a secondary education, but in the youngest generation in this study, that figure jumps to 89%.

### More than half of religious 'nones' have at least secondary schooling

% of religiously unaffiliated adults ages 25 and older with each level of education, by region

		No formal schooling	Primary schooling	Secondary schooling	Higher education
North America	Unaffiliated	0	3	50	46
	Affiliated	1	6	54	40
Europe	Unaffiliated	1	8	59	32
	Affiliated	2	14	61	23
Asia-Pacific	Unaffiliated	9	27	53	11
	Affiliated	27	27	36	10
Asia-Pacific w/o China	Unaffiliated	4	31	41	24
	Affiliated	31	27	31	11
China	Unaffiliated	10	26	56	8
	Affiliated	10	30	53	7
Latin America-Caribbean	Unaffiliated	11	34	39	16
	Affiliated	10	39	37	13
Sub-Saharan Africa	Unaffiliated	40	35	23	2
	Affiliated	41	32	22	5
Global	Unaffiliated	8	24	53	16
	Affiliated	21	26	39	14

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Rows may not add to 100% due to rounding. The Middle East-North Africa region is not shown due to lack of sufficient data on religiously unaffiliated people.

Source: Pew Research Center analysis. See Methodology for more details.

Some formal schooling

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most of the region's countries.

<sup>18</sup> The Middle East-North Africa region is not discussed in this chapter because reliable data on the unaffiliated population are available in

### Sidebar: Does more education lead to less religion?

Some scholars have hypothesized that as education levels increase, many people will shed religious identity and turn to science or other nonreligious sources for answers to life's most important questions. <sup>19</sup> If this secularization theory is accurate, one might expect that countries with higher levels of education would have larger shares of people who do not identify with a religion, and that, on average, religiously unaffiliated people (sometimes called religious "nones") would have higher levels of education than those who identify with a religion.

This study provides mixed evidence; there is some global data that seems to support secularization theory, but at the country level, the pattern is murky.

At the global level, religiously unaffiliated adults are more highly educated than affiliated adults (as measured by average years of schooling). On average, religiously unaffiliated adults have 1.3 more years of schooling than religiously affiliated adults (8.8 years vs. 7.5 years).

Why do religious "nones" have an educational advantage when viewed at the global level? One reason is that they are disproportionately concentrated in countries with relatively high overall levels of educational attainment. Large shares of the global unaffiliated population reside in highly educated countries such as Japan, South Korea, the United States and the nations of Western Europe. By contrast, relatively few religiously unaffiliated adults live in sub-Saharan Africa, which is the region with the lowest overall level of educational attainment. The global population of religiously affiliated adults shows a different pattern: It is more spread out across countries that have all levels of educational attainment.

Individual countries with high educational attainment also tend to have relatively large shares of religiously unaffiliated adults compared with countries with lower attainment. There are countries that break this pattern, however, and have relatively small shares of unaffiliated adults despite high educational attainment (for example, Georgia and Israel). And China is also a clear outlier: Although educational attainment is relatively modest (7.4 years of schooling, on average), more than half of Chinese adults do not identify with a religious group.

Indeed, when affiliated and unaffiliated adults are compared *within* countries, religious "nones" do not consistently have an educational advantage, especially among those in the youngest generation. <sup>20</sup> There are 76 countries in this study with data on the youngest generation (born 1976 to 1985) of religiously unaffiliated adults. In 33 of those countries, religious "nones" in this generation have a similar number of years of schooling as their religiously affiliated peers (a difference of less than half a year of schooling). In 27 countries, the unaffiliated are *l*ess educated than the affiliated by at least half a year of schooling. And in 16 countries, the youngest "nones" are more highly educated than their religiously affiliated compatriots by at least half a year.

In countries where the religiously unaffiliated make up a large share of the population – that is, 20% or more – differences in educational attainment between the youngest cohorts of unaffiliated and affiliated people are often small. For instance, there is a difference of less than half a year of schooling between the two groups in the

<sup>&</sup>lt;sup>19</sup> Evidence for a link between educational attainment and disaffiliation from religion is mixed. For instance, in one study of a recent cohort of young adults in the United States, Baylor University sociologist Jeremy Uecker and colleagues in 2007 found that young adults who did *not* attend college were actually more likely to drop their religious affiliation than those who attended college.

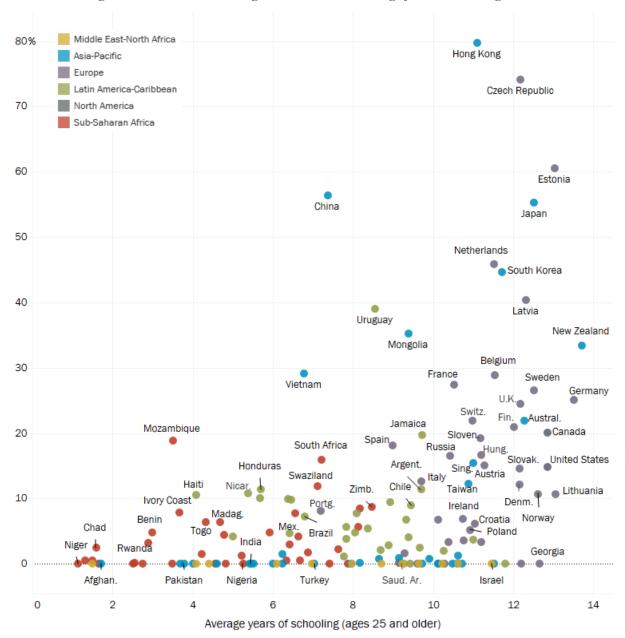
<sup>&</sup>lt;sup>20</sup> The youngest generation of religiously affiliated and unaffiliated adults is the focus of this analysis to help account for age differences between groups. The unaffiliated tend to be younger than the affiliated and younger adults, regardless of religious affiliation, tend to have more education than older adults.

United States, the United Kingdom, Germany, France, Australia, New Zealand, China, South Korea, Japan and the Czech Republic.

In some countries, there are important educational differences *within* unaffiliated populations. Although data on the educational attainment of self-described atheists, who make up one category of religious "nones" (along with agnostics and people who describe their religion as "nothing in particular"), was not available for most countries in this report, analysis of survey data collected by Pew Research Center finds that atheists in the United States and France are significantly more likely than adults who say their religion is "nothing in particular" to have post-secondary degrees. But in Germany, Spain, United Kingdom, Australia, Uruguay and China, differences in post-secondary attainment between atheists and adults with no particular religion are not statistically significant.

### Countries with high levels of educational attainment tend to have larger shares of religiously unaffiliated adults than countries with low attainment

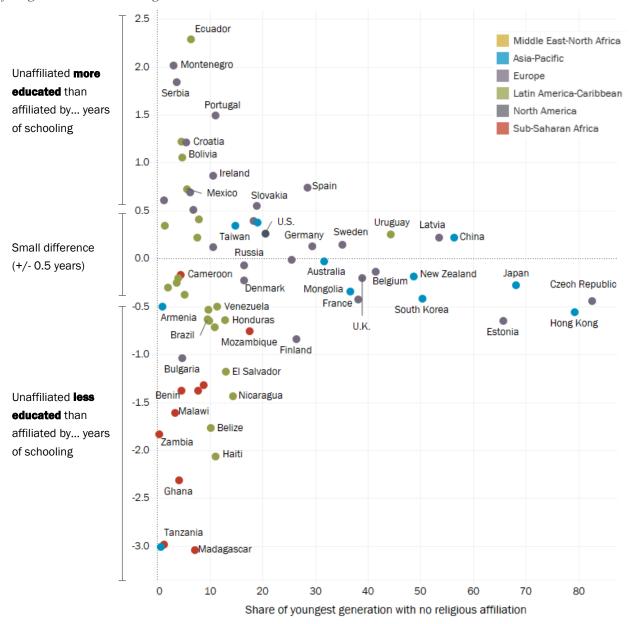
Share of adults ages 25 and older with no religious affiliation vs. average years of schooling for all adults



Note: Based on adults ages 25 and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

### Educational differences between religiously unaffiliated and affiliated young adults are small in countries with large unaffiliated populations

Difference in average years of schooling between unaffiliated and affiliated young adults (born 1976-1985) vs. share of youngest cohort with no religious affiliation



Note: Based on adults born 1976-1985 who were ages 25-34 in 2010. Source: Pew Research Center analysis. See Methodology for more details. "Educational Differences by Religion Around the World"

Gender differences in educational attainment among the unaffiliated are modest at the global level, except in terms of basic schooling: Women are more likely than men to have no formal schooling (13% vs. 4%). When it comes to average years of schooling, however, unaffiliated women lag behind unaffiliated men by less than one year (8.3 years vs. 9.2 years), and they are about as likely as men to have post-secondary degrees (15% vs. 16%). In the youngest generation, unaffiliated women are *more* likely than unaffiliated men to have higher education (25% vs. 22%) – a pattern seen in all regions except sub-Saharan Africa.

By other measures of educational attainment as well, there are little to no gender differences in most regions. In Europe, unaffiliated men and women both average 12.0 years of schooling, and in North America, women and men have a similar number of years of schooling (13.4 years vs. 13.1 years). In Latin America, 54% of unaffiliated men and 57% of unaffiliated women have at least some secondary education. There is less gender equality in sub-Saharan Africa, where more unaffiliated men (27%) than women (17%) have at least some secondary education.

### Educational gender gap for unaffiliated is somewhat smaller than for religiously affiliated adults

Average years of formal schooling for religiously unaffiliated men and women, by region

		Men	Women	Women trail men by	
Sub-Saharan Africa	Unaffiliated	5.5 yrs	3.4 yrs	2.1 yrs	
	Affiliated	5.8	4.1	1.7	
Asia-Pacific	Unaffiliated	8.6	7.5	1.1	
	Affiliated	7.4	5.8	1.6	
Asia-Pacific w/o China	Unaffiliated	10.9	9.9	1.0	
	Affiliated	7.2	5.5	1.8	
China	Unaffiliated	8.0	6.8	1.2	
	Affiliated	7.8	6.7	1.1	
Europe	Unaffiliated	12.0	12.0	0	0.0
	Affiliated	11.0	10.5	0.4	
atin America-Caribbean	Unaffiliated	7.8	8.0		
	Affiliated	7.4	7.3	0	0.0
North America	Unaffiliated	13.1	13.4	••••••	• • • • • • • •
	Affiliated	12.8	12.8	0	0.0
Global average	Unaffiliated	9.2	8.3	0.8	
	Affiliated	8.1	7.0	1.1	

Note: Based on adults ages 25 years and older as of 2010 (or latest year available). Values in difference column are calculated based on unrounded numbers. The Middle East-North Africa region is not shown due to lack of sufficient data on religiously unaffiliated people. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

### Generational changes among the unaffiliated vary, with greatest gains in Asia-Pacific

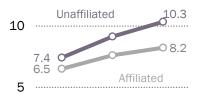
The youngest generation of unaffiliated adults have more years of education, on average, than the oldest generation. Worldwide, they have gained 2.9 more years of schooling, on average, between the oldest generation (born 1936 to 1955), which has an average of 7.4 years of schooling, and the youngest (born 1976 to 1985), which has 10.3 years, on average.

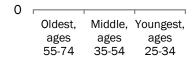
These global increases have been driven mainly by gains in the Asia-Pacific region, which saw the largest growth in average years of schooling among the unaffiliated of any region — a gain of 3.4 years, on average, across the three generations studied.

# Youngest religious 'nones' have three more years of schooling than oldest

Average years of schooling across three generations

15 years .....

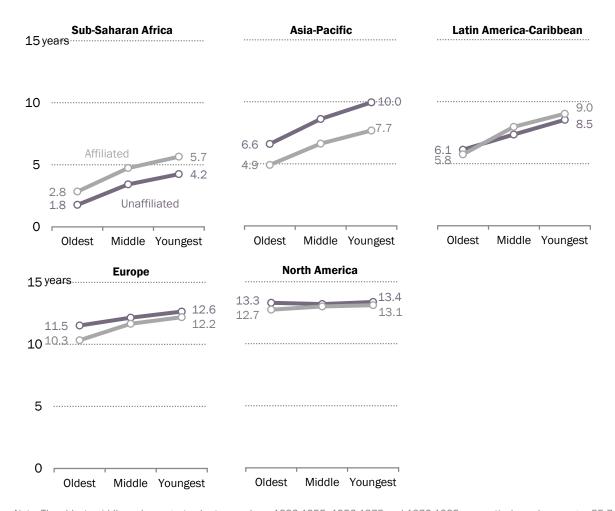




Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

### Largest gains in average years of schooling for unaffiliated are in Asia-Pacific

Average years of formal schooling for unaffiliated and affiliated adults across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Middle East-North Africa region is not shown due to lack of sufficient data on religiously unaffiliated people. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

Globally, the share of religious "nones" with no formal schooling has shrunk from 15% in the oldest generation to 2% in the youngest. In other words, nearly all (98%) religious "nones" in the youngest cohort have at least some formal schooling.

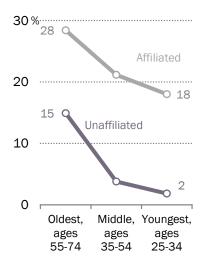
Unaffiliated adults in sub-Saharan Africa saw the largest decline (26 points) in the share with no formal schooling across generations, from 67% in the oldest to 41% in the youngest. There also are notable generational differences in Latin America and the Caribbean and the Asia-Pacific region (16 points in both regions).

Religiously unaffiliated adults worldwide also have seen increases in higher education, as the share with post-secondary degrees doubled from 12% in the oldest cohort to 24% in the youngest.

The largest increase has been in the Asia-Pacific region, where the share with higher education rose by 13 points — to 20% — across generations. Still, the youngest generation of unaffiliated adults in the Asia-Pacific region are only about half as likely as their peers in Europe and North America to have post-secondary degrees (20% in Asia-Pacific compared with 39% in Europe and 45% in North America).

### Religious 'nones' saw larger drop in share with no formal schooling than affiliated

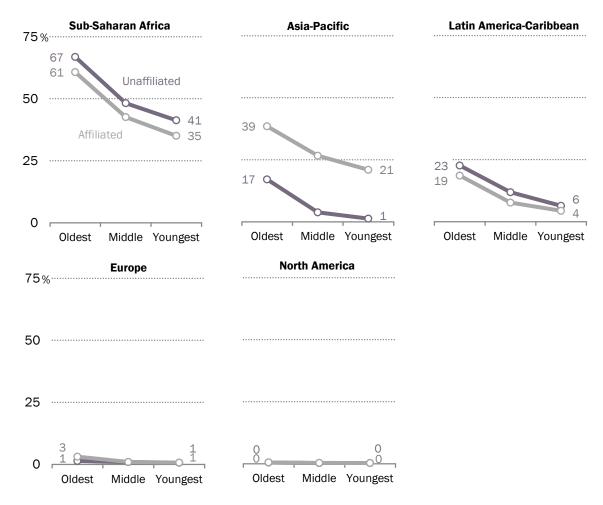
% of religiously unaffiliated and affiliated adults with no formal schooling across three generations



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

### Virtually all of youngest 'nones' in Asia have at least some formal schooling

% of unaffiliated and affiliated adults with no formal schooling across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Middle East-North Africa region is not shown due to lack of sufficient data on religiously unaffiliated people. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

### Sidebar: Educational change in China and the rest of Asia and the Pacific

China's 700.7 million religious "nones" make up the largest unaffiliated population in the world – and 82% of the Asia-Pacific region's unaffiliated population.

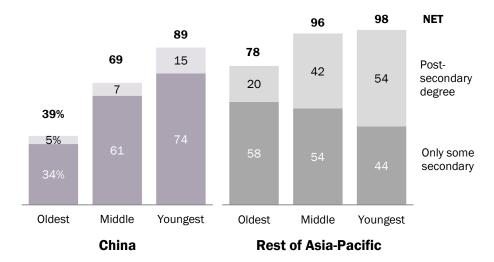
Because of this, China's patterns of educational attainment have an overwhelming impact on the data when

measuring attainment levels across the region. But the educational patterns among religious "nones" in China are very different from those in other countries in the Asia-Pacific region, so it is illuminating to look at them separately. Most notably, while China's unaffiliated have made big gains in secondary schooling, the rest of Asia-Pacific's religious "nones" have made gains in higher education.

### Most unaffiliated Chinese adults (56%) have some secondary schooling (but no higher education), compared with 41% of the

### China's unaffiliated make gains in secondary schooling, but rest of region surges ahead in higher education

% of religiously unaffiliated adults ages 25 and older in China and the rest of the Asia-Pacific region with secondary education or post-secondary degrees



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010.

Source: Pew Research Center analysis. See Methodology for more details.

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unaffiliated in other parts of the Asia-Pacific region. However, when it comes to higher education, China's "nones" are three times less likely to have post-secondary degrees than are religious "nones" elsewhere in the region (8% vs. 24%).<sup>21</sup>

A majority of adults in the youngest generation of "nones" in the Asia-Pacific region (outside of China) have post-secondary degrees (54%). In fact, five of the seven countries and territories where the unaffiliated made the greatest gains in higher education in recent generations are in Asia: Singapore, South Korea, Japan, Hong Kong and Taiwan.<sup>22</sup> For example, people in the youngest generation of religious "nones" in South Korea are roughly five times more likely than those in the oldest generation to have a post-secondary education (54% vs. 10%).

<sup>&</sup>lt;sup>21</sup> Among China's youngest religious "nones" 74% have some secondary school and 15% have higher education. Among Asia-Pacific's youngest "religious nones" *outside* China, 54% have higher education.

<sup>&</sup>lt;sup>22</sup> The two other countries are Poland and Ecuador.

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Some of these gains can be tied directly to the rapidly increasing educational attainment of unaffiliated women. For example, in Japan, the share of unaffiliated women with higher education rose from 16% in the oldest generation to 59% in the youngest, a 43-point increase. (The share of unaffiliated Japanese men with post-secondary degrees rose from 27% to 53%, a 26-point rise.) And in South Korea, the share of unaffiliated women with higher education rose 53 percentage points (from 4% to 57%).

As a result of the strong gains made by unaffiliated women, the gender gap in higher education among the unaffiliated has reversed in Japan, South Korea, Mongolia and Hong Kong, so that women in the youngest generation are more likely than their male counterparts to have post-secondary degrees.

In Singapore, unaffiliated women saw the largest gain in higher education across generations – 61 points, from 26% in the oldest generation to 86% in the youngest generation. This dramatic increase in higher education among women substantially narrowed the gender gap in the youngest generation (88% of men vs. 86% of women have post-secondary degrees).

### Gender differences shrink across generations as unaffiliated women advance

Across the three generations in this study, unaffiliated women have made more rapid gains than unaffiliated men at all levels of educational attainment. As a result, unaffiliated women in the youngest generation have closed the gap with men in average years of schooling and are more likely than men to have higher education.

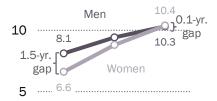
For example, unaffiliated women have gained 3.8 more years of schooling, on average, between the oldest and youngest generations. The oldest unaffiliated women have an average of 6.6 years of schooling, while the youngest have an average of 10.4 years. At the same time, unaffiliated men gained 2.2 more years of schooling – from 8.1 years of schooling for the oldest to 10.3 for the youngest.

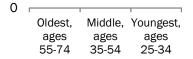
Unaffiliated women in the Asia-Pacific region made the largest gains in average years of schooling -4.3 years - of any region. (Unaffiliated men in Asia-Pacific gained 2.6 years.)

### Gender gap among unaffiliated in average years of schooling has closed

Average years of schooling for unaffiliated men and women across three generations







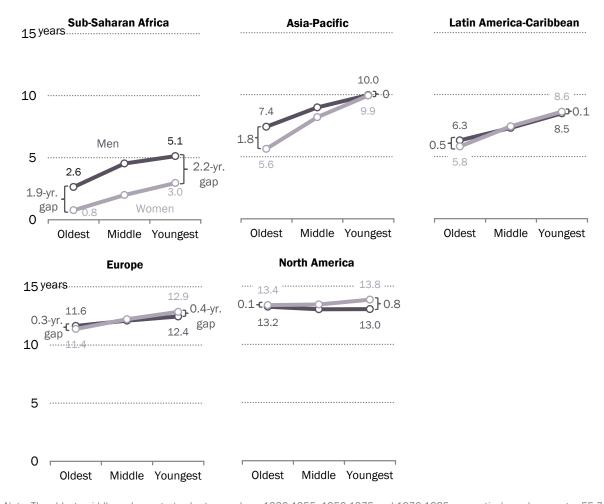
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

### In most regions, youngest unaffiliated women are equal to – or ahead of – youngest unaffiliated men in average years of schooling

Average years of schooling for unaffiliated men and women across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Middle East-North Africa region is not shown due to lack of sufficient data on religiously unaffiliated people.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

When it comes to higher education, unaffiliated women have made gains at a faster rate than men, increasing the share of those with post-secondary degrees from 10% in the study's oldest generation to 25% in the youngest generation. At the same time, the share of unaffiliated men with post-secondary degrees went from 13% to 22%.

As a result, the unaffiliated gender gap in higher education has reversed in four regions of the

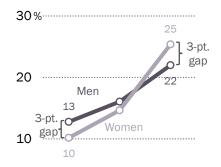
world, as women in the youngest generation have become more likely than the youngest men to have post-secondary degrees. This is not the case in sub-Saharan Africa, where very few men and women have higher education.<sup>23</sup>

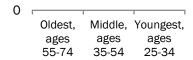
In the United States, the only country in North America with available data on the youngest religious "nones," unaffiliated women have become far more likely than their male counterparts to have higher education; a majority of unaffiliated women in the youngest generation in the study (56%) have post-secondary degrees, compared with 38% of their male counterparts.

The U.S. is among the countries where the share of unaffiliated men with college degrees has *declined* across generations. Nearly half (45%) of the oldest unaffiliated men in the U.S. have post-secondary degrees, compared with 38% of the youngest. A similar trend is seen in Germany.<sup>24</sup>

# Unaffiliated gender gap in higher education has reversed across generations

% of unaffiliated men and women with post-secondary degrees, across three generations





Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

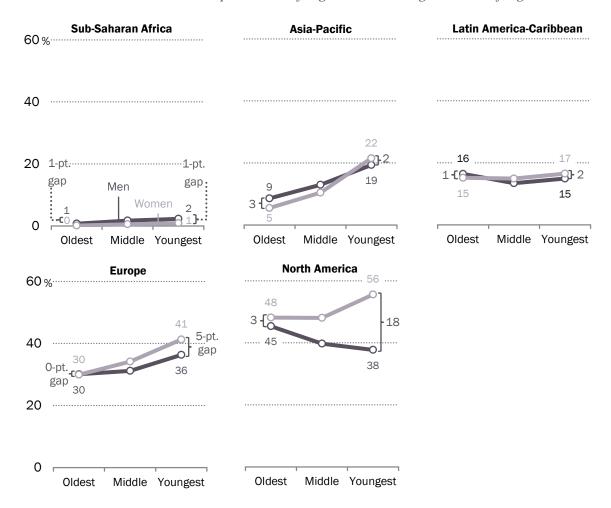
"Religion and Education Around the World"

<sup>&</sup>lt;sup>23</sup> In the Middle East-North Africa region, the unaffiliated population is too small to make estimates.

<sup>&</sup>lt;sup>24</sup> In Germany, 43% of the oldest unaffiliated men and 37% of the youngest have post-secondary degrees. A similar pattern is seen in five other European countries.

## In most regions, youngest unaffiliated women are more likely to have higher education than youngest men

% of unaffiliated men and women with post-secondary degrees across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. The Middle East-North Africa region is not shown due to lack of sufficient data on religiously unaffiliated people.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

#### 4. Buddhist educational attainment

Buddhists are roughly on par with global averages in their levels of educational attainment. They have 7.9 years of schooling, on average, compared with the global average of 7.7 years for all groups, and 12% have earned post-secondary degrees, compared with 14% of all adults globally. An above-average share of Buddhist adults ages 25 and older (90%) have received at least some basic schooling, compared with a

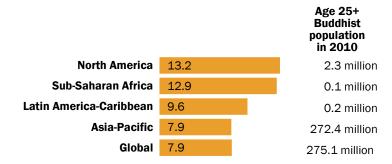
global average of 81% for all groups.

Buddhist women have made notably strong educational gains in recent generations, helping to close the gender gap in primary schooling as well as higher education. Among the youngest generation of Buddhists, men and women have nearly identical educational profiles across all measures of attainment.

The overwhelming majority of the world's 488 million Buddhists of all ages live in the Asia-Pacific region (99%), and 50% of all Buddhists live in China.<sup>25</sup> But even within this region, Buddhists display considerable diversity in their educational attainment. In Japan and Singapore, a third or more of Buddhist adults have higher

## Buddhists have 7.9 years of schooling, on average, worldwide

Average years of schooling for Buddhists ages 25 and older, by region



Note: Data shown for adults in 29 countries, which make up 89% of the global population of Buddhist adults in 2010. Europe and the Middle East-North Africa region are not shown due to lack of sufficient data on Buddhists in these regions. South Africa is the only country with education data on Buddhists in sub-Saharan Africa and constitutes 57% of the region's Buddhist adult population. Brazil and Mexico are the only countries with data on Buddhists in Latin America and together constitute 60% of the region's Buddhist adult population.

Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

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education. But in Thailand, India and China, Buddhist educational attainment is much lower, with roughly one-in-ten or fewer Buddhist adults holding post-secondary degrees. (For more on the varying educational attainment of Buddhists in Asia-Pacific, see <u>sidebar</u> on page 85.)

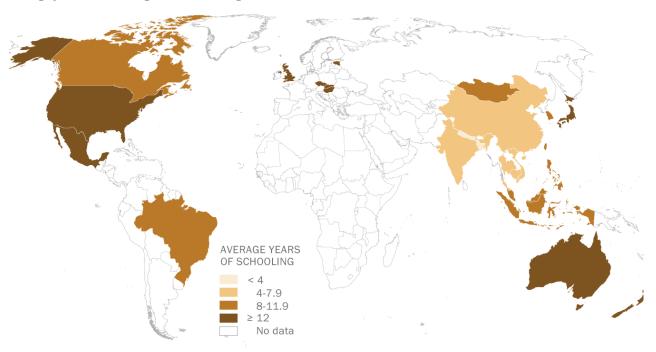
In countries outside the Asia-Pacific region, where Buddhists are a religious minority, they often are more highly educated than the non-Buddhist population of those countries. In the United States, for example, Buddhists have an average of 13.4 years of schooling and more than half

<sup>&</sup>lt;sup>25</sup> Buddhist population estimates are from Pew Research Center's 2015 report "The Future of World Religions: Population Growth Projections, 2010-2050."

(53%) have post-secondary degrees, compared with an average of 12.9 years of schooling and 39% with higher education among non-Buddhists. And in the United Kingdom, Buddhists are more likely than the rest of the population to have higher education by 20 percentage points (52% vs. 32%).

#### **Buddhists are highly educated in countries outside of Asia-Pacific region**

Average years of schooling for Buddhists ages 25 and older around the world



Highest average year RELIGIOUS MIN	Average years of LARGEST ADUL	J				
1 Mexico	14.7 years	1 Mongolia	9.4 years	China	7.1 years	155 million
2 Estonia	14.5	2 Thailand	6.3	Thailand	6.3	42 million
3 New Zealand	13.8	3 Cambodia	6.0	Japan	12.5	37 million
4 Slovakia	13.8			South Korea	10.9	9 million
5 United Kingdom	13.7			Vietnam	5.8	6 million
Median when minority (26 countries)	11.1	Median when majority (3 countries)	6.3	Global median (29 countries)	10.8	275 million

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Data are unavailable for Buddhists in the Buddhist-majority countries of Burma (Myanmar), Bhutan, Sri Lanka and Laos.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

About 10% of Buddhist adults worldwide have no formal education. This includes 11% of Buddhists in China, but only 1% of those living in North America.

When it comes to higher education, there is even greater regional variation among Buddhists. In the Asia-Pacific region, 11% of adult Buddhists have post-secondary degrees. Elsewhere, higher education is more common, with 30% of Buddhists in Latin America and the Caribbean and 52% in North America holding post-secondary degrees.

#### Globally, nine-in-ten Buddhists have at least some formal schooling

% of Buddhists ages 25 and older with each level of education, by region

		No formal schooling	Primary schooling	Secondary schooling	Higher education
North America	Buddhists	1	10	37	52
	Non-Buddhists	1	5	54	40
Sub-Saharan Africa	Buddhists	2	3	60	35
	Non-Buddhists	41	32	22	5
Latin America-Caribbean	Buddhists	7	20	43	30
	Non-Buddhists	10	39	37	13
Asia-Pacific	Buddhists	10	34	45	11
	Non-Buddhists	24	26	40	10
Asia-Pacific w/o China	Buddhists	8	39	35	18
	Non-Buddhists	31	26	31	12
China	Buddhists	11	30	52	6
	Non-Buddhists	10	27	55	8
Global	Buddhists	10	34	45	12
	Non-Buddhists	19	24	42	15

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Rows may not add to 100% due to rounding. Europe and the Middle East-North Africa region are not shown due to lack of sufficient data on Buddhists in these regions. South Africa is the only country with data on Buddhists in sub-Saharan Africa and constitutes 57% of the region's Buddhist adult population. Brazil and Mexico are the only countries with data on Buddhists in Latin America and together constitute 60% of the region's Buddhist adult population.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

Buddhist men around the world have, on average, about one more year of schooling than women (8.5 years vs. 7.4 years). This is in line with the global gender gap for non-Buddhists (8.3 years vs. 7.2 years). Buddhist women are twice as likely as Buddhist men to have no formal education (13% vs. 6%), but women lag behind men in higher education by a smaller margin (10% vs. 13%). The educational gender gap among Buddhists is somewhat smaller in the Americas than it is in Asia.

#### On average, Buddhist men have one more year of schooling than Buddhist women

Average years of formal schooling for Buddhist men and women, by region

		Men	Women	Women trail me	n by
Asia-Pacific	Buddhists	8.5 yrs	7.4 yrs	1.1 yrs.	
	Non-Buddhists	7.6	6.0	1.6	
Asia-Pacific w/o China	Buddhists	9.3	8.4	0.9	9
	Non-Buddhists	7.4	5.6	1.8	
China	Buddhists	7.8	6.6	1.2	
	Non-Buddhists	8.0	6.8	1.2	
Sub-Saharan Africa	Buddhists	13.4	12.4	1.0	
	Non-Buddhists	5.7	4.1	1.7	
Latin America-Caribbean	Buddhists	10.0	9.4		0.6
	Non-Buddhists	7.4	7.3		0.0
North America	Buddhists	13.5	12.9		0.5
	Non-Buddhists	12.9	12.9		
Global average	Buddhists	8.5	7.4	1.1	
	Non-Buddhists	8.3	7.2	1.1	

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Values in difference column are calculated based on unrounded numbers. Europe and the Middle East-North Africa region are not shown due to lack of sufficient data on Buddhists in these regions. South Africa is the only country with data on Buddhists in sub-Saharan Africa and constitutes 57% of the region's Buddhist adult population. Brazil and Mexico are the only countries with data on Buddhists in Latin America and together constitute 60% of the region's Buddhist adult population.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

## Young Buddhists are more highly educated than older generations

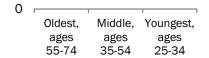
Buddhists have made gains in educational attainment across the three generations in this study. Globally, they have gained an average of 2.5 more years of schooling, with the youngest Buddhists (born 1976 to 1985) averaging 9.7 years of schooling, compared with 7.2 years among the oldest Buddhists (born 1936 to 1955). Buddhists in Latin American and the Caribbean made even larger gains (3.3 more years of schooling) across generations. In North America, Buddhist attainment increased by 1.4 years, from 13.0 years of schooling, on average, among the oldest, to 14.4 years among the youngest. <sup>26</sup>

#### Young Buddhists have two and a half more years of schooling, on average, than oldest generation

Average years of schooling across three generations





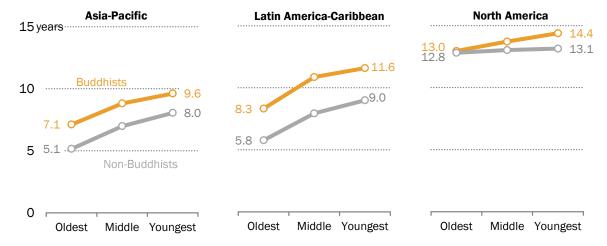


Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

<sup>&</sup>lt;sup>26</sup> Data for North America are from United States only.

#### Latin American Buddhists made largest gains in average years of schooling

Average years of formal schooling for Buddhist and non-Buddhist adults across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Europe, the Middle East-North Africa region and sub-Saharan Africa are not shown due to lack of sufficient generational data on Buddhists in these regions. Brazil and Mexico are the only countries with data on Buddhists in Latin America and together constitute 60% of the region's Buddhist adult population.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

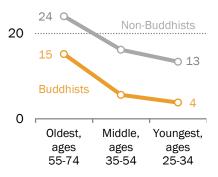
The share of Buddhists with no formal schooling decreased by 11 percentage points, from 15% in the oldest generation to 4% in the youngest. The largest decrease was in the Asia-Pacific region (11 points). In North America, virtually all Buddhists in each of the three generations analyzed have at least some basic schooling.

Compared with the oldest generation, more than twice as many Buddhists in the youngest generation hold post-secondary degrees (19% vs. 8%). The gains have been especially large in North America, where the share of Buddhists with post-secondary degrees has increased by 25 percentage points across the three generations, from 44% of the oldest Buddhists to 69% of the youngest.

#### Share of Buddhists with no schooling dropped by 11 points across generations

% with no formal schooling across three generations

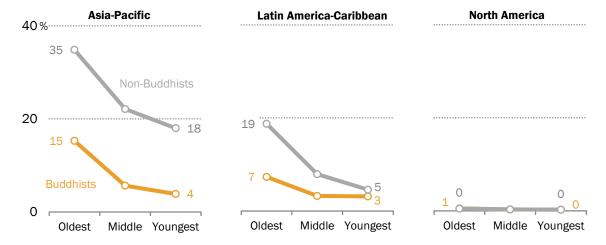




Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

#### Asia-Pacific saw largest drop in share of Buddhists with no formal schooling

% of Buddhists and non-Buddhists with no formal schooling across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Europe, the Middle East-North Africa region and sub-Saharan Africa are not shown due to lack of sufficient generational data on Buddhists in these regions. Brazil and Mexico are the only countries with data on Buddhists in Latin America and together constitute 60% of the region's Buddhist adult population.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

#### Gender equality in educational attainment among young Buddhists

Across generations, gender gaps in Buddhist educational attainment have shrunk as Buddhist women have made larger gains than Buddhist men. In the oldest generation, Buddhist women lag behind their male counterparts by an average of 2.2 years of schooling. Among those in the middle generation, and continuing among the youngest, Buddhist women have caught up to men and largely closed the gender gap in average years of schooling. Globally, the youngest Buddhist women have an average of 9.6 years of schooling, while the youngest Buddhist men average 9.8 years.

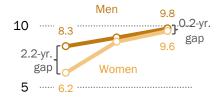
The gender gap in average years of schooling has reversed among Buddhists in Latin America and the Caribbean, where the youngest Buddhist women have half a year more of schooling than the youngest Buddhist men. By contrast, compared with the oldest generation, the gender gap in average years of schooling among Buddhists has widened slightly in North America, where Buddhist men in the youngest generation have 0.6 more years of schooling, on average, than the youngest Buddhist women.

Globally, the gender gap also has closed when it comes to basic schooling. While nearly all Buddhist men in the oldest generation received some formal education (94%), about three-quarters of the oldest women did (77%). This gap has narrowed to 2 points across generations, as 97% of the youngest Buddhist men and 95% of the youngest Buddhist women have at least some formal education.

# As Buddhist women make large gains, gender gap in average years of schooling has nearly vanished

Average years of schooling for Buddhist men and women across three generations







Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

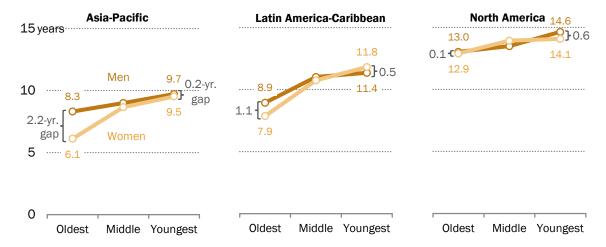
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These generational changes in the gender gap by this measure have been largest in the Asia-Pacific region, and particularly in China. Three-in-ten of the oldest Buddhist women in China (30%) have no formal schooling, compared with just 7% of the oldest Buddhist men. But among those in China's youngest generation, nearly all Buddhist men and women have received at least some formal schooling (99% of men and 98% of women).

#### In Asia, Buddhist women have nearly equaled men in educational attainment

Average years of schooling for Buddhist men and women across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Europe, the Middle East-North Africa region and sub-Saharan Africa are not shown due to lack of sufficient generational data on Buddhists in these regions. Brazil and Mexico are the only countries with data on Buddhists in Latin America and together constitute 60% of the region's Buddhist adult population.

Source: Pew Research Center analysis. See Methodology for more details.

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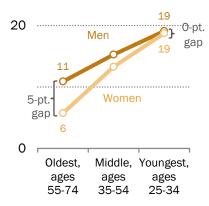
The Buddhist gender gap in higher education also has closed across generations at the global level. Buddhist women in the oldest generation in the study are less likely than Buddhist men to have post-secondary degrees (6% of women vs. 11% of men), but in the youngest generation, women are now as likely as men to have higher education (19% each). In Latin America and the Caribbean, the Buddhist gender gap in higher education has reversed: While Buddhist men in the oldest generation are 8 percentage points more likely than Buddhist women to have a post-secondary education, Buddhist women in the youngest generation are 5 percentage points more likely than men to have higher education.

In North America, the oldest and middle generations of Buddhist men lag behind their female peers somewhat when it comes to higher education. But the youngest Buddhist men in North America are more likely than the youngest Buddhist women (by 4 percentage points) to have post-secondary degrees.

# Young Buddhist women have closed gender gap in higher education

% of Buddhist men and women with post-secondary degrees, across three generations





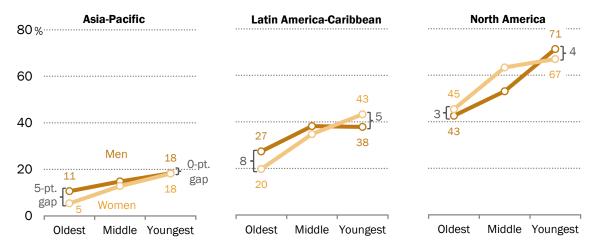
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

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#### In U.S., Buddhist men have surpassed women in higher education

% of Buddhist men and women with post-secondary degrees across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Europe, the Middle East-North Africa region and sub-Saharan Africa are not shown due to lack of sufficient generational data on Buddhists in these regions. Brazil and Mexico are the only countries with data on Buddhists in Latin America and together constitute 60% of the region's Buddhist adult population.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

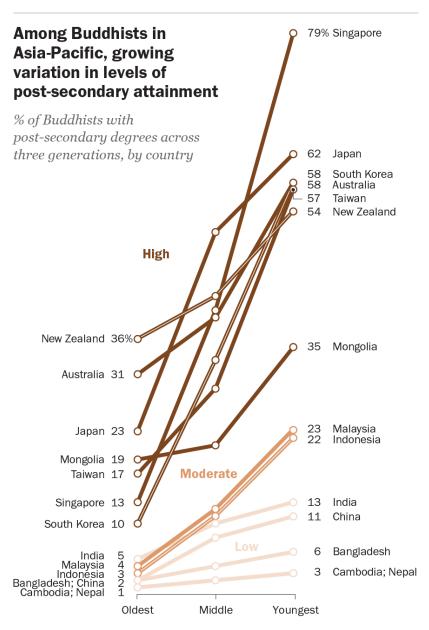
#### Sidebar: Buddhist diversity in higher education in Asia and the Pacific

The Asia-Pacific region is home to 99% of the world's Buddhists. But within the region, Buddhists have a wide range of educational attainment across countries, particularly when it comes to higher education.

In one group of countries – including China, Nepal, India, Bangladesh, Thailand, Cambodia and Vietnam – roughly one-in-ten or fewer Buddhists have post-secondary degrees, while slightly larger shares in Malaysia and Indonesia have higher education (12% each).

But in several other countries, including South Korea, Japan, Taiwan, Singapore, Australia, New Zealand and Mongolia, higher education is much more common among Buddhists, ranging from 24% in South Korea with post-secondary degrees to 44% in New Zealand. In Japan, which is home to nearly 46 million Buddhists (9.4% of the global Buddhist population), one-third of Buddhists have post-secondary degrees.

These country-level differences reflect relatively recent changes. Buddhists in the youngest generation typically have higher levels of education than those in the oldest generation, and this net change is by and large greater in higher achieving countries than in lower achieving countries. For instance, 79% of the youngest Buddhists in Singapore have higher education, compared with 13% in the oldest generation in the study (a 66-point increase). Buddhists in Japan, Taiwan, South Korea and Australia



Note: Lines representing New Zealand, South Korea, and Indonesia include white stripes for legibility. The oldest, middle, and youngest cohorts were born in 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54, and 25-34 as of 2010. High, medium, and low categories refer to the level of post-secondary attainment in the Buddhist adult population. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

also made gains of at least 25 points across these generations; in each of these countries, more than half in the youngest generation have post-secondary degrees.

By contrast, Buddhists in other Asia-Pacific countries have experienced more modest growth in higher education. In Cambodia, home to more than 13 million Buddhists, the share of Buddhists with post-secondary degrees has increased from 1% among the oldest generation to just 3% among the youngest. And in China, 11% of Buddhists in the youngest generation have higher education, compared with 2% in the oldest generation.

Buddhists in Indonesia and Malaysia have made larger gains, but not as large as those in the higher-achieving countries (see chart).

#### 5. Hindu educational attainment

Hindus have made substantial educational gains in recent decades. Hindu adults (ages 25 and older) in the youngest generation analyzed in the study, for example, have an average of 3.4 more years of schooling than those in the oldest generation.

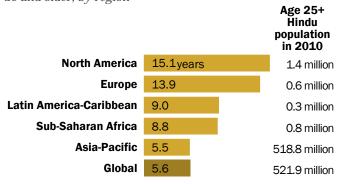
However, Hindus still have the lowest level of educational attainment of any major religious group in this study. Globally, they average 5.6 years of schooling, and 41% of Hindus have no formal education of any kind. One-in-ten have post-secondary degrees.

In addition, despite large gains by Hindu women across generations, Hindus still have the largest educational gender gap of any religious group. On average, Hindu men have 2.7 more years of schooling than Hindu women, and just over half of Hindu women (53%) have no formal schooling, compared with 29% of Hindu men. Even in the youngest generation of adults in the study, Hindu women are considerably more likely than Hindu men to have received no formal education (38% vs. 20%).

The vast majority of the world's Hindus live in India (94%) or in the bordering countries of Nepal (2.3%) and Bangladesh (1.2%). In these three countries, Hindus tend to have low levels of education; in India, Hindus

## Hindus have 5.6 years of schooling, on average, worldwide

Average years of schooling for Hindus ages 25 and older, by region



Note: Data shown for adults in 27 countries, which make up 99% of the global population of Hindus in 2010. The Middle East-North Africa region is not shown due to lack of sufficient data on Hindus.

Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

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average 5.5 years of schooling, while in Nepal and Bangladesh they average 3.9 and 4.6 years, respectively.

However, in countries outside the Asia-Pacific region, where Hindus are a small religious minority, they are much more highly educated – and often are the most highly educated religious group in a particular country. For instance, Hindus in the United States have 15.7 years of schooling, on average – a full year more than the next most highly educated U.S. religious group (Jews), and nearly three years more than the average American adult (12.9 years). Hindus in Europe also are highly educated, averaging 13.9 years of schooling.

#### Hindus have highest levels of schooling where they are a religious minority

Average years of schooling for Hindus ages 25 and older around the world



Highest average yea		Average years of schooling in countries with LARGEST ADULT HINDU POPULATIONS				
1 United States	15.7 years	1 India	5.5 years	India	5.5 years	497.5 million
2 Mexico	15.4	2 Nepal	3.9	Nepal	3.9	10.4 million
3 Bahamas	15.0			Bangladesh	4.6	6.9 million
4 Australia	14.7			Indonesia	7.8	2.4 million
5 New Zealand	14.6			United States	15.7	1.1 million
Median when minority (25 countries)	13.0	Median when majority (2 countries)	4.7	Global median (27 countries)	12.8	521.9 million

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

In Hindu-majority India, 59% of Hindus have at least some formal schooling. By contrast, nearly all Hindus in North America, Europe and the Latin America-Caribbean region have received at least some schooling. In addition, in sub-Saharan Africa, 93% of Hindus have at least some formal schooling – far higher than the share of non-Hindus in sub-Saharan Africa with some education (59%).

Similarly, levels of higher education among Hindus vary widely around the world. One-in-ten Hindus in the Asia-Pacific region have post-secondary degrees (including 10% in India and 6% in the region's other countries). But in North America and Europe, majorities of Hindus (87% and 57%, respectively) have a post-secondary education.

#### Hindus in Europe, North America are far more educated than those in India

% of Hindus ages 25 and older with each level of education, by region

		No formal schooling	Primary schooling	Secondary schooling	Higher education
Europe	Hindus	0	10	32	57
	Non-Hindus	2	13	61	25
North America	Hindus	1	2	10	87
	Non-Hindus	1	5	54	40
Latin	Hindus	4	39	45	12
America-Caribbean	Non-Hindus	10	39	37	13
Sub-Saharan Africa	Hindus	7	31	55	7
	Non-Hindus	41	32	22	5
Asia-Pacific	Hindus	41	21	28	10
	Non-Hindus	16	29	44	11
Asia-Pacific w/o India	Hindus	43	23	27	6
	Non-Hindus	14	30	45	11
India	Hindus	41	20	28	10
	Non-Hindus	42	23	26	9
Global	Hindus	41	21	28	10
	Non-Hindus	14	26	45	15
				Some formal schooli	ng

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Rows may not add to 100% due to rounding. The Middle East-North Africa region is not shown due to lack of sufficient data on Hindus.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

The educational gender gap among Hindus is larger than that of any other religious group. Worldwide, Hindu men have an average of 6.9 years of schooling, compared with 4.2 years for Hindu women. Just over half of Hindu women (53%) have no formal education, compared with 29% of Hindu men. The gender gap in higher education is narrower, but Hindu men are still nearly twice as likely as women to have post-secondary degrees (13% vs. 7%).

Outside the Asia-Pacific region, however, gender gaps among Hindus are narrower. In Latin America and the Caribbean, for example, Hindu men and women have nearly the same number of years of schooling, on average, and similar shares have higher education. And in North America, Hindu men average less than a year more schooling than women, while large majorities of both men and women have a post-secondary education (92% and 80%, respectively). In Europe, the pattern is similar to that seen in North America.

#### Globally, Hindus have the largest gender gap of any major religious group

Average years of formal schooling for Hindu men and women, by region

		Men	Women	Women to	rail men by	
Asia-Pacific	Hindus	6.8 yrs	4.2 yrs	2.7 yrs		
	Non-Hindus	8.0	6.8		1.2	
Asia-Pacific w/o India	Hindus	6.2	4.0	2.3		
	Non-Hindus	8.1	7.0		1.1	
India	Hindus	6.9	4.2	2.7	•	
	Non-Hindus	6.0	4.3	1.	.8	
Sub-Saharan Africa	Hindus	9.6	8.2		1.4	
	Non-Hindus	5.7	4.1	1	L.7	
Europe	Hindus	14.3	13.6		0.7	
	Non-Hindus	11.2	10.8		0.4	
North America	Hindus	15.4	14.7		0.7	
	Non-Hindus	12.8	12.9			
Latin America-Caribbean	Hindus	9.1	8.9	•	(	).1
	Non-Hindus	7.4	7.3			0.0
Global average	Hindus	6.9	4.2	2.7		
	Non-Hindus	8.6	7.8		0.8	

Note: Based on adults ages 25 and older as of 2010 (or latest year available). Values in difference column are calculated based on unrounded numbers. The Middle East-North Africa region is not shown due to lack of sufficient data on Hindus. Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

## Hindus make gains in educational attainment across generations, but still trail other groups

Hindus, starting from a relatively low base, have made some of the most rapid educational gains of

any religious group. Across the three generations in this study, Hindus have gained an average of nearly 3.4 additional years of schooling. The largest increase has taken place among Hindus in sub-Saharan Africa, where the youngest generation in the study has 10.2 years of schooling, on average, compared with 5.6 years of schooling for the oldest generation.

#### Youngest Hindus have nearly twice as many years of schooling, on average, as oldest Hindus

Average years of schooling across three generations

15 years .....

10 Non-Hindus 9.0
7.2 7.1
5 Hindus

Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

Oldest, Middle, Youngest,

ages

25-34

ages

35-54

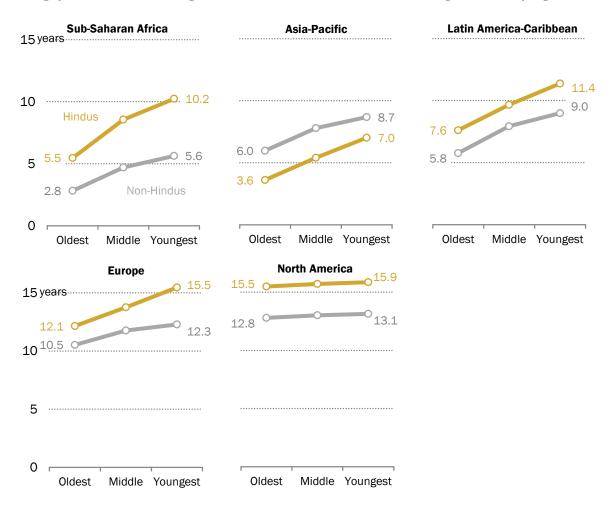
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ages

55-74

#### In most regions, Hindus gained three or more years of schooling across generations

Average years of formal schooling for Hindu and non-Hindu adults across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Mauritania and Zambia are the only countries in sub-Saharan Africa in generational analysis because of missing data on youngest cohort in South Africa. The Middle East-North Africa region is not shown due to lack of sufficient data on Hindus. Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

Hindu adults worldwide also have made large gains in the share that have some formal schooling

— especially in the Asia-Pacific region, where the overwhelming majority of Hindus live. The share of Hindus in this region with no formal education has dropped dramatically, from 57% in the oldest generation (born 1936 to 1955) to 29% in the youngest (born 1976 to 1985). In all other regions, nearly universal shares of those in the youngest generation of Hindus have at least some basic education.

The share of Hindus with post-secondary degrees has increased steadily across generations at the global level, from 6% in the oldest generation to 14% in the youngest. In Europe, higher education among Hindus has expanded at a much faster pace, increasing by more than 30 percentage points across generations (from 41% among the oldest to 74% among the youngest). In the United States, more than 95% of Hindus in all three generations have post-secondary degrees.

# Share of Hindus with no formal schooling dropped dramatically across generations

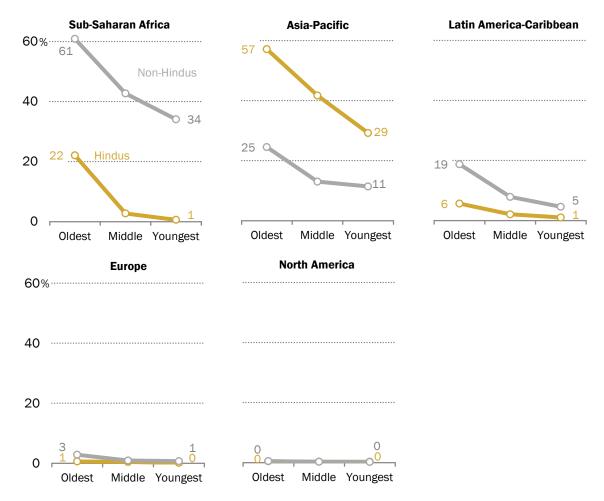
% of Hindus and non-Hindus with no formal schooling across three generations



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

#### Large decline in share with no formal schooling among Hindus in Asia-Pacific

% of Hindus and non-Hindus with no formal schooling across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Mauritania and Zambia are the only countries in sub-Saharan Africa in generational analysis because of missing data on youngest cohort in South Africa. The Middle East-North Africa region is not shown due to lack of sufficient data on Hindus. Source: Pew Research Center analysis. See Methodology for more details.

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## Sidebar: In India, religious differences in acquiring formal education have narrowed but remain large

India is home to 94% of the world's Hindus, who make up nearly 80% of the country's population. The second most populous country in the world, India is rich in religious diversity, with large minority populations of Muslims, Christians and Buddhists. In fact, by 2050, India is projected to have the biggest Muslim population – some 311 million – of any country.

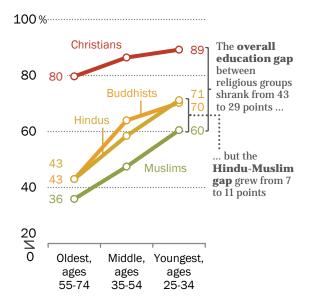
Educational attainment has been increasing rapidly for all religious groups in India in recent decades. But there are notable differences among the groups, especially in the share of those who have some formal education. Around six-in-ten Hindu and Buddhist adults (ages 25 and older) in India have at least some formal schooling, compared with half of Muslims and 85% of Christians.

These educational differences have narrowed across generations as Hindus, Buddhists and Muslims make more rapid progress than Christians. For example, in the oldest generation in the study, there was a 37-point difference between Christians and Hindus in the shares with at least some formal schooling (80% among Christians vs. 43% among Hindus); among the youngest generation, that gap has shrunk to just 18 points (89% vs. 71%).

However, the gap between India's two largest religious groups, Hindus and Muslims, in the share of those who have some formal schooling has *widened* slightly across generations. Among those in the oldest

#### Religious differences in schooling in India are narrowing across generations

% of Christians, Hindus, Buddhists and Muslims in India with at least some formal education, across three generations



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

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generation, 43% of Hindus and 36% of Muslims have at least some formal schooling, a gap of 7 percentage points. But in the youngest generation, that gap has grown to 11 percentage points as Hindus have made more rapid gains than Muslims. Among the youngest Hindus in the study, 71% have at least some formal schooling, compared with 60% of the youngest Muslims.

The widening of the Hindu-Muslim education gap is primarily a result of differences in men's attainment. The gap between the share of Hindu and Muslim men with at least some basic education grew from 9 points in the oldest generation (59% vs. 50%) to 14 points in the youngest (80% vs. 66%). But among women, the Hindu-Muslim gap was 6 percentage points in the youngest and oldest cohorts.

#### Hindu women are gaining on men in attainment, but large gender gaps persist

Hindu women have made larger generational gains than men by most measures of educational attainment. The youngest Hindu women in the study have nearly four more years of schooling than the oldest Hindu women (5.9 years vs. 2.1 years, on average). In the same time period, Hindu men gained three years of schooling. As a result, the gender gap in average years of schooling decreased from 3.1 years to 2.2 years across generations.

Still, even among those in the youngest generation, Hindus continue to have the largest gender gap in average years of schooling of any major religious group.

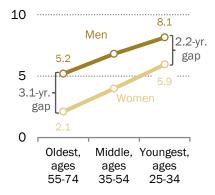
Outside the Asia-Pacific region, however, Hindu women have reached parity with men in average years of schooling. In Europe, the gender gap shrank from 1.5 years among the oldest generation of Hindus to virtually no gap among the youngest. And in sub-Saharan Africa, the oldest Hindu women lag behind men by an average of 3.4 years of schooling, but the youngest Hindu women are *more e*ducated than their male peers by nearly half a year, on average.

The share of Hindu women with at least some formal education has increased dramatically across generations. Among the oldest generation, fewer than three-in-ten Hindu women have any schooling (28%). But among the youngest generation, the share with at least some formal education has more than doubled to 62%. Despite these gains, the gender gap remains substantial among the youngest Hindus; men in this age cohort are considerably more likely than women to have at least some basic education (80% vs. 62%). Effectively, this means that in the youngest generation of Hindu women, there are 31 million who have no formal education — which is 13 million more women than men in the same cohort.

#### Despite strong gains among women, gender gap remains large among youngest Hindus

Average years of schooling for Hindu men and women across three generations

15 years ·····



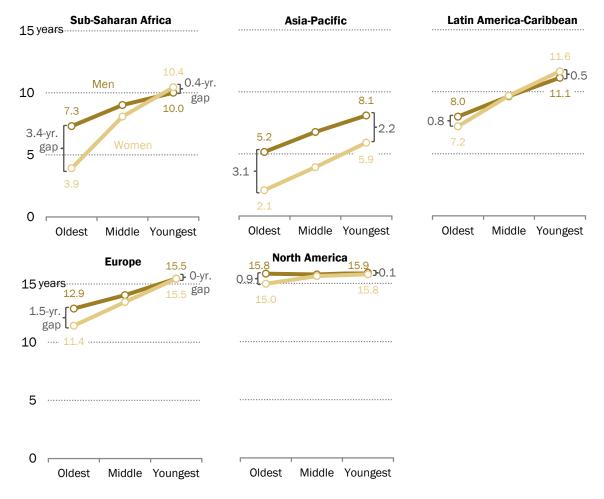
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

#### Outside Asia, young Hindu women have achieved parity with men in years of school

Average years of schooling for Hindu men and women across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Mauritania and Zambia are the only countries in sub-Saharan Africa in generational analysis because of missing data on youngest cohort in South Africa. The Middle East-North Africa region is not shown due to lack of sufficient data on Hindus.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

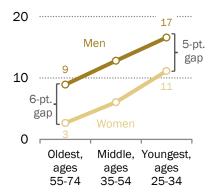
Among Hindus globally, there has been little change in the gender gap in higher education across generations. The share of Hindu men with post-secondary degrees increased from 9% among the oldest generation to 17% among the youngest, while the share of women with degrees increased from 3% to 11%.

Outside the Asia-Pacific region, however, gains by the youngest Hindu women have closed the gender gap in higher education in nearly every region. In Latin America and the Caribbean, for instance, the youngest Hindu women are *more* likely than men to have post-secondary degrees by 5 percentage points.

## Little change in Hindu gender gap in higher education

% of Hindu men and women with post-secondary degrees, across three generations





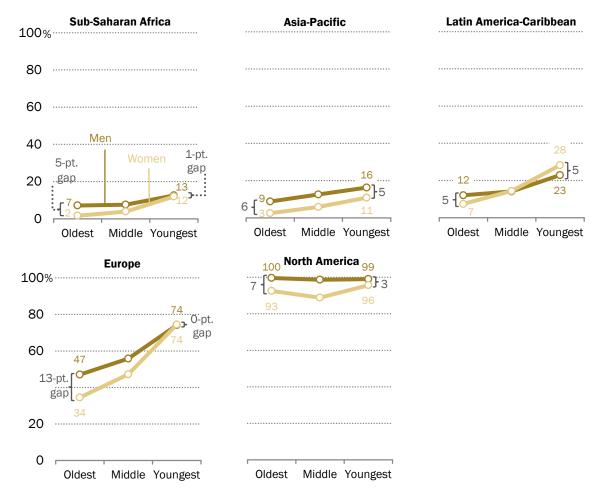
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

#### In Europe, Hindu women have caught up with men in higher education

% of Hindu men and women with post-secondary degrees across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada. Mauritania and Zambia are the only countries in sub-Saharan Africa in generational analysis because of missing data on youngest cohort in South Africa. The Middle East-North Africa region is not shown due to lack of sufficient data on Hindus.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

#### 6. Jewish educational attainment

With an average of 13.4 years of schooling, Jews are the most highly educated of the world's major religious groups. Nearly all Jewish adults ages 25 and older around the world (99%) have at least some primary education, and a majority (61%) has post-secondary degrees.

This high level of education has been the case for several decades, meaning that Jewish educational gains across recent generations have been modest. The youngest cohort of Jews analyzed in the study has, on average, just 0.4 more years of schooling than the oldest cohort, while the share with higher education has increased by only 1 percentage point across the three generations in the study. In fact, the share of Jewish men with post-secondary degrees actually has *declined* globally, driven by trends in the United States.<sup>27</sup>

About eight-in-ten of the world's Jews live in Israel or the U.S.<sup>28</sup> In Israel, Jewish adults have an average of 12.0 years of schooling, while in the U.S. they average 14.7 years. Jews living outside these two countries also tend to be highly educated

## Jews have 13.4 years of schooling, on average, worldwide

Average years of schooling for Jews ages 25 and older, by region



Note: Data shown for adults in 24 countries, which make up 89% of the global population of Jewish adults in 2010. Israel and Egypt are the only countries in the Middle East-North Africa region with data available on Jews and constitute 99.7% of the region's Jewish adult population. South Africa is the only country with data on Jews in sub-Saharan Africa and constitutes 69% of the region's Jewish adult population.

Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

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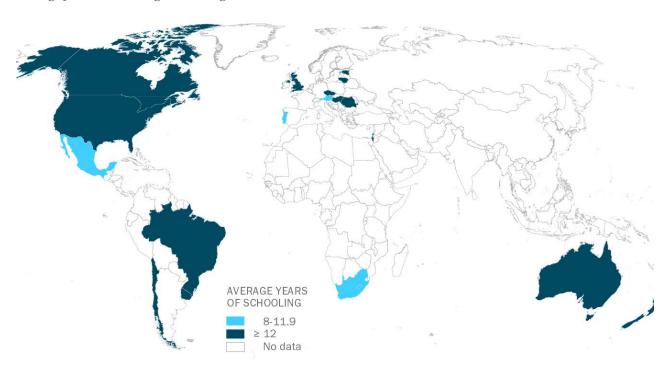
and, in most cases, have greater levels of attainment than their non-Jewish compatriots.

<sup>&</sup>lt;sup>27</sup> For more on declines in post-secondary education among U.S. Jewish men, see the sidebar on page 114. This analysis only includes, as Jews, people who identify *religiously* as Jewish. A <u>previous Pew Research Center study</u> found that a substantial share of U.S. Jews more broadly defined (about one-in-five) describe their religious identity as atheist, agnostic or "nothing in particular," but nonetheless say they consider themselves Jewish in other ways. These "Jews of no religion," who tend to be highly educated, are considered as religiously unaffiliated for the purposes of this study.

<sup>&</sup>lt;sup>28</sup> Population estimate is as of 2010, from Pew Research Center's 2015 report "The Future of World Religions: Population Growth Projections, 2010-2050."

#### Jews are highly educated in most countries where they live

Average years of schooling for Jews ages 25 and older around the world



Highest average ye RELIGIOUS MIN		ng in countries where Jo RELIGIOUS MA		Average years of LARGEST ADU	schooling in LT JEWISH POP	
1 Estonia	14.9 years	1 Israel	12.0 years	United States	14.7 years	3.9 million
2 New Zealand	14.8			Israel	12.0	3.4 million
3 Lithuania	14.7			Canada	14.3	0.2 million
4 United States	14.7			United Kingdom	13.2	0.2 million
5 Canada	14.3			Australia	14.3	0.1 million
Median when minority (23 countries)	12.9	Median when majority (1 country)	12.0	Global median (24 countries)	12.8	8.1 million

Note: Based on adults ages 25 years and older as of 2010 (or latest year available). Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

In Brazil, home to roughly 110,000 Jews in 2010, Jews average 12.5 years of schooling – nearly twice as many as non-Jewish Brazilians (6.8 years). And in South Africa, the only sub-Saharan African country with education data on Jews, members of that group average 12.0 years of schooling and 29% have post-secondary degrees, compared with an average of 7.2 years of schooling and 3% with higher education among non-Jewish South Africans.<sup>29</sup>

Nearly all Jews around the world have at least some formal schooling, and there is relatively little variation across countries on this measure of attainment. Even in Portugal, which has one of the least-educated Jewish populations (with an average of 9.0 years of schooling), 92% of Jews have some formal schooling and 58% have at least a secondary education.

#### Nearly all Jews have at least some formal schooling and 61% have higher education

% of Jews ages 25 and older with each level of education, by region

		No f	ormal sch	ooling	Primary	schooling	Secondary schooli	ing Higher education
North America	Jews	0			1		24	75
	Non-Jews	1			5		54	40
Asia-Pacific	Jews	1			4		34	61
	Non-Jews	22			27		40	11
Europe	Jews	0			14		38	47
	Non-Jews	2			13		61	25
Middle East-North	Jews	2			15		36	46
Africa	Non-Jews	42			16		29	13
Latin	Jews	3			9		37	52
America-Caribbean	Non-Jews	10			39		37	13
Sub-Saharan Africa	Jews	3			8		60	29
	Non-Jews	41			32		22	5
Global	Jews	1			7		30	61
	Non-Jews	19			25		42	14

Note: Based on adults ages 25 years and older as of 2010 (or latest year available). Rows may not add to 100% due to rounding. Israel and Egypt are the only countries in the Middle East-North Africa region with education data available on Jews; those countries make up 99.7% of the region's Jewish adult population. South Africa is the only country with data on Jews in sub-Saharan Africa and constitutes 69% of the region's Jewish adult population.

Some formal schooling

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

<sup>&</sup>lt;sup>29</sup> Israel and Egypt are the only countries in the Middle East-North Africa region with available data on Jewish education attainment. But Jews in Egypt represent less than 1% of the Jewish population in the region. As a result, education patterns among Jews in the Middle East-North Africa region discussed in this chapter essentially represent Israeli Jews.

There are greater discrepancies among Jews in different regions when it comes to higher education. Just under half of all Israeli Jews (46%) and three-quarters of North American Jews have post-secondary degrees. But in South Africa, fewer than three-in-ten Jewish adults (29%) have obtained this level of higher education.

Jews have a great deal of gender equality in educational attainment. Globally, Jewish men and women each have 13.4 years of schooling, on average, and 61% of both men and women have post-secondary degrees. In the youngest generation of Jews, women have a year *more* of schooling, on average, than men, and women are more likely than men (by 12 percentage points) to have higher education.<sup>30</sup>

Across regions, gender differences in attainment vary, but they tend to be small. In North America, Jewish women have slightly less education, on average, than Jewish men, while in Israel, Jewish women are slightly more educated than Jewish men.

<sup>&</sup>lt;sup>30</sup> Data on Jewish educational attainment in Israel are based on responses to the 2008 Israeli census question about the highest level diploma or degree received. Calculations of mean years of school are based on estimates of the average years of education associated with each degree. Estimates do not include additional years of education in religious schools (such as a yeshiva) that do not grant degrees (most yeshivot do not). Excluding yeshiva education, young Jewish women have slightly more schooling than young Jewish men, on average. Since yeshiva education is primarily undertaken by men, if it were included in our estimates, the mean years of schooling among the youngest generation of Jewish men might be more similar to women.

#### Globally, Jewish men and women average an equal number of years of schooling

Average years of formal schooling for Jewish men and women, by region

		Men	Women	Women trail m	_	Women lead men by
Sub-Saharan Africa	Jews	12.4 yrs.	11.7 yrs.	0.7	yrs	
	Non-Jews	5.7	4.1	1.7		
Europe	Jews	13.5	12.8		0.7	
	Non-Jews	11.2	10.8		0.4	
Latin America-Caribbean	Jews	12.1	11.6		0.5	
	Non-Jews	7.4	7.3		0.0	
North America	Jews	14.8	14.5		0.2	
	Non-Jews	12.8	12.8			0.0
Asia-Pacific	Jews	14.1	14.0		0.1	
	Non-Jews	7.7	6.2	1.5		
Middle East-North Africa	Jews	11.8	12.2			0.3
	Non-Jews	6.9	4.9	2.0		
Global average	Jews	13.4	13.4	••••••	0.0	
	Non-Jews	8.3	7.2	1.1		

Note: Based on adults ages 25 years and older as of 2010 (or latest year available). Values in difference column are calculated based on unrounded numbers. Israel and Egypt are the only countries in the Middle East-North Africa region with data available on Jews and constitute 99.7% of the region's Jewish adult population. South Africa is the only country with data on Jews in sub-Saharan Africa and constitutes 69% of the region's Jewish adult population.

Source: Pew Research Center analysis. See Methodology for more details.

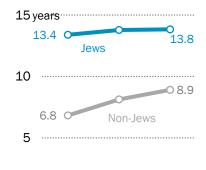
<sup>&</sup>quot;Religion and Education Around the World"

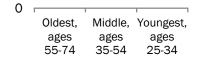
#### Jewish educational attainment fairly stable in recent decades

Across generations in this study, Jews have seen slight gains in their already-high educational attainment. Worldwide, the youngest generation of Jews in the study (those born between 1976 and 1985) have 0.4 more years of schooling than the oldest generation (born 1936-55). The largest increase has taken place in Europe, where the youngest Jews have 14.8 years of schooling, on average, compared with 12.5 years of schooling for the oldest generation.

# Globally, Jews maintain high education levels across generations

Average years of schooling across three generations

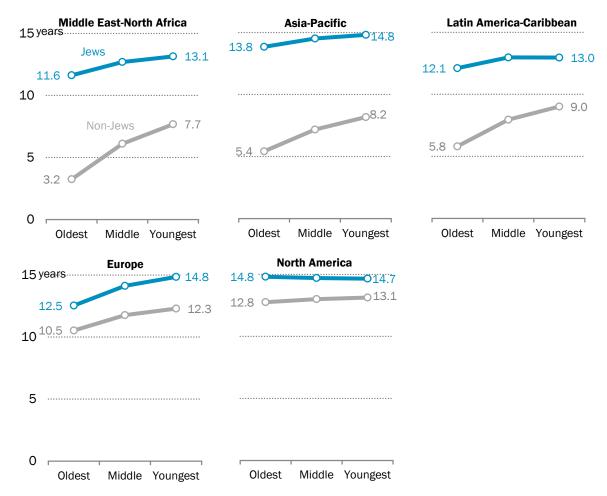




Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

#### Jews have made largest gains in average years of schooling in Europe

Average years of formal schooling for Jews and non-Jews across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Israel and Egypt are the only countries in the Middle East-North Africa region with data available on Jews and constitute 99.7% of the region's Jewish adult population. Sub-Saharan Africa is not included in generational analysis because of missing data on the youngest cohort in South Africa. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

#### Sidebar: Education gap between Israeli Jews and Muslims is large but narrowing

Differences in educational attainment between Jews and Muslims in Israel are substantial. In the oldest generation in the study, Israeli Jews have an average of 11.6 years of schooling – roughly six years more than Israeli Muslims, who have, on average, 5.7 years of schooling.

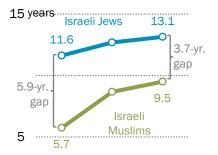
But among the youngest generations, the educational attainment gap between Jews and Muslims has narrowed due to large gains among Muslims. Across three generations, Israeli Muslims gained nearly four additional years of schooling, on average (from 5.7 years to 9.5 years), compared with an increase of 1.5 years among Israeli Jews (11.6 years to 13.1 years). The result is a 3.7-year difference in average years of schooling between Jews and Muslims in the youngest generation.

An increase in formal schooling among Muslim women in Israel is a major factor in narrowing the gap. The share of Muslim women with no formal schooling dropped from 23% among those in the oldest generation to 4% in the youngest. (Most Muslim men and nearly all Jewish men and women in the oldest generation have at least some formal schooling.)

Israeli Jews remain far more likely than Israeli Muslims to earn post-secondary degrees, and the gap persists across generations even as higher education has increased in both groups. Among the oldest generations, 46% of Jews and 9% of Muslims have higher education – a 37-point difference. In the youngest generations, 56% of Jews and 22% of Muslims have post-secondary degrees – still a 34-point difference.

# In Israel, Jews are more educated than Muslims, but the gap is narrowing

Average years of schooling for Israeli Jews and Muslims, across three generations





Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

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The share of Jews worldwide who have no formal schooling has decreased from 1.5% among the oldest generation to 0.5% among the youngest. The largest declines were in the Latin America-Caribbean region and in Israel (3- and 2-percentage point declines, respectively). In every region of the world, 99% of Jews in the youngest cohort in the study have at least some formal schooling.

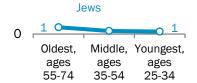
Globally, the share of Jews with post-secondary degrees has increased by 1 percentage point across the three generations in the study, from 62% among the oldest to 63% among the youngest. But gains have been more substantial in some regions. In Europe, the share of Jews with higher education has increased by 23 percentage points across these generations, from 42% to 65%. And in Israel, the youngest generation is 10 percentage points more likely than the oldest to have a post-secondary education (56% vs. 46%).

# Among Jews worldwide, almost all have at least some schooling

% with no formal schooling across three generations



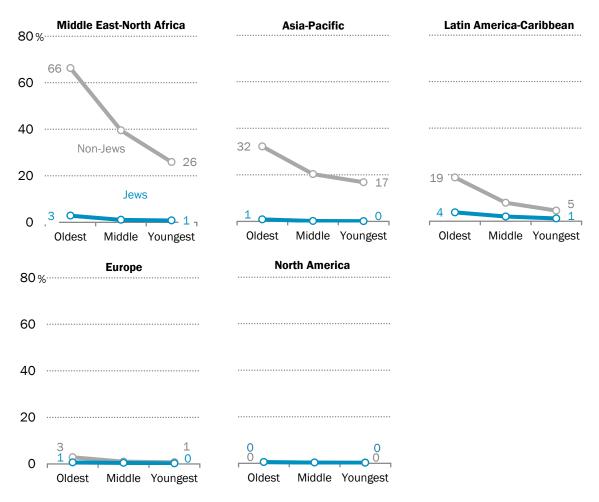




Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Source: Pew Research Center analysis. See Methodology for more details. "Religion and Education Around the World"

# In every region of the world, 99% or more of Jews in the youngest generation have at least some basic schooling

% with no formal schooling across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Israel and Egypt are the only countries in the Middle East-North Africa region with data available on Jews and constitute 99.7% of the region's Jewish adult population. Sub-Saharan Africa is not included in generational analysis because of missing data on the youngest cohort in South Africa. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

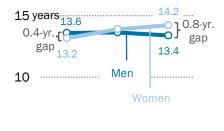
# Young Jewish women have surpassed men in educational attainment

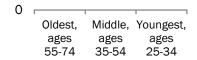
Globally, the youngest Jewish women ages 25 and older are more highly educated than their male peers due to larger gains among women than men in nearly every region of the world. Jewish women have gained one more year of schooling, on average, across the three generations in the study; the oldest cohort has an average of 13.2 years of schooling, and the youngest has 14.2 years. Men's attainment, meanwhile, has remained relatively stable across generations (the oldest Jewish men have 13.6 years of schooling while the youngest have 13.4 years). As a result, the youngest Jewish women now have nearly a full year more of schooling (0.8 years, on average) than the youngest Jewish men.

In Israel, Jewish men and women in the oldest generation in the study had the same average levels of education. But in the youngest generation, women average a full year more of schooling. The youngest Jewish women in Europe and North America also have surpassed their male peers in this regard.

# Jewish gender gap has reversed across generations

Average years of schooling for Jewish men and women across three generations





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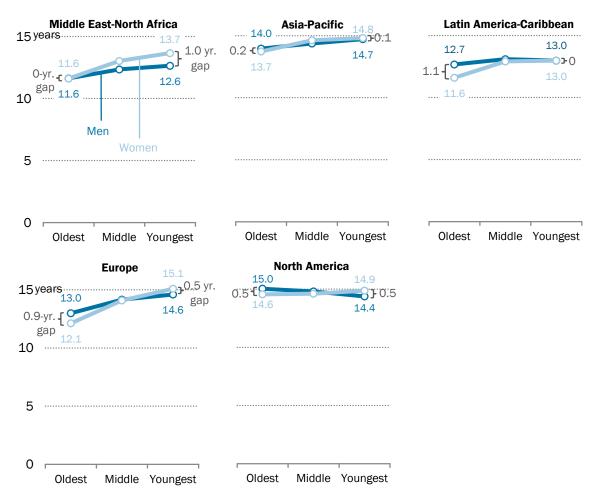
Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

"Religion and Education Around the World"

# In most regions of the world, youngest Jewish women have more average years of schooling than youngest men

Average years of schooling for Jewish men and women across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. Israel and Egypt are the only countries in the Middle East-North Africa region with data available on Jews and constitute 99.7% of the region's Jewish adult population. Sub-Saharan Africa is not included in generation analysis because of missing data on the youngest cohort in South Africa. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada.

Source: Pew Research Center analysis. See Methodology for more details.

<sup>&</sup>quot;Religion and Education Around the World"

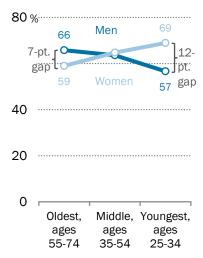
Generational changes in the Jewish gender gap are even greater in higher education. Nearly seven-in-ten of the youngest Jewish women worldwide (69%) have post-secondary degrees, up from about six-in-ten (59%) in the oldest cohort. But Jewish men have moved in the opposite direction; the share with higher education has declined across generations by 9 percentage points, from 66% in the oldest generation to 57% in the youngest. The combination of these two trends has reversed the Jewish gender gap in higher education. Whereas Jewish men are more likely to have post-secondary degrees in the oldest cohort (by 7 percentage points), Jewish women in the youngest cohort are *more* likely than men to have higher education – by 12 points.

The drop in the global share of Jewish men with higher education is primarily due to trends in the United States, home to 41% of the world's total Jewish population of all ages (as of 2010). The share of Jewish men in the United States with post-secondary degrees has declined from 81% in the oldest generation to 65% in the youngest, a 17-point decrease. A number of factors are behind this decline (for more, see sidebar on page 114).

The gender gap in higher education also has reversed in Israel, where Jewish women have made more rapid gains than Jewish men. Among the oldest cohort of Israeli Jewish men and women, equal shares (46% each) hold post-secondary degrees.

# Jewish gender gap in higher education has reversed

% of Jewish men and women with post-secondary degrees, across three generations



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers.

Source: Pew Research Center analysis. See Methodology for more details.

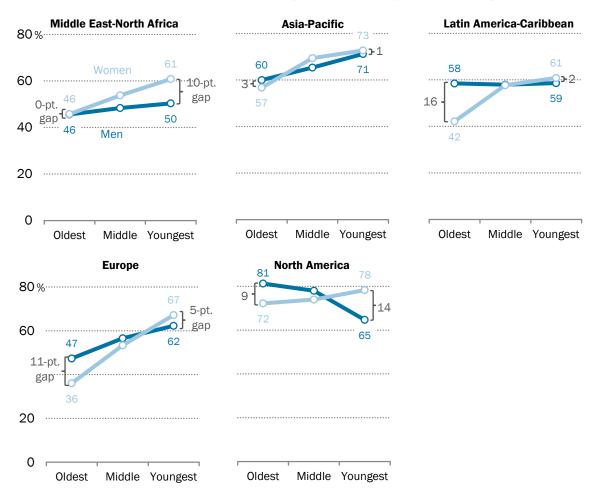
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But in the youngest cohort, 50% of Jewish men and 61% of women have higher education.

# Youngest Jewish women more likely than youngest men to have higher education across regions

% of Jewish men and women with post-secondary degrees across three generations, by region



Note: The oldest, middle and youngest cohorts were born 1936-1955, 1956-1975 and 1976-1985, respectively, and were ages 55-74, 35-54 and 25-34 as of 2010. Gaps are calculated based on unrounded numbers. Israel and Egypt are the only countries in the Middle East-North Africa region with data available on Jews and constitute 99.7% of the region's Jewish adult population. Sub-Saharan Africa is not included in generation analysis because of missing data on the youngest cohort in South Africa. The United States is the only country in North America in generational analysis because of missing data on youngest cohort in Canada.

Source: Pew Research Center analysis. See Methodology for more details.

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## Sidebar: Behind the decline in higher education among Jewish men in the United States

Although Jews are one of the most highly educated religious groups in the United States, the youngest Jewish men are less likely than the oldest Jewish men to have post-secondary degrees. The decline is substantial: Eight-in-ten Jewish men in the oldest generation (81%) have post-secondary degrees, compared with about two-thirds (65%) in the youngest generation in the study – a 17-point decrease.

Men with no religious affiliation in the United States also saw a decrease in higher educational attainment across these generations (8-point decline). And the share of Christian men with higher education decreased slightly from 37% to 34% between the oldest and youngest generations. But the decrease among Jews in the share with higher education has been more pronounced.

There are two contributing factors to the decline in U.S. Jewish men's educational attainment. First, a larger share of U.S. Jews among the youngest generation in this study identify as Orthodox – a group that tends to be less educated than other U.S. Jews – compared with the oldest. Among the oldest generation (born 1936 to 1955), 7% of Jewish men identify as Orthodox, compared with 33% among the youngest generation (born 1976 to 1985). In addition, fewer of the youngest Orthodox Jewish men are earning post-secondary degrees: 77% of the oldest Orthodox Jewish men have higher education, compared with 37% of the youngest.

This analysis only includes, as Jews, people who identify *religiously* as Jewish. A <u>previous Pew Research Center study</u> found that a substantial share of U.S. Jews more broadly defined (about one-in-five) describe their religious identity as atheist, agnostic or "nothing in particular," but nonetheless say they consider themselves Jewish in other ways. These "Jews of no religion," who tend to be highly educated, are considered as religiously unaffiliated for the purposes of this study.

# 7. How religion may affect educational attainment: scholarly theories and historical background

Religion and education, two of humankind's most ancient endeavors, have long had a close relationship. Historians and social scientists have written about this relationship and about how the two may influence each other.

This chapter presents a broad overview of scholarly research into the ways religion can affect educational achievement. It is not an exhaustive survey of the academic literature, but instead a brief summary of some explanations proposed to account for attainment differences among religious groups. Religion is certainly not the only reason for this variance; many other factors may play an equal or greater role, including economic, geographic, cultural factors and political conditions within a country or region.

The chapter begins with an historical look at ways in which scholars suggest that various religions have influenced education, especially the spread of literacy among laypeople. This section also explores how historical patterns sometimes help explain contemporary patterns in educational attainment. Next, this chapter considers hypotheses about how the cultural norms and doctrines of a religious group may affect educational attainment. It concludes with a look at some leading theories for the stark differences in educational attainment between Christians and Muslims living in sub-Saharan Africa.

# Looking to the past

Contemporary access to schooling – a solid pathway to educational attainment – depends on a country's educational infrastructure. In many instances, the foundations of that infrastructure are based on facilities originally built by religious leaders and organizations to promote learning and spread the faith.

In India, the most learned men (and sometimes women) of ancient times were residents of Buddhist and Hindu monasteries. In the Middle East and Europe, Christian monks built libraries and, in the days before printing presses, preserved important earlier writings produced in Latin, Greek and Arabic. In many cases, these religious monasteries evolved into universities.

Other universities, particularly in the United States and Europe, were built by Christian denominations to educate their clergy and lay followers. Most of these institutions have since become secular in orientation, but their presence may help explain why populations in the U.S. and Europe are highly educated.

Apart from their roles in creating educational infrastructure, religious groups were foundational in fostering societal attitudes toward education.

#### Islam

There is considerable debate among scholars over the degree to which Islam has encouraged or discouraged secular education over the centuries. Some experts note that the first word of the Quran as it was revealed to Prophet Muhammad is "Iqra!" which means "Read!" or "Recite!"; they say Muslims are urged to pursue knowledge in order to better understand God's revealed word. Early Muslims made innovative intellectual contributions in such fields as mathematics, astronomy, philosophy, medicine and poetry. They established schools, often at mosques, known as *katatib* and *madrasas*. Islamic rulers built libraries and educational complexes, such as Baghdad's House of Wisdom and Cairo's Al-Azhar University, to nurture advanced scholarship. Under Muslim rule, southern Spain was a center of higher learning, producing such figures as the renowned Muslim philosopher Averroes. 32

But other scholars contend that these educational attainments, and the regard that Muslims had for intellectual inquiry in realms outside religion, were gradually attenuated by a complex mix of social and political events over several centuries. These events included foreign invasions, first by the Mongols, who destroyed the House of Wisdom in 1258, and then by Christians, who pushed Muslims out of Spain in 1492. Some scholars argue that the educational decline began earlier, in the 11th and 12th centuries, and was rooted in institutional changes. In particular, contends Harvard University Associate Professor of Economics Eric Chaney, the decline was caused by an increase in the political power of religious leaders who prioritized Islamic religious learning over scientific education. Their growing influence helped bring about a crucial shift in the Islamic approach to learning: It became dominated by the idea that divine revelation is superior to other types of knowledge, and that religious education should consist of learning only what Islamic scholars had said and written in the past. 34

In the view of some historians, this shift severely constricted intellectual inquiry in the Muslim world as the natural sciences, critical questioning and art were downplayed.<sup>35</sup> Education became primarily the study of established, traditional religious and legal canons. This change also

<sup>31</sup> Hefner, Robert W. and Muhammad Qasim Zaman, eds. 2007. "Schooling Islam: The Culture and Politics of Modern Muslim Education."

<sup>&</sup>lt;sup>32</sup> For descriptions of the intellectual climate under early Islam, see Sardar, Ziauddin. 1993. "Paper, Printing and Compact Disks: The Making and Unmaking of Islamic Culture." Media, Culture and Society. Also see Ahmad, Imad-ad-Dean. 2006. "Signs in the Heavens: A Muslim Astronomer's Perspective on Religion and Science."

<sup>&</sup>lt;sup>33</sup> Chaney, Eric. 2016. "Religion and the Rise and Fall of Islamic Science." Harvard University working paper.

<sup>&</sup>lt;sup>34</sup> For descriptions of this intellectual shift and its consequences, see Sardar, Ziauddin. 1993. "Paper, Printing and Compact Disks: The Making and Unmaking of Islamic Culture." Media, Culture and Society. Also see Ahmad, Imad-ad-Dean. 2006. "Signs in the Heavens: A Muslim Astronomer's Perspective on Religion and Science." Also see Bulliet, Richard W. 1994. "Islam, the View from the Edge." Also see Tibi, Bassam. 1993. "The Worldview of Sunni Arab Fundamentalists: Attitudes Toward Science and Technology." In Marty, Martin E. and R. Scott Appleby, eds. "Fundamentalisms and Society." Also see Halstead, J. Mark. 2004. "An Islamic Concept of Education." Comparative Education.

<sup>35</sup> Chaney, Eric. 2016. "Religion and the Rise and Fall of Islamic Science." Harvard University working paper. Also see Sardar, Ziauddin. 1993. "Paper, Printing and Compact Disks: The Making and Unmaking of Islamic Culture." Media, Culture and Society. Also see Ahmad, Imad-ad-Dean. 2006. "Signs in the Heavens: A Muslim Astronomer's Perspective on Religion and Science."

tightened religious scholars' control over the education of Muslims in Africa and the Middle East - a hold that was not broken until colonial governments and Christian missionaries introduced Western-style educational institutions.  $^{36}$ 

Some scholars argue that the decline in secular learning and the narrowing of intellectual inquiry among Muslims have been exaggerated, or did not take place. Columbia University history professor George Saliba writes: "In particular, the decline of Islamic science, which was supposed to have been caused by the religious environment ... does not seem to have taken place in reality. On the contrary, if we only look at the surviving scientific documents, we can clearly delineate a very flourishing activity in almost every scientific discipline" after the 12th century.<sup>37</sup>

Nowadays, Islamic religious leaders and religious schools still have great influence on education in some Muslim-majority countries, but they compete with government and private schools offering secular topics.

<sup>&</sup>lt;sup>36</sup> Hefner, Robert W. and Muhammad Qasim Zaman, eds. 2007. "Schooling Islam: The Culture and Politics of Modern Muslim Education." Hefner and Zaman write: "However different their details, the educational transformations in the broader Muslim world all had one thing in common. The ulama's [religious scholar's] monopoly on education had been broken once and for all. ... The new educational pluralism brought intensified competition between supporters of general as opposed to religious education, and fierce public debate over the place of Islam in an imagined postcolonial community."

<sup>&</sup>lt;sup>37</sup> Saliba, George. 2007. "Islamic Science and the Making of the European Renaissance." For other scholars who argue that the constrictions on intellectual innovation have been exaggerated by historians, see Hourani, Albert. 1991. "A History of the Arab Peoples." Also see Hallaq, Wael B. 1984. "Was the Gate of liithad Closed?" International Journal of Middle East Studies.

### **Christianity**

In the view of some scholars, the 16th-century Protestant Reformation was a driving force for public education in Europe. Protestant reformers promoted literacy because of their contention that everyone needed to read the Bible, which they viewed as the essential authority on doctrinal matters. Driven by this theological conviction, religious leaders urged the building of schools and the translation of the Bible into local languages — and Reformation leader Martin Luther set the example by translating the Bible into German.

Some scholars, however, argue that the "Second Reformation" of the German Pietist movement in the 17th and 18th centuries was even more influential in promoting literacy. Historians Richard L. Gawthrop of Franklin College and the late Gerald Strauss of Indiana University note that in addition to stressing the need for personal Bible reading, the Pietists persuaded German authorities to mandate Bible reading as "the chief instrument of religious instruction in primary schools, [which was] a powerful impetus to the spread of mass literacy." <sup>38</sup>

In more recent times, religion was a prime motivator in establishing U.S. schools run by faith groups – including Quakers, Protestants and Catholics – that educated generations of immigrant families.<sup>39</sup>

<sup>&</sup>lt;sup>38</sup> Gawthrop, Richard and Gerald Strauss. 1984. "Protestantism and Literacy in Early Modern Germany." The Past and Present Society. Gawthrop and Strauss argue that Luther and other Reformation leaders stopped promoting Bible reading in favor of teaching religion through a memorized catechism in order to maintain orthodox interpretations of scripture.

Also see Woodberry, Robert D. 2012. "The Missionary Roots of Liberal Democracy." American Political Science Review. Woodberry writes that other Protestant revival movements brought near universal literacy to other places even earlier than the Pietists in Germany: "The earliest places with near universal literacy (Scandinavia, Iceland, New England, Protestant cantons in Switzerland, Puritan parts of England, and lowland Scotland) ... had Protestant-sponsored literacy campaigns."

It is important to note that the 16th-century Protestant Reformation coincided with two other developments that some experts say were major forces in the spread of literacy. One was the invention of the Gutenberg printing press, which made printed works widely available at a cheap price. See Maag, Karin. 2000. "Education and literacy." In Pettegree, Andrew. "The Reformation World." Maag writes: "Also, an "increasing focus on education and learning as key factors in obtaining a lucrative post" provided a pragmatic, economic impetus for gaining literacy.

39 Although Christian Sunday schools are now usually devoted to religious instruction, their roots lie in the British Sunday school movement started in 1780s. Launched by Christian religious leaders, the schools initially were intended to teach literacy to poor children. Their textbook was the Bible.

Historically, however, Christianity and science often have come into conflict with each other, as illustrated by the 17th century clash between astronomer Galileo Galilei and the Roman Catholic Church, as well as the condemnation by prominent religious leaders of Charles Darwin's 1859 theory of human evolution. The Scopes Monkey trial in 1925 further highlighted the rift between science and some branches of Christianity over the theory of evolution, a contentious relationship that endures even today. 40

In sub-Saharan Africa, meanwhile, scholars describe how religious missionaries during colonial times were the prime movers in constructing educational facilities and influencing local attitudes toward education. These missionary activities, the scholars conclude, have had a long-lasting positive impact on access to schooling and educational attainment levels in the region.

Research by Baylor University sociologist Robert D. Woodberry, for instance, suggests that Protestant missionaries in Africa "had a unique role in spreading mass education" because of the importance they placed on ordinary people's ability to read scripture. As a result, they established schools to promote literacy wherever they went and translated the Bible into indigenous languages. <sup>41</sup>

Harvard University economics professor Nathan Nunn, who contends that education was "the main reward used by missionaries to lure Africans into the Christian sphere," says that in addition to establishing schools, "missionaries may have altered people's views about the importance of education." <sup>42</sup>

Woodberry and Nunn conclude, however, that Protestant and Catholic missionaries had differing results. Except where they were in direct competition with Protestant missionaries, Catholic missionaries concentrated on educating African elites rather than the masses, Woodberry observes. And Nunn notes that Protestant missionaries placed greater stress than Catholics on

<sup>&</sup>lt;sup>40</sup> In 1633, the Roman Catholic Church's Inquisition sentenced Galileo to house arrest for the rest of his life and banned his writings after finding him "vehemently suspect of heresy" for contending that the earth revolved around the sun. The church regarded this view – later accepted as scientific fact – as contrary to Holy Scripture. England's highest-ranking Catholic official, Henry Cardinal Manning, denounced Darwin's views as "a brutal philosophy – to wit, there is no God, and the ape is our Adam." Samuel Wilberforce, the Anglican Archbishop of Oxford and one of the most highly respected religious leaders in 19th-century England, also condemned the theory of evolution by natural selection. The defendant in the Scopes Monkey Trial, high school teacher John Scopes, was convicted of violating a Tennessee law banning the teaching of human evolution in government-funded schools.

<sup>&</sup>lt;sup>41</sup> Woodberry, Robert D. 2012. "The Missionary Roots of Liberal Democracy." American Political Science Review. Woodberrry's principal argument is that the Protestant missionaries helped spread democracy in Africa when they prioritized education and literacy as a means of conversion. "[I]n trying to spread their faith, [they] expanded religious liberty, overcame resistance to mass education and printing, fostered civil society, moderated colonial abuses and dissipated elite power," he writes. "These conditions laid a foundation for democracy."
<sup>42</sup> Nunn, Nathan. 2012. "Gender and Missionary Influence in Colonial Africa." In Akyeampong, Emmanuel, Robert H. Bates, Nathan Nunn and James A. Robinson. 2014. "Africa's Development in Historical Perspective." Also see Nunn, Nathan. 2010. "Religious Conversion in Colonial Africa." American Economic Review: Papers & Proceedings 100.

educating women. As a result, Protestants had more long-term impact on the education of sub-Saharan African women.  $^{43}$ 

#### **Buddhism**

Scholars of Buddhism note that Siddhartha Gautama, the religion's founder, often is called "teacher" because of his emphasis on "the miracle of instruction." He considered learning essential for attaining the Buddhist goal of enlightenment.<sup>44</sup>

"In many ways, Buddhism is particularly dedicated to education because unlike many other religions it contends that a human being can attain his or her own enlightenment ('salvation') without divine intervention," writes Stephen T. Asma, a professor of philosophy at Columbia College Chicago.

Buddhism is "also extremely empirical in its approach, suggesting that followers try the experiment of dharma (i.e., Buddha's Four Noble Truths) for themselves to see if it improves their inner freedom," Asma notes, adding: "Because the philosophy of Buddhism takes this pragmatic approach favoring education and experiment, Buddhism has little to no formal disagreement with science (as evidenced by the Dalai Lama's ongoing collaboration with neuroscientists)."

This theoretical openness to scientific knowledge, however, did not always play out at the practical level within Buddhist communities, Asma contends. "Powerful Buddhist monasteries, especially in China and Tibet, frequently resisted modernization (including science) for fear of foreign influence and threats to entrenched Buddhist power structures," he writes.<sup>45</sup>

Despite this tension between theory and practice, Buddhism has been a major influence on the educational systems of many places, especially India, Sri Lanka, Thailand, Myanmar, Cambodia, Laos and Tibet. From around the fifth century onward, Buddhist monasteries emerged as centers of education, not just for monks but also for laymen. Several monasteries became so large and complex that they are considered prototypes of today's universities. In India, the most famous of these educational centers — Nalanda, in what is now Bihar state — is said to have had 10,000

<sup>&</sup>lt;sup>43</sup> Woodberry, Robert D. 2012. "<u>The Missionary Roots of Liberal Democracy</u>." American Political Science Review. Also see Nunn, Nathan. 2012. "<u>Gender and Missionary Influence in Colonial Africa</u>." In Akyeampong, Emmanuel, Robert H. Bates, Nathan Nunn and James A. Robinson, eds. 2014. "Africa's Development in Historical Perspective."

<sup>&</sup>lt;sup>44</sup> Meshram, Manish. 2013. "Role of Buddhist Education in Ancient India," International Journal of Research in Humanities, Arts and Literature. See also "Buddhist Attitude to Education."

 $<sup>^{45}</sup>$  Asma email correspondence with Pew Research Center. Also, Asma, Stephen T. 2010. "Why I am a Buddhist: No-Nonsense Buddhism With Red Meat and Whiskey."

students from many different countries, and offered courses in what then constituted philosophy, politics, economics, law, agriculture, astronomy, medicine and literature.<sup>46</sup>

In Thailand, monastic schools located in Buddhist temples were the main source of education for male children for many centuries, though they offered primarily religious education. When the Thai government introduced Western-style, secular education around the beginning of the 20th century, it used monastic schools as the vehicle for reaching the wider population. As of the 1970s, "almost 50 per cent of Thailand's primary schools [were] still situated in Buddhist monasteries." Similarly, in Japan the Buddhist monastic education tradition was so influential that one 19th-century scholar of Japan wrote that "Buddhism was the teacher under whose instruction the nation grew up." 48

#### Hinduism

For Hindus, education vanquishes a fundamental source of human suffering, which is ignorance, says Anantanand Rambachan, a professor of religion at St. Olaf College. As a result, education has been highly valued in Hinduism since the religion's inception in ancient times. Hindu scriptures urge adherents to seek knowledge through dialogue and questioning, and to respect their teachers. "Learning is the foundational stage in the Hindu scheme of what constitutes a good and a meaningful life," Rambachan says. Since ignorance is regarded as a source of human suffering, he adds, "the solution to the problem of ignorance is knowledge or learning."

The Hindu esteem for education is reflected in different ways. To start with, the most authoritative Hindu scriptures are the Vedas, a word that comes from the Sanskrit root word *vd*, which means knowledge, Rambachan says.

University of Florida religion professor Vasudha Narayanan says Hindus regard two types of knowledge as necessary and worthwhile. The first, *vidya*, is everyday knowledge that equips one to earn a decent and dignified life. The second, *jnana*, is knowledge or wisdom that brings awareness of the divine. This is achieved by reading and meditating on Hindu scriptures.

<sup>&</sup>lt;sup>46</sup> Meshram, Manish. 2013. "Role of Buddhist Education in Ancient India," International Journal of Research in Humanities, Arts and Literature.

<sup>&</sup>lt;sup>47</sup> Watson, JKP. "The Monastic Tradition of Education in Thailand." International Journal of the History of Education. See also Cleary, Stephen. March 14, 2009. "Buddhist Schools Play Vital Role in Rural Thailand." South China Morning Post.

<sup>&</sup>lt;sup>48</sup> Chamberlain, Basil H. 1891. "Things Japanese: Being Notes on Various Subjects Connected with Japan for the Use of Travellers and Others." Also see Swarup, Ram. 2000. "The Hindu View of Education." In "On Hinduism: Reviews and Reflections." Swarup writes of Buddhism in Japan: "A.S. Geden ... further adds that 'In a larger sense of these terms, Japan owes more educationally to Buddhist influence and instruction than perhaps any other nation, with the possible exception of the Burmese.' When Europe forced its way into Japan, it found that most Japanese, men as well as women, could read and write. They were educated by Buddhist monks in their 'temple-huts', known as *tera-koya*. Attendance at these schools was entirely voluntary. There were also schools open for girls, which were, it may be assumed, always under the direction of the nuns."

Historically, the caste system in India was a huge barrier to the spread of mass literacy and education. Formal education was reserved for elite populations. But in the seventh and eighth centuries, the vernacular language of Tamil began to be used for religious devotion in southern India, which led to greater access to all kinds of knowledge for a wider group of people. "That is when you start having men and women of different castes composing poems of praise for God, poems that are still recited in temple liturgy today," Narayanan says.

Later, in the 18th and 19th centuries, both secular and religious education came to be seen by Hindus as a universal right, and it gradually began to be extended to all members of the faith. Still, today, the vast majority of Hindus (98%) live in developing countries — mainly India, Nepal and Bangladesh — that have struggled to raise educational standards in the face of widespread poverty and expanding populations, which helps explain why Hindus have relatively low educational attainment compared with other major religious groups.

#### **Judaism**

High levels of Jewish educational attainment may be rooted in ancient religious norms, according to some recent scholarship. The Torah encourages parents to educate their children. This prescription was not mandatory, however, until the first century.

Sometime around 65 C.E., Jewish high priest Joshua ben Gamla issued a religious decree that every Jewish father should send his young sons to primary school to learn to read in order to study the Torah. A few years later, in the year 70, the Roman army destroyed the Second Temple following a Jewish revolt. Temple rituals had been a pillar of Jewish religious life. To replace them, Jewish religious leaders emphasized the need for studying the Torah in synagogues. They also gave increased importance to the earlier religious decree on educating sons, making it a compulsory religious duty for all Jewish fathers. Over the next few centuries, a formal school system attached to synagogues was established.

These developments signaled "a profound transformation" of Judaism, according to economic historians Maristella Botticini of Bocconi University and Zvi Eckstein of the Interdisciplinary Center Herzliya. Judaism became, they write, "a religion whose main norm required every Jewish man to read and to study the Torah in Hebrew and to send his sons from the age of 6 or 7 to primary school or synagogue to learn to do so. … Throughout the first millennium, no people other than the Jews had a norm requiring fathers to educate their sons."

<sup>&</sup>lt;sup>49</sup> Botticini, Maristella and Zvi Eckstein. 2012. "The Chosen Few: How Education Shaped Jewish History, 70-1492."

This religious obligation meant that male Jews, to a greater degree than their contemporaries, were literate, which gave them an advantage in commerce and trade. Jewish scholarship was enhanced in the early Middle Ages, beginning in the late sixth century, by the emergence of Talmudic academies of Sura and Pumbedita in what is now Iraq. In the late Middle Ages, centers of Jewish learning, including the study of science and medicine, emerged in what is today northern Spain and southern France.

Until the early 19<sup>th</sup> century, however, most education of Jewish boys was primarily religious. That began to change with the *Haskalah*, the Jewish Enlightenment movement initiated by East and Central European Jews.

This intellectual movement sought to blend secular humanism with the Jewish faith and to encourage openness to secular scholarship among Jews. It revived Hebrew as a language of poetry and literature, which reflected the reformers' appreciation of their Jewish religious heritage. At the same time, they were strong proponents of reforming Jewish education by including secular subjects, such as European literature and the natural sciences. This educational project often brought the reformists into conflict with more orthodox Jewish religious leaders. <sup>50</sup>

<sup>&</sup>lt;sup>50</sup> Sachar, Howard M. 2005. "A History of the Jews in the Modern World."

# Contemporary religious norms and doctrines, including teachings on gender

Scholars also have explored how religions' cultural norms and doctrines may affect educational attainment by determining which subjects are taught in schools, how much emphasis is placed on religious knowledge versus secular education, and if there is gender parity in educational attainment.<sup>51</sup>

There has been considerable research on ways in which religious teachings on gender roles may be linked to women's educational attainment. Some scholars have noted that from the Reformation onward, Protestant groups encouraged educating women, with effects that still resonate today. "Martin Luther urged each town to have a girls' school so that girls would learn to read the Gospel, evoking a surge of building girls' schools in Protestant areas," write economic professors Sascha O. Becker, of the University of Warwick, and Ludger Woessmann, of the University of Munich. Looking at 1970 data for European countries, the two conclude that countries with higher shares of Protestants were "clearly associated" with greater parity between men and women in years of education. 52

Woodberry and Nunn, experts on missionary activity in sub-Saharan Africa, both highlight the Protestant missionaries' insistence that girls and women be educated. In the missionaries' view, "everyone needed access to 'God's word' — not just elites," writes Woodberry. "Therefore, everyone needed to read, including women and the poor." <sup>53</sup>

By contrast, cultural and religious norms in Muslim societies often hinder women's education. Lake Forest College political scientist Fatima Z. Rahman examines how family laws in Muslimmajority countries can affect women's higher education. She finds that when a country's family laws closely conform to a strict version of sharia, or Islamic law, the share of women in higher education is smaller. This is not the case when family laws are based on more general Islamic precepts. The stricter laws "impose a limit on physical mobility which is typically required for pursuing higher education or a career," Rahman concludes. 54 There are signs that this could be

<sup>&</sup>lt;sup>51</sup> Melina Platas, assistant professor of political science at New York University-Abu Dhabi, notes religion's impact on curricula in her 2016 dissertation, "The Religious Roots of Inequality in Africa": "The doctrine espoused by religious organizations can serve to increase or decrease the demand for certain types of education or certain skills among their constituents," she writes.

<sup>&</sup>lt;sup>52</sup> Becker, Sascha O. and Wößmann, Ludger. 2008. "<u>Luther and the Girls: Religious Denomination and the Female Education Gap in 19<sup>th</sup> Century Prussia</u>." Discussion Paper No. 3837. The Institute for the Study of Labor in Bonn.

<sup>&</sup>lt;sup>53</sup> Woodberry, Robert D. 2012. "<u>The Missionary Roots of Liberal Democracy</u>." American Political Science Review. Also see Nunn, Nathan. 2012. "<u>Gender and Missionary Influence in Colonial Africa</u>." In Akyeampong, Emmanuel, Robert H. Bates, Nathan Nunn and James A. Robinson, eds. 2014. "Africa's Development in Historical Perspective."

<sup>&</sup>lt;sup>54</sup> Rahman, Fatima Z. 2012. "Gender Equality in Muslim-Majority States and Shari'a Family Law: Is There a Link?" Australian Journal of Political Science.

changing, however, as <u>women make gains in higher education in some conservative Muslim</u> <u>countries in the Gulf Cooperation Council</u> – including Saudi Arabia.

Some academic studies have probed ways a particular religion's attitude toward secular knowledge — whether it is seen as a necessity for spiritual growth or as a distraction from achieving personal salvation — can affect the pursuit of formal education. In this regard, sociologists Darren E. Sherkat, of Southern Illinois University Carbondale, and Alfred Darnell, a visiting lecturer at Washington University in St. Louis, find that "fundamentalist beliefs and conservative Protestant affiliation both have significant and substantial negative influences on educational attainment." Young followers of fundamentalist religious leaders, they add, "will likely limit their educational pursuits." They suggest that Christians who regard the Bible as inerrant — that is, as the error-free word of God — are less likely to enroll in college preparatory classes and "have significantly lower educational aspirations than other respondents." <sup>55</sup>

While Darnell and Sherkat focus their research on Christians in the United States, their observations about how religious attitudes toward secular knowledge may affect attainment offer possible insights into attainment patterns seen in other religions and other parts of the world.

Some scholars, however, hypothesize that higher levels of religious observance and engagement produce *greater* educational attainment. They posit that religious involvement enhances an individual's social capital in the form of family and peer networks, which promote educational success. University of Texas sociologists Chandra Muller and Christopher G. Ellison, in a study of U.S. teenagers, find that there is "a positive influence of religious involvement on several key academic outcomes," such as obtaining a high school diploma. <sup>56</sup> Similarly, in her study of women raised as conservative Protestants, University of Illinois economics professor Evelyn L. Lehrer observes that those who frequently attended religious services during adolescence completed one more year of schooling than their less observant peers. <sup>57</sup>

Strong social capital also is proposed by Paul Burstein, a sociologist at the University of Washington, as a topic needing further research to explain the high educational attainment of

<sup>&</sup>lt;sup>55</sup> Darnell, Alfred and Darren E. Sherkat. 1997. "The Impact of Protestant Fundamentalism on Educational Attainment." American Sociological Review. A related study by Louisiana State University sociologist Samuel Stroope et. al finds that biblical literalism is "negatively associated with college completion." See Stroope, Samuel, Aaron B. Franzen and Jeremy E. Uecker. 2015. "Social Context and College Completion in the United States: The Role of Congregational Biblical Literalism." Sociological Perspectives.

from the National Education Longitudinal Study of 1988." Sociological Focus. Sociologist Mark D. Regnerus at the University of Texas at Austin finds similar results, writing that youths' "involvement in church activities has a positive relationship with both educational expectations and math and reading achievement." He finds that this holds true across income levels. "Shaping Schooling Success: Religious Socialization in Educational Outcomes in Metropolitan Public Schools." Journal for the Scientific Study of Religion.

<sup>&</sup>lt;sup>57</sup> Lehrer, Evelyn L. 2004. "Religiosity as a Determinant of Educational Attainment: The Case of Conservative Protestant Women in the United States." Review of Economics of the Household.

Jews. Research focused on the social capital approach, Burstein argues, provides "a framework for showing how Jewish religious beliefs and practices, and the organizations created to sustain them, help Jews acquire skills and resources useful in the pursuit of secular education and economic success." <sup>58</sup>

Burstein argues that previous studies looking at "beliefs or behaviors that are specifically Jewish," or at Jewish "marginality" – either from traditional Judaism or Western society in general – have not offered complete explanations for Jewish educational success.

While this chapter looks at the impact of religion on education, there are also theories on *education's impact on religion* – perhaps most notably, that high educational attainment could potentially lead to a shedding of religious identity. If this is true, one might expect higher percentages of religiously unaffiliated people in parts of the world with high educational attainment. A <u>sidebar in Chapter 3</u> explores data relating to this question, finding mixed results.<sup>59</sup>

<sup>&</sup>lt;sup>58</sup> Burstein, Paul. 2007. "Jewish Educational and Economic Success in the United States: A Search for Explanations." Sociological Perspectives.

<sup>&</sup>lt;sup>59</sup> Some studies suggest that religion and education are inversely related. For example, a 2015 study of education's effect on Turkish women found a reduction in forms of religious expression (as measured by wearing a headscarf, praying regularly, attending Quranic studies and fasting) in women who had more years of schooling. Gulesci, Selim and Erik Meyersson. "'For the Love of the Republic' Education, Religion and Empowerment." Working paper.

A second study of Canadians in 2011 finds, "An additional year of education leads to a 4-percentage-point decline in the likelihood that an individual identifies with any religious tradition." The author contends "that increases in schooling could explain most of the large rise in non-affiliation in Canada in recent decades." Hungerman, Daniel M. 2011. "The Effect of Education on Religion: Evidence from Compulsory Schooling Laws." Journal of Economic Behavior & Organization. However, in chapter 3 we demonstrate that the relationship between affiliation and education varies by country and that there are more countries in which young affiliated people have more education than there are countries in which young unaffiliated people have the advantage.

# The puzzle of sub-Saharan Africa's attainment gap

As noted <u>earlier in this report</u>, the difference between Christian and Muslim educational attainment in sub-Saharan Africa is among the largest intraregional gaps in the world. The region's rapid projected population growth – both Christians and Muslims in sub-Saharan Africa are expected to double in number by 2050 – suggests that determining the reasons for the attainment gap will only grow in importance.  $^{60}$ 

Some scholars suggest that the source of the Christian-Muslim attainment gap is rooted in the location of Christian missionary activity during colonial times. Missionary-built educational facilities were often located in what became heavily Christian areas rather than predominantly Muslim locales. For example, while school establishment was widespread as a result of missionary activity in many regions under British colonial rule, in northern Nigeria, which is now overwhelmingly Muslim, British colonial administrators discouraged missionary activity, including development of missionary schools. Historic differences between colonial policy and missionary activity in northern and southern Nigeria are likely an important factor in the present-day Christian-Muslim education gap in Nigeria. Each of the Christian-Muslim education gap in Nigeria.

Some Muslims, in any case, feared that missionary schools would attempt to convert their children to Christianity.  $^{63}$ 

<sup>&</sup>lt;sup>60</sup> Population estimates are from the 2015 Pew Research Center report "The Future of World Religions: Population Growth Projections, 2010-2050."

Nunn, Nathan. 2010. "Religious Conversion in Colonial Africa." American Economic Review: Papers and Proceedings 100. Also see
 Woodberry, Robert D. 2004. "The Shadow of Empire: Christian Missions, Colonial Policy, and Democracy in Postcolonial Societies."
 For discussion, see Frankema, Ewout H.P. 2012 "The origins of formal education in sub-Saharan Africa: was British rule more benign?"
 European Review of Economic History. Also see Thurston, Alex. 2016. "Colonial Control, Nigerian Agency, Arab Outreach, and Islamic Education in Northern Nigeria, 1900-1966" in Launay, Robert, ed. "Islamic Education in Africa: Writing Boards and Blackboards." Also see Melina Platas. 2016. "The Religious Roots of Inequality in Africa." Dissertation.

<sup>&</sup>lt;sup>63</sup> See Moore, Leslie C. 2006. "<u>Learning by Heart in Qur'anic and Public Schools in Northern Cameroon</u>." Social Analysis. Moore writes of Cameroon: "Public schooling is believed by many Muslims to interfere with the social, moral, and spiritual development of their children. Time spent in public school is time not spent in Qur'anic study and in learning tasks and responsibilities from one's father or mother. Moreover, parents are concerned that their children do not learn much of any use at school, and that much of what they *do* learn — *nasaaraaji* (things of the whites) — is counter to the norms of Islam and Fulbe culture."

As a result, Christians gained an educational edge over Muslims that lasted decades. Writes Nunn: "The presence of Christian missionaries, particularly Protestant missionaries, has been shown to be strongly correlated with increased educational attainment and the effects appear to persist for many generations." <sup>64</sup>

In his study of Christian versus Muslim primary school enrollment, Holger Daun, an expert in educational policy at Stockholm University, argues that religion counts as much as economic factors in determining attainment. He finds no definitive explanation for the gap, but posits that one factor may be that religious schools set up by local Islamic leaders are viewed as an alternative to government schools. Some of the Islamic schools follow the curricula of state schools, while others teach only religious subjects. <sup>65</sup>

Melina Platas, an assistant professor of political science at New York University-Abu Dhabi, argues that the Christian-Muslim attainment gap, particularly in Muslim-majority areas, is only partly explained by poverty and access to schools. Surveys she conducted in Malawi found that Muslims and Christians express similar demands for formal education and do not perceive a trade-off between religious and formal schooling that would affect educational attainment. <sup>66</sup>

She offers two alternative explanations for further research. One, she writes, is that parents with low levels of education are less able to help their children attend and succeed in school "even if they have similar expectations for the economic returns of schooling as more educated parents." This intergenerational pattern may be stronger in Muslim-majority areas, where many parents have low educational attainment.

<sup>&</sup>lt;sup>64</sup> Nunn, Nathan. 2014. "Gender and Missionary Influence in Colonial Africa." In Akyeampong, Emmanuel, Robert H. Bates, Nathan Nunn and James A. Robinson. 2014. "Africa's Development in Historical Perspective." Melina Platas also writes in her 2016 dissertation, "The Religious Roots of Inequality in Africa": "Seeking to avoid unrest that may have come from proselytization among Muslim populations, colonial administrators were not only more likely to prevent missionaries from establishing churches but also Christian-founded schools and health facilities in areas with Islamized political institutions as compared to those without." At the same time, Platas finds some evidence for a contradictory trend: That Muslim-run schools increased when missionary-built schools appeared in or close to Muslim-majority areas. "There is some evidence," she writes, "that Muslims responded to missionary investments by building their own schools, but these remained relatively few in number throughout the colonial period."

In a 2013 conference paper, "Muslim Education in sub-Saharan Africa," Platas writes that in the Buganda kingdom of Uganda, the degree to which Muslims put resources in educating their children during colonial times depended on the type of political structure prevailing in their ethnic communities. Those who had a more centralized, hierarchical system were more effective at creating educational facilities and advancing attainment.

<sup>65</sup> Daun, Holger. 2000. "Primary Education in sub-Saharan Africa – a moral issue, an economic matter, or both?" Comparative Education.
66 Some studies, however, suggest that many Muslim parents prefer their daughters attend traditional Islamic schools, because they preserve traditional female roles and may preserve religious values (See Ogunjuyigbe, Peter O. and Adebayo O. Fadeyi. 2002. "Problems of Gender Differentials in Literacy and Enrolment Among the Yorubas of South- West Nigeria." Journal of Social Sciences. Indeed, a 2010 study of women in three villages in Nigeria finds that a Quranic education is more common than other types of school among young Muslim women. See Adiri, Farouk, Habiba Ismail Ibrahim, Victor Ajayi, Hajaratu Umar Sulayman, Anita Mfuh Yafeh and Clara L. Ejembi. 2010. "Fertility Behaviour of Men and Women in Three Communities in Kaduna State, Nigeria." African Journal of Reproductive Health.

Platas suggests that a second possible explanation, particularly for Muslim-majority areas, is that some Muslims may believe that secular government schools are Christian-oriented. As during the colonial period, therefore, they may fear that attending these schools poses a threat to their religious identity and to the practice of their faith.<sup>67</sup>

Sociologist Nicolette D. Manglos-Weber of Kansas State University offers a similar insight based on her research in 17 sub-Saharan African countries, finding that "religious identity shapes the odds of completing primary school."

"At both national and local levels," she writes, "there is an association between Christian groups and the state, which potentially discourages those of other religions from seeing state-sponsored schools as legitimate."

As a result, Muslims may not favor state-sponsored schooling for their children to the same degree that Christians do, preferring instead to send them to Islamic religious schools. Muslim participation is even lower in countries that have mandatory teaching of religion in government primary schools, Manglos-Weber adds. She characterizes the perceived lack of legitimacy as a "legacy of the historical links between Christian missionization and the colonial project." <sup>68</sup>

A major challenge for African nations is that their populations have been rapidly expanding even as their governments struggle to allocate resources for universal education. In Ivory Coast, for example, anthropologist Robert Launay contends that an economic boom following independence favored those who had been educated in the colonial era and convinced many Muslim parents of the economic benefits of state schooling. However, he laments, "As the economy contracted, the population continued to expand, so that it would have been necessary to continue an aggressive policy of building schools and hiring teachers simply to maintain the quality of universal state education. ... [I]n the face of mounting debts, Côte d'Ivoire was obliged by the international community to embark on a policy of structural adjustment, and in particular to rein in government spending. Under such constraints, expanding the education system was out of the question." <sup>69</sup>

<sup>&</sup>lt;sup>67</sup> Platas, Melina. 2016. "The Religious Roots of Inequality in Africa." Dissertation. The perception of government schools with Western-style curricula being seen as a tool for conversion of Muslim students also is discussed in Csapo, Marg. 1981. "Religious, Social and Economic Factors Hindering the Education of Girls in Northern Nigeria." Comparative Education.

<sup>&</sup>lt;sup>68</sup> Manglos-Weber, Nicolette. 2016. "Identity, Inequality and Legitimacy: Religious Differences in Primary School Completion in sub-Saharan Africa." Forthcoming in the Journal for the Scientific Study of Religion.

<sup>69</sup> Launay, Robert. 2016. "Introduction: Writing boards and blackboards" in Launay, Robert, ed. 2016 "Islamic education in Africa: Writing boards and blackboards."

In sum, scholars are still exploring the reasons behind differences in educational attainment between Muslims and Christians in sub-Saharan Africa. The gaps appear to be partly a result of historical developments, especially Christian missionary activity and colonial policy. A host of contemporary economic, social, cultural and religious factors may also play a role.

# **Appendix A: Methodology**

This appendix describes the statistical methods used to measure educational attainment by religion, including average years of schooling. It then provides an overview of the data sources used in the report. (A full list of data sources used for each country can be found in <a href="Appendix B.">Appendix B.</a>) The appendix continues with a discussion of how religious schools were classified in this report, and a description of some challenges associated with measuring change in educational attainment across generations. Estimation and weighting procedures also are discussed. Finally, a list of countries included in each region is included at the end of this appendix.

## **Measuring educational attainment**

This report measures educational attainment but it does not measure quality of education. It uses four broad levels of educational attainment: (1) *no formal schooling* (less than one year of primary school), (2) *primary education* (completion of at least one grade of primary school), (3) some *secondary education* (no degree beyond high school) and (4) *post-secondary education* (earning some kind of college, university or vocational degree beyond high school) also referred to in this report as "higher education."

These four categories of attainment are based on UNESCO's International Standard Classification of Education (ISCED), 1997 revision. ISCED attempts to make education statistics comparable across countries by matching country-specific mappings of educational attainment categories — including vocational or technical degrees as well as apprenticeship programs — to their standardized international equivalents. This process adjusts for differences in national educational systems around the world. ISCED educational categories are closely related to gradations in national educational programs but also take into account additional criteria such as starting age, duration of schooling, and entrance requirements.<sup>1</sup>

This study focuses on shares of population with *no formal schooling* and *post-secondary education* as measures of educational attainment. A third measure used is *average years of schooling*, which has the advantage of expressing the level of educational attainment in the population in a single number. For this reason, it is a widely used measure in cross-country comparisons of educational attainment. Average years of schooling (or *mean* years of schooling,

<sup>&</sup>lt;sup>1</sup> This report relies on 1997 International Standard Classification of Education (ISCED) revision and the corresponding mapping published by UNESCO. At the time of data collection for this report, the 2011 ISCED revision was not implemented yet and corresponding mappings were not available. ISCED is widely used by international organizations and research institutions, such as the World Bank and Eurostat. ISCED 1997 distinguishes between six different levels of education, which were collapsed into four levels for this study, both for simplicity and because of data constraints in some countries. Our four educational levels translate the same way into both ISCED 1997 and 2011 revisions.

MYS) is calculated as the weighted average of the number of years of school completed by adults who are at least 25 years old.

To compute MYS, one has to know how many years a person spent in school when graduating from a given level. The computation is complicated by two issues: First, educational systems change over time, so the standard durations of schooling change across cohorts depending on when they studied and graduated; second, students with the same level who graduated from different schools (for example, vocational schools or apprenticeship trainings) needed different number of grades to graduate. To account for these factors, this report relied on prior work by researchers at the

<b>Categories</b> No formal schooling	ISCED 1997 level No level or ISCED 0, Grade 1 of ISCED 1 not completed	<b>Definition</b> Persons who have never attended school; persons attending first grade of primary schooling at time of survey; persons attending adult literacy courses at time of survey; khalwa (first level of traditional Quranic schools)
Primary education	Incomplete ISCED 1, Completed ISCED 1, Incomplete ISCED 2	Persons attending last grade of ISCED 1 at time of survey; persons with unknown number of grades/years at ISCED 1; traditional Quranic schools above khalwa; completed last grade of ISCED 1 or grades below the last grade of ISCED 2; persons attending last grade of ISCED 2 at time of survey; persons with unknown number of grades at ISCED 2
Secondary education	Completed ISCED 2 and/or ISCED 3, Incomplete ISCED 4 or 5	Completed last grade of ISCED 2 or grades below last grade of ISCED 3; persons attending last grade of ISCED 3 at time of survey; persons who indicated an unknown number of grades at ISCED 3; completed last grade of ISCED 3; completed number of grades or years below the standard duration of ISCED 4 or 5; persons who indicated an unknown number of grades at ISCED 4 or 5
Post-secondary education	Completed ISCED 4, 5, and/or 6	Persons holding degrees corresponding to ISCED 4, 5B, 5A, and 6; persons who have completed number of years or grades corresponding to standard duration of ISCED 4 or 5B programs

Note: Based on Table 9.2 in Lutz, Wolfgang, William P. Butz and Samir KC, eds. 2014. "World Population and Human Capital in the 21st Century." For more information on ISCED categories see http://www.uis.unesco.org/Education/ISCEDMappings/Pages/default.aspx "Religion and Education Around the World"

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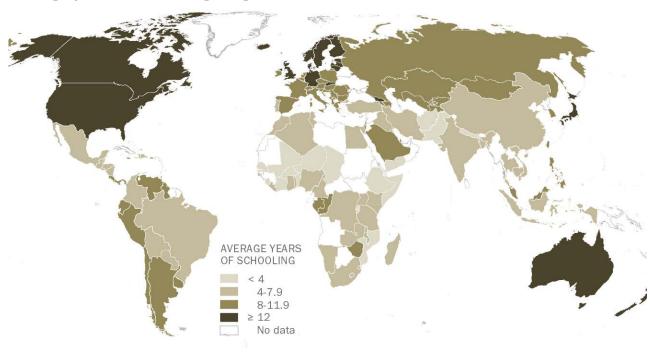
Wittgenstein Centre for Demography and Global Human Capital (WIC). In their work estimating current and future levels of educational attainment around the world, WIC researchers developed a series of procedures to account for country-specific educational systems as well as changes in these systems over time. <sup>2</sup> <sup>3</sup> Following this example, we use standard duration of schooling corresponding to the ISCED 1997 A levels in country-specific mappings, and apply cohort-specific duration to account for changes of education systems over time.

<sup>&</sup>lt;sup>2</sup> Lutz, Wolfgang, William P. Butz and Samir KC, eds. 2014. "World Population and Human Capital in the 21st Century."

<sup>&</sup>lt;sup>3</sup> Potančoková, Michaela, Samir K.C. and Anne Goujon. 2014. "Global Estimates of Mean Years of Schooling: A New Methodology." International Institute for Applied Systems Analysis.

MYS can be computed from the data organized into educational levels, or from detailed information of level, type of school completed and number of years or grades completed at a given level. When individual-level data on both level and grades were available, they were used to calculate average years of schooling for each religious group and for each of the three age cohorts examined in this study. This option was available in 53 countries.

# Average years of schooling for general adult population



Note: Based on adults ages 25 and older as of 2010 (or latest year available). Source: Pew Research Center analysis. "Religion and Education Around the World"

When individual-level data on years of schooling were unavailable, we used data organized into educational levels to estimate MYS. We used data organized into six education categories<sup>4</sup> (instead of the four presented in the report) to estimate MYS by procedures developed at WIC. We applied standard durations of schooling corresponding to ISCED 1997 A levels, and simple models to compute average years of primary schooling for those with incomplete primary schooling.<sup>5</sup> The standard durations as well as average years of schooling at a given level were identical across religious groups. We assume that average duration of post-secondary studies was four years, which accounts for the shorter duration of associate and technical degree programs (typically two years) as well as the much longer duration of master's and Ph.D. programs.

#### Data

Data on educational attainment in 151 countries were collected from a variety of sources. For 74 countries, censuses that measured both religion and education were used as the main data source. In most cases, the censuses were conducted around 2010. If no census was carried out during this period, a census from an earlier period, around the year 2000, was used. For many pre-2010 census countries, estimates of the educational attainment of the youngest generation (born 1976-1985) could not be calculated because most cohort members had not reached age 25 (for more detail on generational analysis, see below). Countries with census data typically have estimates of educational attainment for a wider range of religious groups than surveys, which have smaller sample sizes. However, in most of the remaining countries, including China, the United States and France, religion is not measured in the census, so additional sources must be used.

For 57 countries, the best recent nationally representative survey was used as the primary data source. Only surveys from well-established and reliable sources were used, for example the Demographic and Health Survey (DHS), Multiple Indicator Cluster Survey (MICS), Latinobarometer, European Social Survey (ESS), International Social Survey Program (ISSP) and surveys done by a national statistics office or well-known university. For a full list of data sources used for each country, see <a href="Data Sources by Country">Data Sources by Country</a>.

In some cases, data from different years of the same survey (e.g., Latinobarómetro 2000-2010) were merged in order to have large enough sample sizes to make reliable estimates of educational attainment by religion and birth cohort. In most instances, survey data yielded estimates of education by religion for major religious groups in a country. When religious groups were too

<sup>&</sup>lt;sup>4</sup> No education, some primary, completed primary, lower secondary, upper secondary and post-secondary.

<sup>&</sup>lt;sup>5</sup> Potančoková, Michaela, Samir K.C. and Anne Goujon. 2014. "Global Estimates of Mean Years of Schooling: A New Methodology." International Institute for Applied Systems Analysis.

<sup>&</sup>lt;sup>6</sup> An initial pilot study of data available for analyzing educational attainment by religion was funded in part by European Research Council Grant ERC-2009-StG 241003-COHORT.

small to make reliable estimates, different data sources were used or combined to generate estimates or an indirect method of estimation was applied.

For an additional 20 countries, data on educational attainment by religion was not available, but at least 95% of the total population identified with one religious group (based on Pew Research Center's 2015 report "The Future of World Religions: Population Growth Projections, 2010-2050"). In these instances, values available for the general population, often from censuses, were applied to the majority religious group. Many of these

# Data coverage by religious group

	Ages 25 and older		Generational analysis	
	# of countries with data	% of group's global pop.	# of countries with data	% of group's global pop.
General Population	151	95%	130	87%
Christians	124	91	105	76
Muslims	106	92	82	87
Unaffiliated	103	97	76	91
Buddhists	29	89	23	72
Hindus	27	99	21	99
Jews	24	89	17	85

Note: Generational analysis restricted to countries with complete data on all three generations of adults.

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country-level estimates are based on 2010 educational attainment estimates taken from population projections by age, sex and education carried out by researchers at the WIC.<sup>7</sup>

Finally, among these 20 countries, the data for Muslims in Bahrain, Kuwait, Saudi Arabia and Qatar reflect only educational attainment for citizens of these Gulf countries. Educational attainment of citizens is used as a proxy for Muslim attainment because citizens overwhelmingly identify as Muslim. Although these countries also have large non-citizen populations, including Muslims and non-Muslims, breakdowns of educational attainment by religion of the non-citizen populations are not available.

Source: Pew Research Center analysis.

<sup>&</sup>quot;Religion and Education Around the World"

Wittgenstein Centre for Demography and Global Human Capital is a collaboration between IIASA, Vienna Institute of Demography at Austrian Academy of Science and University of Economics and Business (WU) in Vienna. WIC projections, including the data used in this report (version 1.2), are available at <a href="http://www.oeaw.ac.at/fileadmin/subsites/Institute/VID/dataexplorer/index.html">http://www.oeaw.ac.at/fileadmin/subsites/Institute/VID/dataexplorer/index.html</a> and are published in Lutz, Wolfgang, William P. Butz and Samir KC, eds. 2014. "World Population and Human Capital in the 21st Century."

## Religious schools and 'formal schooling'

Education in religious schools that conform to state or government educational standards and requirements and teach both secular and religious subjects generally is categorized as "formal schooling" in this study. This category includes, for example, education received in Quaker and Catholic schools, home schooling in the United States and education in some modern Islamic schools (*madrasas*). Quranic schools that are integrated into the national education system and follow an official curriculum of secular subjects, as well as religious education, also are categorized as "formal schooling" for this study.<sup>8</sup>

Religious schools that do not offer a secular curriculum, however, are, in principle, not counted as "formal schooling" in this study. They include Christian Sunday schools and Quranic schools that focus only on Islamic religious education. In sub-Saharan Africa, some Quranic schools focus on training students to recite the Quran in Arabic, which often is not their native language. Students of these schools often do not acquire basic literacy and numeracy skills. People whose only education is in the first level of traditional Quranic schools (*khalwa*) are included in the "no formal education" category.

Jewish education in religious schools (such as a *yeshiva*) that do not grant degrees (most do not) is not included in the counts in this report. Since yeshiva education is primarily undertaken by men, if it were included in these estimates, the average years of schooling for Jewish men would rise relative to Jewish women and the overall average years of schooling for Jews would also increase.<sup>10</sup>

### Measuring religious affiliation

Estimates of the size and share of religious groups in every country as of 2010 come from Pew Research Center's 2015 report, "The Future of World Religions: Population Growth Projections, 2010-2050." That report has extensive detail and documentation on how religious groups were classified and counted.

This report relies on the same methodology to measure religious affiliation. That is, respondents in every census or survey used were asked to self-identify with a religion. This measure of affiliation is sociological rather than theological. That is, it includes people who hold beliefs that

<sup>&</sup>lt;sup>8</sup> In countries such as Nigeria and Mali, data sources distinguish between Quranic schooling and integrated Quranic schooling that includes secular curricula. In Nigeria, 7% of Muslim adults age 25 and older have attended Quranic school and an additional 10% have attended Quranic integrated schools.

<sup>&</sup>lt;sup>9</sup> How well this distinction is captured varies across data sources. Due to variation across sources, this report is not able to quantify the share of adults who have received informal religious education.

<sup>&</sup>lt;sup>10</sup> According to Pew Research Center analysis of 2010-2014 Israeli Social Survey data, 11% of Jewish Israeli men ages 25 and older have ever attended yeshiva – of those who attended yeshiva, 58% attended for six or more years (or 7% of all Jewish men in Israel).

may be viewed as unorthodox or heretical by others who claim the same religion. It also includes people who do not regularly practice the behaviors prescribed by their religion, such as those who seldom pray or attend worship services.

Respondents were grouped into six major religious categories: Christians, Muslims, Hindus, Buddhists, Jews and the religiously unaffiliated, a category that includes those who identify as atheist, agnostic, or having no religion in particular. This study did not includes respondents who identified as members of folk religions (such as African traditional religions, Chinese folk religions, and Native American and Australian aboriginal religions) and other small religious groups (such as Sikhism, Taoism, Jainism, Shintoism, and the Baha'i faith) due to small sample size and inconsistent measurement across countries.

### **Generational analysis**

This report presents estimates of educational attainment for the overall adult population ages 25 and older, as well as for three different generations of the adult population. The oldest generation includes adults born between 1936 and 1955 (ages 55 to 74 in 2010); the middle generation born between 1956 and 1975 (ages 35 to 54 in 2010), and the youngest generation born between 1976 and 1985 (ages 25 to 34 in 2010).

The rationale for estimating educational attainment among adults at least 25 years old is that at this age, most adults are likely to have reached their highest level of educational attainment. In some countries, measuring educational attainment among younger adults ages 18 to 24, for instance, could be potentially misleading because many in this age cohort are still in school.

The 151 countries in this study include 95% of the global population of adults 25 and older, as of 2010. For religious groups, the countries with available data represent at least 89% (for Buddhists and Jews) and as much as 99% (for Hindus) of their global population. This study has generational data for 130 countries, representing 87% of the world's population age 25-74 in 2010. For religious groups, the countries with available generational data represent at least 72% (for Buddhists) and as much as 99% (for Hindus) of their global population.

Comparing older and younger generations of adults provides an important look at how a religious group's educational attainment has changed in recent decades. However, this generational analysis of educational change should be interpreted with some caution. Many countries have immigration policies that privilege younger, highly educated immigrants. As a result, the youngest generations in this study may include a larger share of new immigrants. Migration of highly skilled

immigrants could also result in lower estimates of attainment among those left behind in sending countries (i.e., "brain drain").

In addition, educational attainment affects mortality in that more highly educated adults typically live longer than less-educated adults in many countries. This could make the oldest generation in this report (ages 55 to 74 in 2010), appear more highly educated than if their attainment was measured thirty years ago when they were younger and the less-educated members of the cohort were still alive. (Members of the study's oldest generation were between the ages of 25 and 44 in 1980.) For this reason, estimates of the educational changes described across generations are likely to be conservative estimates.

In countries for which the main source of data was a survey, the number of survey respondents was often too small to calculate reliable estimates of educational attainment among minority religious groups for each generation. In addition, estimates for some countries are based on census data collected prior to 2010, which meant that some members of the youngest generation (born 1976 to 1985) were younger than age 25 at the time of data collection. Because substantial shares of adults younger than 25 were still enrolled in school in many countries, only data on generational members who were at least 25 years old were used to create estimates for the youngest generation in countries with pre-2010 data. For example, in Iran, where the main source of data was the 2006 census, the youngest generation in this study only includes adults born between 1976 and 1981 (ages 25 to 30 in 2006). For a few additional countries with data collected prior to 2003, educational estimates of the youngest cohort were not calculated because too few respondents were ages 25 and older.

A different procedure was used to calculate educational attainment of the youngest cohort in Israel. In contrast to their peers in the United States and Europe, most men and women in Israel graduate from college at much older ages. This is due to a combination of factors, including mandatory military service for most young adults following secondary school. Therefore, estimates of secondary schooling in Israel's youngest cohort are based on adults ages 30 to 34 in Israel's 2008 census.<sup>11</sup>

The analysis of generational change at the global, regional, and country levels relied on data only from those countries for which complete data on all three generations was available -130 countries in total.

<sup>&</sup>lt;sup>11</sup> Data on educational attainment by religion for Israel in this report comes from 2008 census tables provided by the Israeli Central Bureau of Statistics. The tables included estimates of educational attainment for the 25 and older population, the three birth cohorts, as well as 5-year age groups (25 to 29, 30 to 34, etc.).

### **Estimation and weighting procedures**

Estimates of educational attainment are reported only for groups with a sufficient number of respondents. When census data were available for fewer than 250 respondents in a group, those values are included in regional and global averages but not reported at the country level. For example, census data were available for 241 Jews in Aruba. While these values are not reported in the data table or online sortable tables because they are below this threshold, they are included in the Jewish population-weighted measure of average Jewish attainment for the Latin America and Caribbean region as well as global Jewish values. For census data, cohort analysis is reported only for group in which the sample size consisted of at least 750 respondents, including respondents in the youngest cohort. Countries without data for the youngest cohort are excluded from all cohort analyses.

For countries whose main data source was a survey, an additional procedure was employed to create population estimates of educational attainment by religion. Highly educated people are often overrepresented on surveys because they are more willing to answer a survey. In addition, because surveys include margins of error, estimates of the educational or religious composition of the population from a given survey can differ substantially from more accurate estimates derived from a census. But in many countries, the United States, for example, the census asks about educational attainment but not religious affiliation. In these cases, estimates of education by religion derived from surveys were adjusted so that the educational attainment for the total population (all religions combined) matched the best available estimate (typically a census), and the country's religious composition (all education categories combined) matched Pew Research Center's 2010 population estimates.

Global and regional estimates of educational attainment by religion were calculated by weighting each country's data by the size of the respective population. In nearly all cases, the size of religious groups (by gender and generation) came from Pew Research Center's 2015 report, "The Future of World Religions: Population Growth Projections, 2010-2050." Different population weights were used in a handful of countries. In Czech Republic, large shares of the population did not declare their religious affiliation and/or educational attainment on the census. For this reason, estimates in both countries were weighted according to the number of people who provided both their religious affiliation and educational attainment. In Bahrain, Kuwait, Saudi Arabia and Qatar, educational attainment estimates for Muslims are weighted by the size of the citizen population because it was not possible to estimate educational difference by religion among the non-citizen populations of these countries.

# A note on regions

This report groups 151 countries and territories with available education and religion data into six major regions: Asia and the Pacific, Europe, Latin America and the Caribbean, the Middle East and North Africa, North America, and sub-Saharan Africa.

The 35 countries and territories in the Asia and the Pacific region are: Afghanistan, Armenia, Australia, Azerbaijan, Bangladesh, Cambodia, China, Federated States of Micronesia, Fiji, Hong Kong, India, Indonesia, Iran, Japan, Kazakhstan, Kyrgyzstan, Malaysia, Maldives, Mongolia, Nepal, New Zealand, Pakistan, Philippines, Samoa, Singapore, South Korea, Taiwan, Tajikistan, Thailand, Timor-Leste, Tonga, Turkey, Uzbekistan, Vanuatu and Vietnam.

The 36 countries and territories in Europe are: Albania, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Lithuania, Malta, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

The 30 countries and territories in Latin America and the Caribbean are: Argentina, Aruba, Bahamas, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Uruguay and Venezuela.

The 12 countries and territories in the Middle East and North Africa are: Algeria, Bahrain, Egypt, Iraq, Israel, Kuwait, Morocco, Palestinian territories, Qatar, Saudi Arabia, Tunisia and Yemen.

The 2 countries and territories in North America are: United States and Canada.

The 36 countries and territories in sub-Saharan Africa include Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Chad, Comoros, Democratic Republic of the Congo, Ethiopia, Gabon, Gambia, Ghana, Ivory Coast, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe.