The Continuing Persistence of Intense Religion in the United States
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Abstract: In their comment on our article about the persistence of intense religion in the United States, David Voas and Mark Chaves (2018) claimed that "the intensely religious segment of the American population is shrinking." In this response, we show that intense religion has persisted from the 1970s to the present, with a temporary uptick during the exceptional Reagan years. Voas and Chaves concluded otherwise because their analytical strategy was not sufficiently sensitive to nonlinear patterns. In addition to demonstrating the continuing persistence of intense religion, we also discuss criteria for measuring intense religion over time and the importance of avoiding unfounded assumptions in age–period–cohort analysis. We conclude that aspects of the classic secularization thesis championed by Voas, Chaves, and others are not supported by the data, and we suggest that scholars should look for better ways of thinking about religious change.

Keywords: religion; intense religion; secularization; social change

In a 2017 Sociological Science article, we demonstrated the persistent and exceptional intensity of American religion from the late 1980s to the present—a time period in which the percentage of Americans with no religious affiliation tripled (Schnabel and Bock 2017). We showed that although moderate religion is on the decline, intense religion—strong affiliation, very frequent religious practice, biblical literalism, and evangelicalism—persists. We also showed that in other countries, intense religion is declining quickly or already at very low levels.

In a comment on our article, David Voas and Mark Chaves (2018) argue that “the intensely religious segment of the American population is shrinking.” They provide three specific critiques, saying that we (1) “missed clear signs of declining intense religion,” (2) “examined a limited set of indicators,” and (3) “paid insufficient attention to cohort differences.” Their primary argument is that there is slow change on intense religion if you go far enough back, noting that “year-to-year sampling error makes slow, long-term change harder to spot, but the signal is there.”

Voas and Chaves offer some important critiques, but our position does not change. We show that (1) intense religion is not declining when appropriately adjusting for the unique Reagan years, (2) intense religion is persistent across relevant measures, and (3) Voas and Chaves’ age–period–cohort (APC) analyses are not sufficiently justified.

We agree with Voas and Chaves that average religiosity is declining in the United States. The complexity of American religion is such that religiosity can be on the decline, on average, while at the same time the subset of Americans who are intense religionists remains stable. For example, a rising number of Americans are...
religiously unaffiliated, and religious service attendance is declining on average. But even as religion declines on average, intense religionists have made up a persistent proportion of the population from the 1970s to the present, with a temporary uptick in the Reagan years. Rather than all types of religion declining, as has occurred in comparable countries going through secularization, in the United States only moderate religion has declined in the years covered by the General Social Survey.

**The Persistence of Intense Religion in the United States**

Voas and Chaves say we did not find evidence for the supposed decline of intense religion because we “focused only on the period since the late 1980s” and because we “did not look hard enough for slow change.” In their primary challenge to our study, they assert that “three of [our] five indicators of intense religion—affiliation, attendance, and literalism—show clear signs of decline.” They then present linear trend lines that suggest significant decline on those three measures and significant increase on the other two measures.

We were critiqued for focusing on the years when the religiously unaffiliated began to rapidly grow. Let’s first consider Voas and Chaves’ figure showing intense religion over time (Figure 1 of their comment). Ignoring the trend line for now, the plotted data show that the 1980s appear to be a unique period with an uptick in intense religion. The temporary fluctuation corresponds with the Reagan years and, to use the words of Hout and Fischer (2002:168), “the emergence of the Religious Right as a force in Republican Party politics.” There are several ways of dealing with nonlinearity like the uptick that occurred during the Reagan years, yet Voas and Chaves do not adjust for it. We will consider a few ways of addressing nonlinearity, including spline functions and locally weighted regression (lowess), but will first look at what happens when simply including a binary measure for the Reagan years.

Table 1 presents results that parallel Voas and Chaves but with a control for the Reagan years. With just this binary control for the Reagan years, intense religion is persistent on strong affiliation and frequent attendance and rising significantly on frequent prayer and evangelical affiliation. The one exception to persistent or rising intense religion is biblical literalism.

Upon further analysis, however, we found the biblical literalism trend is not really an exception but instead a pattern driven by Voas and Chaves’ choice to limit the analysis to respondents born in the United States. Voas and Chaves both assert the “results are substantively the same regardless of whether the analysis is limited to the native-born population” and say they limit the analysis to “the native-born population” to avoid “comparing the ‘apples’ of a population that contains fewer immigrants earlier in the period to the ‘oranges’ of a population that contains more immigrants later in the period.” We were a bit puzzled by the break from the standard of including immigrants in research on social and religious change (e.g., Hout 2016; Hout and Fischer 2014), but nevertheless, we first followed their decision to exclude immigrants and then checked the patterns including immigrants. As we show in Table 1, biblical literalism is slowly declining among respondents born in the United States but not declining when all Americans are considered together.
Table 1: Intense religion over time, accounting for exceptional Reagan years.

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>Attend</th>
<th>Pray</th>
<th>Bible is Literal</th>
<th>Bible is Literal, All Americans</th>
<th>McFadden’s $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous, All Years</td>
<td>0.998</td>
<td>1.012*</td>
<td>0.998</td>
<td>0.999</td>
<td>0.001</td>
</tr>
<tr>
<td>Reagan Years</td>
<td>1.126*</td>
<td>1.106*</td>
<td>1.082</td>
<td>1.151*</td>
<td>0.002</td>
</tr>
<tr>
<td>(Binary for 1980–88)</td>
<td>(0.066)</td>
<td>(0.000)</td>
<td>(0.161)</td>
<td>(0.021)</td>
<td>(-0.000)</td>
</tr>
<tr>
<td>N</td>
<td>51,805</td>
<td>29,834</td>
<td>55,982</td>
<td>30,006</td>
<td>33,250</td>
</tr>
</tbody>
</table>

Notes: Logistic regression exponentiated coefficients (i.e., odds ratios); $p$ values in parentheses. All available cases used except that the sample is restricted to respondents born in the United States to parallel Voas and Chaves. Model labeled “All Americans” includes immigrants. Survey weights used. Source: General Social Survey, 1972–2016. *$p < 0.05$.

When considering all Americans, each of the five measures of intense religion is persistent or rising over time.

A binary control variable for the unique Reagan years was sufficient to indicate that intense religion has persisted from the 1970s to the present, but other methods are perhaps better suited to addressing nonlinearity. For example, spline functions are effective for allowing distinct time periods to emerge in models of data, and in Table 2 we present results for different linear trends with knots at key points: the year of Reagan’s election, the peak of the intense religion uptick in the midst of Reagan’s presidency, and the end of Reagan’s presidency. In the period prior to Reagan, intense religion was steadily persistent or rising. It ticked upward during the beginning of Reagan’s presidency and peaked in the midst of the Reagan years. Intense religion then receded back to the level of the 1970s by 1989, where it has stayed since.

What may be an even better approach for handling nonlinear data is a nonparametric technique called lowess regression (Cleveland 1993; see Hout and Fischer [2014] for an example of how this method can be effectively applied to trends in American religion). In Figure 1, we present scatterplots of intense religion by year for all available respondents (including immigrants) with lowess trend lines. This figure clearly illustrates the point we have already made: intense religion is persistent, with a temporary uptick during the Reagan years. When superimposing a linear trend line on these data—in essence assuming linearity in the presence of a nonlinear pattern in the data—the uptick occurring toward the beginning of the available years could lead to the false conclusion of decline.

When accounting for the uptick of intense religion during the Reagan years and including immigrants, intense religion is persistent or rising across each of the measures for as long as they have been fielded. Voas and Chaves mistakenly concluded otherwise because they failed to adjust for the Reagan-era uptick in intense religion. As presented in their comment, Voas and Chaves have it both
Table 2: Intense religion over time, with splines for observed periods of religious change.

<table>
<thead>
<tr>
<th>Year Spline: 1972–80</th>
<th>Strong Affiliation</th>
<th>Pray Several Times a Day</th>
<th>Attend Several Times a Week</th>
<th>Attend Several Times a Week, All Americans</th>
<th>Bible is Literal</th>
<th>Bible is Literal, All Americans</th>
<th>Evangelical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.988</td>
<td>NA</td>
<td>1.029*</td>
<td>1.025</td>
<td>NA</td>
<td>NA</td>
<td>1.043*</td>
</tr>
<tr>
<td></td>
<td>(0.313)</td>
<td></td>
<td>(0.042)</td>
<td>(0.073)</td>
<td></td>
<td></td>
<td>(0.000)</td>
</tr>
<tr>
<td>Year Spline: 1980–84</td>
<td>1.064*</td>
<td>1.179*</td>
<td>0.996</td>
<td>1.012</td>
<td>NA</td>
<td>NA</td>
<td>1.001</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.047)</td>
<td>(0.871)</td>
<td>(0.624)</td>
<td></td>
<td></td>
<td>(0.965)</td>
</tr>
<tr>
<td>Year Spline: 1984–89</td>
<td>0.955*</td>
<td>0.962*</td>
<td>0.980</td>
<td>0.968*</td>
<td>0.953*</td>
<td>0.953*</td>
<td>1.028*</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.002)</td>
<td>(0.201)</td>
<td>(0.031)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>Year Spline: 1989–2016</td>
<td>0.998</td>
<td>1.014*</td>
<td>0.996</td>
<td>0.998</td>
<td>0.996*</td>
<td>0.999</td>
<td>0.999</td>
</tr>
<tr>
<td></td>
<td>(0.251)</td>
<td>(0.000)</td>
<td>(0.131)</td>
<td>(0.459)</td>
<td>(0.010)</td>
<td>(0.406)</td>
<td>(0.516)</td>
</tr>
<tr>
<td>N</td>
<td>51,805</td>
<td>29,834</td>
<td>55,982</td>
<td>61,183</td>
<td>30,006</td>
<td>33,250</td>
<td>55,633</td>
</tr>
<tr>
<td>McFadden’s R²</td>
<td>0.001</td>
<td>0.002</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Notes: Logistic regression exponentiated coefficients (i.e., odds ratios); p values in parentheses. All available cases used except that the sample is restricted to respondents born in the United States to parallel Voas and Chaves. Models labeled “All Americans” include immigrants. Survey weights used. Source: General Social Survey, 1972–2016 (strength of affiliation first fielded in 1974, prayer frequency in 1983, attendance in 1972, view of Bible in 1984, and measures used to construct evangelical affiliation in 1972). NA, not applicable. *p < 0.05.

ways, failing to acknowledge the uptick yet still leveraging its peak to support their claim of linear religious decline.5

Measuring Intense Religion

Voas and Chaves suggest five additional measures of intense religion. In our study, we carefully selected our measures on the basis of three criteria: (1) they are commonly agreed-upon standard measures of religious belonging, behaving, and believing; (2) they provide the ability to differentiate between intense religion, moderate religion, and secularism; and (3) they are consistently available across the time period under investigation. Although all of our original indicators meet the three criteria for measuring intense religion over time, all of the additional items proposed by Voas and Chaves fall short on one or more of them.6

Of the additional items Voas and Chaves propose, the one with the most face validity is the question asking people how religious they are. It is a commonly agreed-upon measure and allows for differentiating between intense and moderate religionists.7 Despite it fitting our pattern of persistence over time, we did not include it in our original study because it is not consistently available across the entire period under investigation. As Voas and Chaves show, there is no significant change on whether people identify as “very religious” over time.8

The item that asks whether people know God exists is a standard measure that is consistently available, but it arguably does not provide the ability to differentiate intense religion from moderate religion or even from merely nominal religion. Looking at Figure 2 of Voas and Chaves’ comment illustrates how this item does not fit with the levels of intense religion suggested by the other measures. Based on
Voas and Chaves’ contention that this measure is an indicator of intense religion, substantially more than half of Americans are intensely religious. We do not subscribe to the position that a strong majority of Americans are intensely religious, and we doubt Voas and Chaves would either.

We agree with Voas and Chaves that it is important to think about “year-to-year sampling error,” and we therefore question the utility of considering items asked just a few times. Three of the additional items suggested by Voas and Chaves were asked four or fewer times. By no coincidence, the items fielded only a few times—(1) “those who violate God’s rules must be punished”; (2) “to me, life is meaningful only because God exists”; and (3) “I try hard to carry my religious beliefs over into all my other dealings in life”—are also not commonly agreed-upon standard religion measures. Because they were only fielded a few times—and do not measure intense religion as well as the other items—these items are not effective for measuring long-term trends in intense religion. Despite not being available for many years, the years that are available follow the same pattern as the other measures: persistence apart from Reagan-era upticks.9

Along with the additional individual measures they suggest, Voas and Chaves also propose a composite measure that combines strong affiliation, weekly religious service attendance, and knowing that God exists. We are not opposed to the idea of a composite measure, but two of the three items used to construct their composite...
measure do not measure intense religion.\textsuperscript{10} Whereas Voas and Chaves replicate our operationalization of intense religion at more than weekly attendance elsewhere, they inexplicably use weekly attendance for their composite measure. And, as we noted above, believing God exists does not clearly distinguish intense religionists from the more moderately religious.

In short, the measures we focused on in our study are better suited to measuring and examining long-term change in intense religion than the additional measures proposed by Voas and Chaves. The one additional item that we agree could be a good measure of intense religion follows the same pattern of persistence as the other items we proposed, with no significant change in the proportion who identify as “very religious” over time even as a rising proportion identify as “not religious.”

Population and Politics

Voas and Chaves say that cohort trends explain the apparent decline of intense religion shown in their analysis that assumes linearity and uses questionable measures. Because intense religion is not declining, the question of whether cohort effects explain decline is a moot point. Nevertheless, we will respond to this critique because it opens the opportunity to discuss how other population dynamics, as well as political factors, affect trends in American religion.

APC effects are hard to decompose because any two of the factors perfectly predict the third. Voas and Chaves’ cohort analysis is deeply problematic because they assume age has no effect and they fail to sort out the separate effects of age, period, and cohort. To make the arguments they set forth, they should conduct a full APC analysis (see, for example, Winship and Harding [2008]), but instead they work from an assumption based on “common sense and established knowledge” about people not aging into religion (Voas and Chaves 2016:1533). According to them, “differences between the young and the old might arise if people become much more religious as they get older, but there is scant evidence of such individual-level change.” This assumption is not sufficiently justified.

Growing older and going through major life milestones could foster polarization of moderate religion into intense religion (or, perhaps, secularism).\textsuperscript{11} For example, we might assume that when people get married, have children, retire, face new ongoing health concerns, or approach the end of life, these major life course events could lead some moderately religious people to intensify. We originally focused on overall trends rather than APC effects, and a full APC analysis of religious change is still needed. Here, we simply consider patterns by age groups over time to provide one possible alternative to Voas and Chaves’ analytic choices. As shown in Figure 2, there appear to be clear differences in strong affiliation by age, and the level of strong religion within an age group is fairly consistent over time, with an uptick across groups in the Reagan years (likely a period effect).

Whereas Voas and Chaves argue we pay insufficient attention to cohort effects, we argue Voas and Chaves pay insufficient attention to other population dynamics and political factors frequently highlighted as central to religious change in the United States (Djupe, Neiheisel, and Sokhey 2018; Hout 2016; Hout and Fischer 2002, 2014). Cohort trends matter, but so do fertility and immigration. Voas and
Chaves note that children tend to be less religious than their parents. But if intense religionists have more children\(^\text{12}\) or immigrants tend to be more intensely religious\(^\text{13}\), then these population dynamics could replace those leaving. As Hout (2016) showed in relation to the persistence of Catholicism in the United States, population dynamics can and do replace people leaving religion (also see Hout, Greeley, and Wilde [2001] on the Protestant population).

Politics matters too. Scholars frequently highlight the Reagan years as a key point in the realignment of American religion and politics, showing that political backlash helps explain the rapid rise of the religiously unaffiliated in the United States (Djupe et al. 2018; Hout and Fischer 2014). As we demonstrated, accounting for the Reagan years explains away the supposed decline in intense religion.

### Conclusion

In their comment on our article, Voas and Chaves asserted that “the intensely religious segment of the American population is shrinking.” In this response, we showed that intense religion has persisted from the 1970s to today, with a temporary uptick during the Reagan years. Voas and Chaves concluded otherwise because their analytical strategy assumed linearity despite nonlinear patterns in
the data. The argument that intense religion is on the decline in the United States is not supported by the data when we relax their linearity assumption with either parametric or nonparametric techniques.

Voas and Chaves come to this topic with long-standing interest in and understanding of the secularization thesis. We came to this debate as agnostics and are grateful to Voas and Chaves for stimulating our interest in the topic. When we read Voas and Chaves’ 2016 *American Journal of Sociology* article on the decline of American religion, we found it exciting and thought provoking. Motivated by their study—and the work of Hout, Fischer, and others on the politics of disaffiliation—we wondered whether all types of religion are declining similarly or if only certain types of religion are declining. We found that intense religion is persistent in the United States in a way that makes it an outlier in relation to comparable countries. After examining the data again, we remain convinced that the empirical evidence supports our argument that it is moderate religion that is on the decline in the United States.

Looking ahead, the persistence of intense religion in the United States is contingent on demographic and political factors that could change in the future. For example, if intense religionists start having fewer children, we might expect intense religion to decline over time. But for now, intense religion persists and has persisted for as long as the General Social Survey has been fielded.

Classic statements of the secularization hypothesis predicted the decline and fall of religion in a generation or two. The drama of that prediction is drained, and the fundamental causal claims of the secularization thesis called into question, if the rate of change is so slow that the only evidence for it is an ill-fitting straight line strung out over four or five decades. The United States is becoming less religious on average, but the original claims of Weber and others somehow failed to arise in the United States, which remains a potential counterexample to the classic secularization thesis. And the United States is not the only potential counterexample, with it being similarly hard to find support for the secularization thesis in a variety of cultural contexts, such as in some Catholic-majority countries—for example, Poland, Italy, and Mexico—and many Muslim-majority countries. In fact, one may wonder whether it is not the United States but instead the highly secularized countries of Western and Northern Europe with Protestant state churches that are unique in cross-national perspective. Rather than continuing to search for elusive and sometimes tenuous support for the classic secularization thesis, we should instead look for better ways of thinking about religious change.

Notes

1 We want to be especially clear on this point because some media outlets and public figures misinterpreted and sensationalized our finding about the persistence of intense religion in the United States (Kessler 2018).

2 Reagan’s presidency is emblematic of a period of realignment of intense religion and right-wing politics in the United States. In fact, it was backlash against this political realignment that yielded a rapid rise of the unaffiliated starting at the end of Reagan’s presidency (Hout and Fischer 2002, 2014).
We chose to include 1980 with the Reagan years because it was the year Reagan was elected and was a key moment in time that led to his election. Similarly, scholars in the future would be theoretically justified in including 2016 in the range of Trump years because it was the time period in which he was running and the context which led to his election. The Reagan years are not just about Reagan, though Reagan is symbolic of what was happening. Historians and political scientists typically include all of the 1980s (the election year was considered a key turning point of realignment) in what they call the Reagan Era, and sometimes even more years are included as being emblematic of the rise of a new form of conservatism.

This item was first asked in 1984, which was the peak of the temporary intense religion uptick.

Some readers may be interested in the existence of a parallel between the comment and response arguments here and the arguments in a comment and response on Hout and Fischer’s (2002) American Sociological Review article on the rise of the religiously unaffiliated. Hout and Fischer argued that the classic secularization thesis did not seem to explain the rise of the religiously unaffiliated in the United States, which followed a nonlinear pattern of persistence through the end of Reagan’s presidency and rapid rise after it. Marwell and Demerath (2003) argued that Hout and Fischer’s findings supported the secularization thesis, and Hout and Fischer (2003) responded that the data—including the nonlinear nature of religious change and persistent religiousness of many religiously unaffiliated Americans—provided more support for a political backlash explanation than for the classic secularization thesis.

Of note, Voas and Chaves (2016) used only one of the additional items they propose (the belief in God measure) in their original article.

This item may become less effective for measuring change over time if its meaning shifts. Some religious leaders seem to recognize rising concern with aspects of religion and are rebranding. The authors have a shared experience that illustrates the point. On an evening in the summer of 2015, one of the authors was conducting phone surveys and the other supervising interviewers at the Indiana University Center for Survey Research. A respondent was giving the most “intense” response on every religion measure—and correspondingly conservative social and political attitudes—until the question asking how religious of a person she is. She said she was not at all religious and had plenty of asides to share about it, illustrating a linguistic shift from saying one is very religious to saying one has a very strong personal relationship with Jesus.

We find it a bit puzzling that Voas and Chaves included the “very religious” item without its “very spiritual” companion measure. Whereas there is a similar level of identification as “very religious” over time, the percentage of Americans who identify as “very spiritual” is rising significantly over time.

The two items that seem to be declining were first asked in or just after the Reagan years (which explains the apparent decline in these measures based on our own additional analyses), whereas the one that is persistent (if not rising) was first asked in a later period.

Our own analysis of multiple composite measures yielded either persistence or rising intense religion over time depending on how the composite measure was operationalized (the key distinction is whether or not prayer and evangelicalism, which have risen since the 1970s, are included in the composite measure). Here are the patterns for three example composite measures: (1) a measure that adds up the number of intense responses given on our five measures yields a significant rise over time; (2) a measure that counts as intense religionists those who have a strong affiliation, attend multiple times a week, and are biblical literalists is persistent (i.e., no significant change over time); and (3)
a measure that counts as intense religionists those who have a strong affiliation, pray multiple times a day, and are biblical literalists is rising over time.

In fact, polarization as people age could occur without changing religion on average if equal numbers of people polarize into being more religious as polarize into being less religious.

We found significant and very large fertility differences across sampling strategies and indicators of intense religion (depending on the measure and group under consideration, the difference in children ever born ranged from about 0.2 to about 0.6 children).

The percentage of immigrants who are biblical literalists is increasing over time, and this helps explain why biblical literalism persists in the United States.

We are grateful to Mike Hout for suggesting these countries as further potential counterexamples to the secularization thesis.

References


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