Supporting Online Material for

The Religious Engagement Paradox

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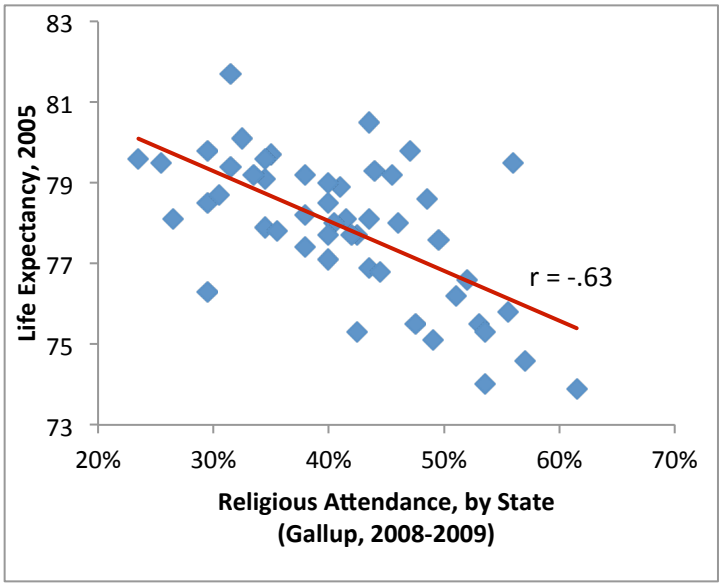
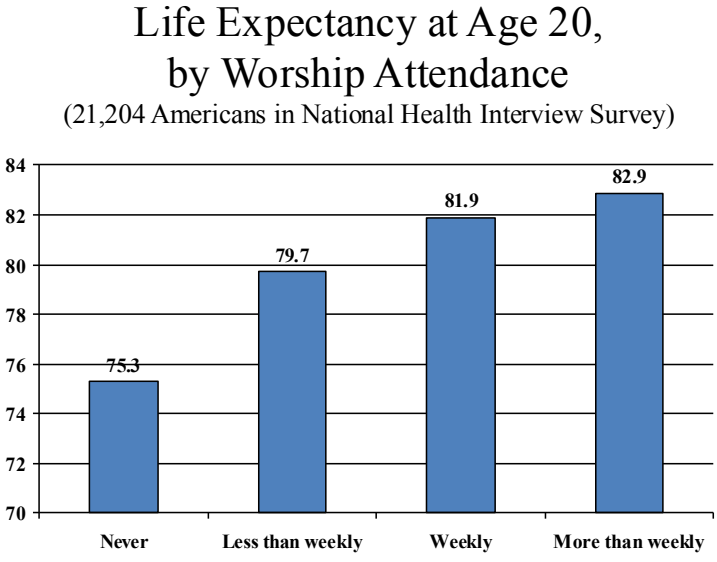
The U.S. offers examples of the "religious engagement paradox": religious engagement correlates *negatively* with well-being across aggregate levels, and *positively* across individuals. To further explore the phenomenon, we plotted the association of various state-level human flourishing data with state religious attendance rates (percent reporting weekly or "almost every week" church, synagogue, or mosque attendance from 706,888 interviews conducted during 2008 and 2009 for the Gallup-Healthways Well-Being Index[1]). We also contrasted the resulting associations with those previously observed across individuals.

Life Expectancy

Across states, religious engagement predicts shorter life expectancy. Religious attendance rates correlate negatively with state average life expectancy.[2]



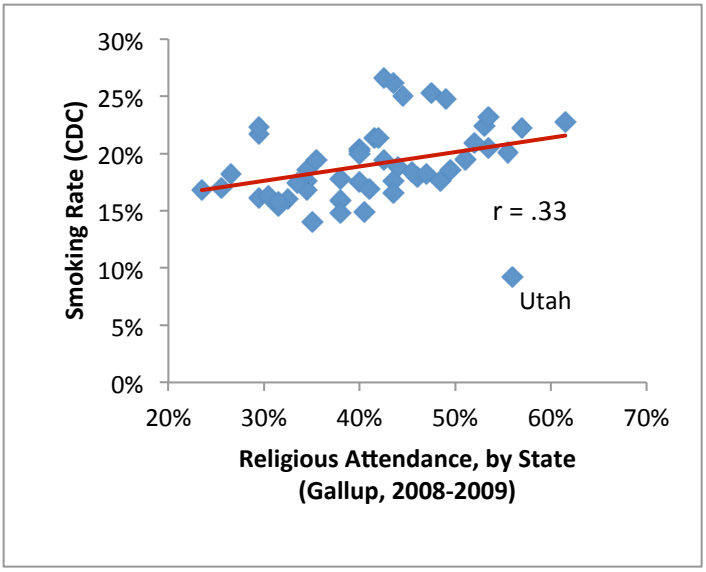
Across individuals, religious engagement predicts longer life expectancy. In epidemiological studies, including a meta-analysis of 69 studies, religious *individuals* live longer.[3]



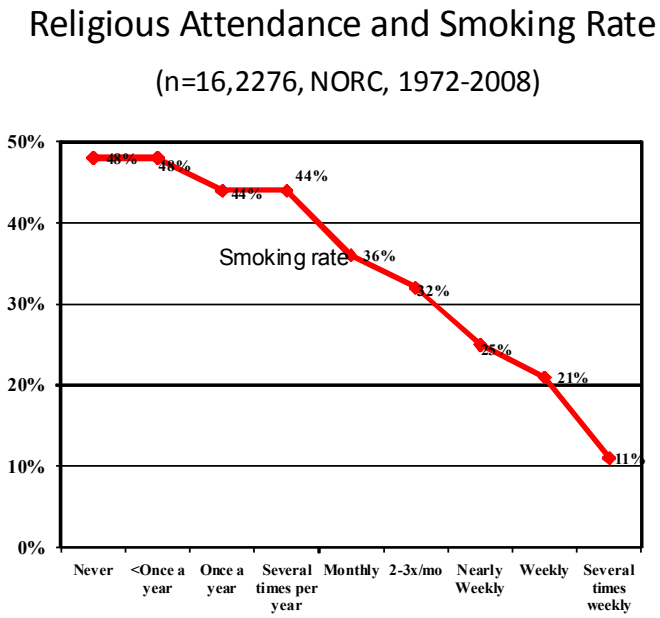
Smoking

The life expectancy variations are attributable partly to smoking rate differences.

Across states, religious engagement predicts higher smoking rates. With the dramatic exception of Utah, more religious states (such as in the American South) report more smoking.

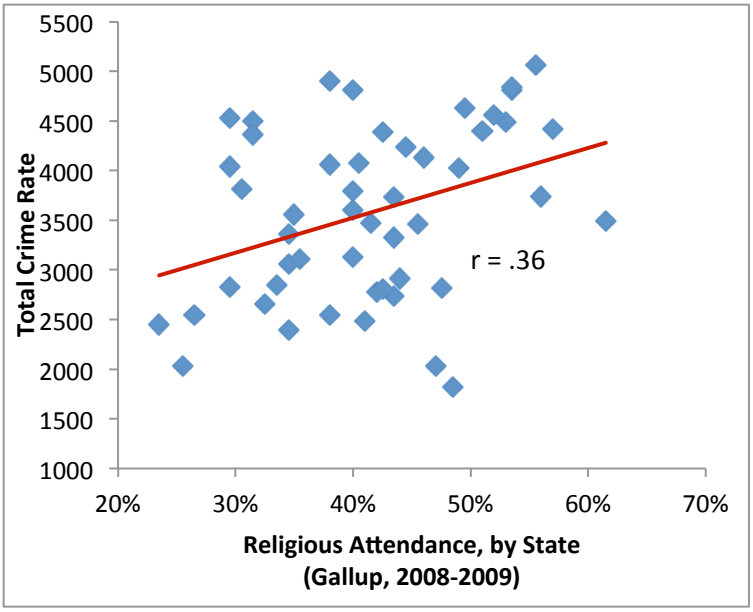


Across individuals, religious engagement predicts lower smoking rates. In National Opinion Research Center General Social Surveys, actively religious individuals have reported smoking much less.

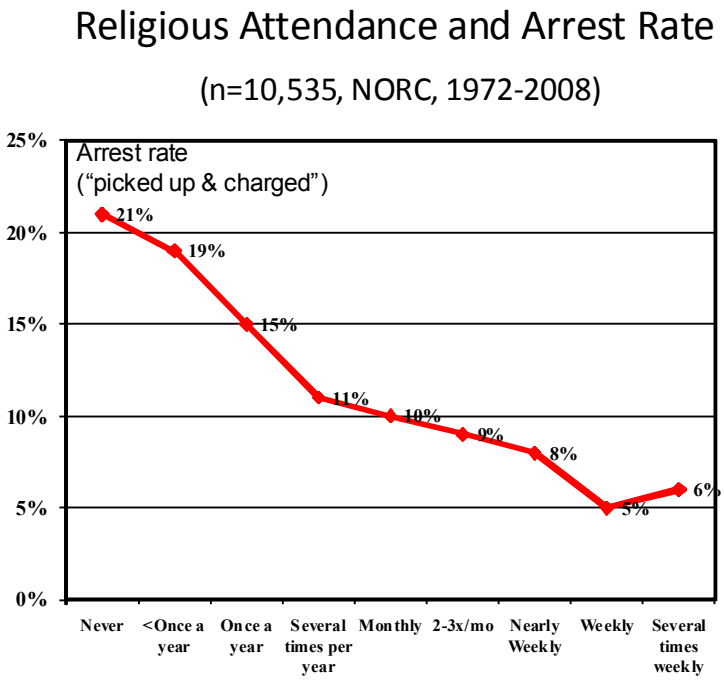


Crime Rate

Across states, religious engagement predicts higher crime rate. Total crime report is the sum of property + violent crime as reported in the FBI Uniform Crime Report.

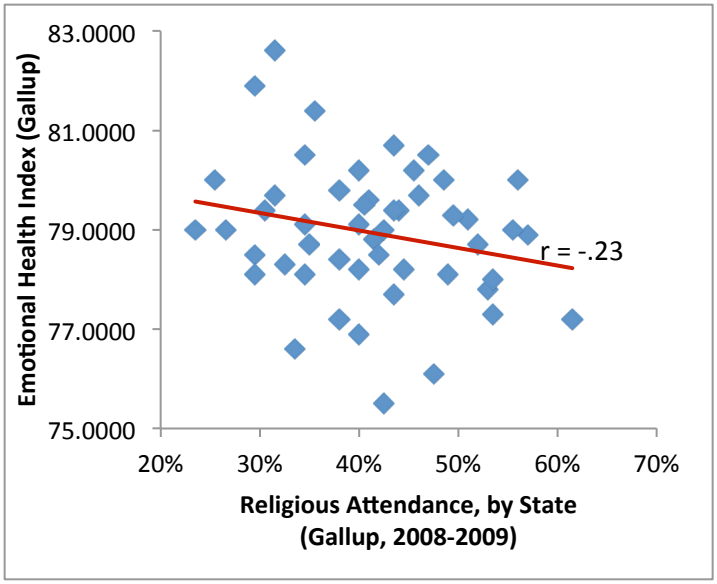


Across individuals, religious engagement predicts lower crime rate. In National Opinion Research Center General Social Surveys, actively religious individuals are much less likely to report having been arrested (and to report having been punched).

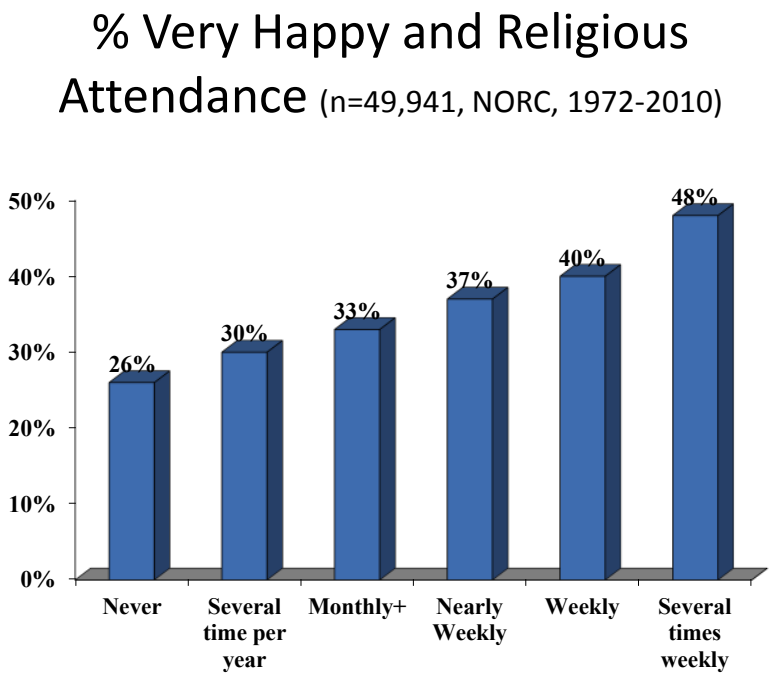


Emotional Well-Being

Across states, religious engagement predicts modestly lower emotional well-being. Well-being is assessed by Gallup's "emotional health index," asking people if, "yesterday," they felt treated with respect all day, smiled and laughed a lot, learned or did something interesting and experienced each of the following feelings: enjoyment, worry, sadness, stress, anger, happiness, and depression.

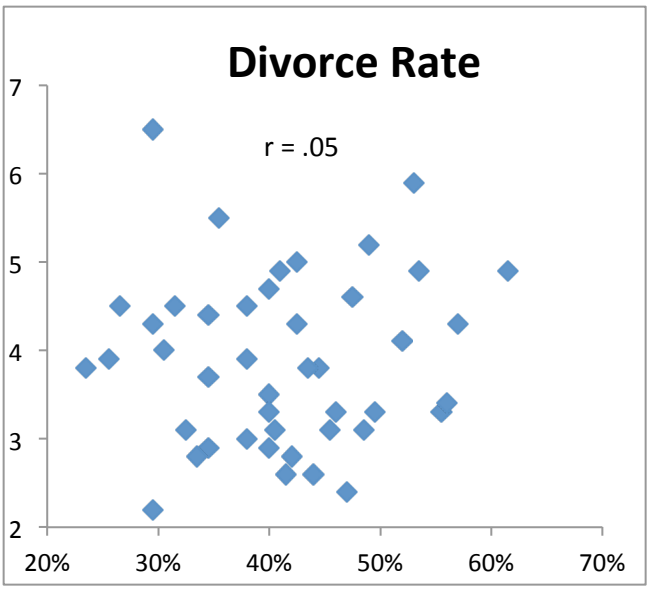


Across individuals, religious engagement predicts greater self-reported happiness. In National Opinion Research Center General Social Surveys, actively religious individuals more often report being "very happy." This association between religiosity and well-being is, as we've reported, evident within many other countries in the Gallup World Poll, and also in World Values Survey data,[4] Australian national surveys,[5] and in various other surveys.[6]

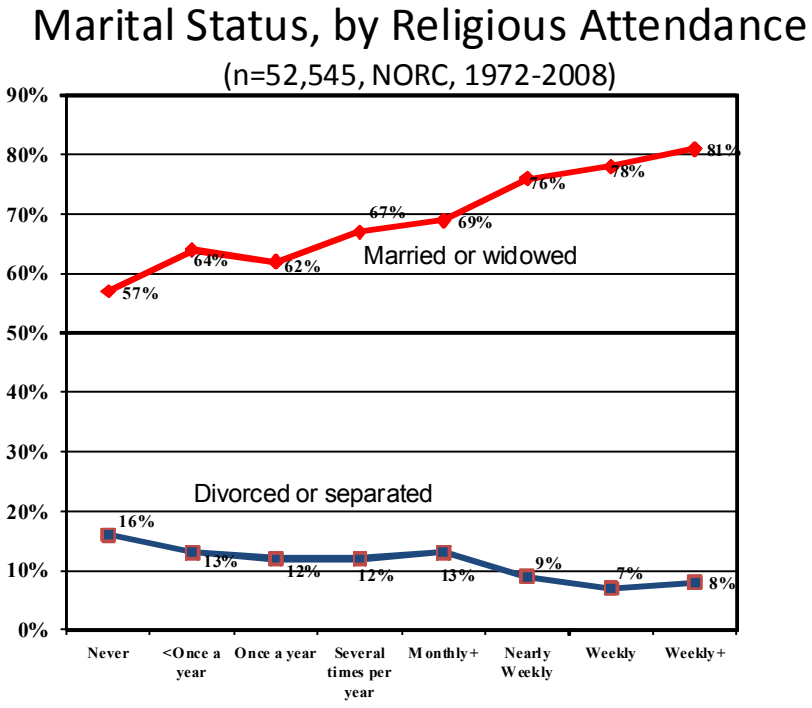


Divorce

Across states, religious engagement is virtually uncorrelated with divorce rates. 2008 divorce rates, reported as share of marriages, correlate +.05 with state divorce rates (excluding data from five not-reporting states: California, Georgia, Hawaii, Louisiana, Minnesota[7]).

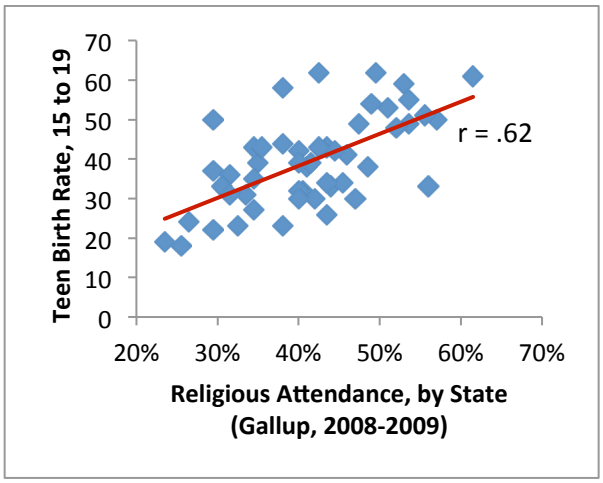


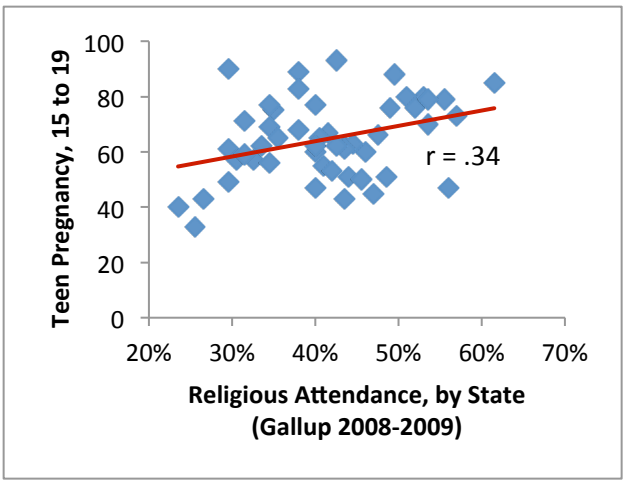
Across individuals, religious engagement predicts lower divorce rate. In National Opinion Research Center General Social Surveys, actively religious individuals more often report being married or widowed and less often report being divorced or separated.



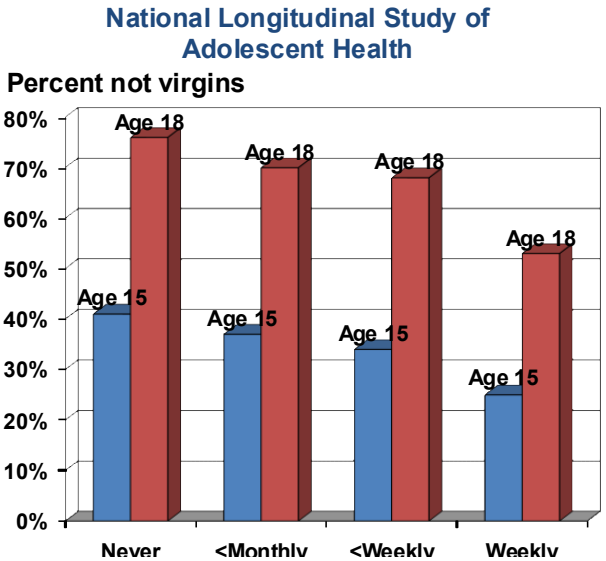
Teen Pregnancy and Birth

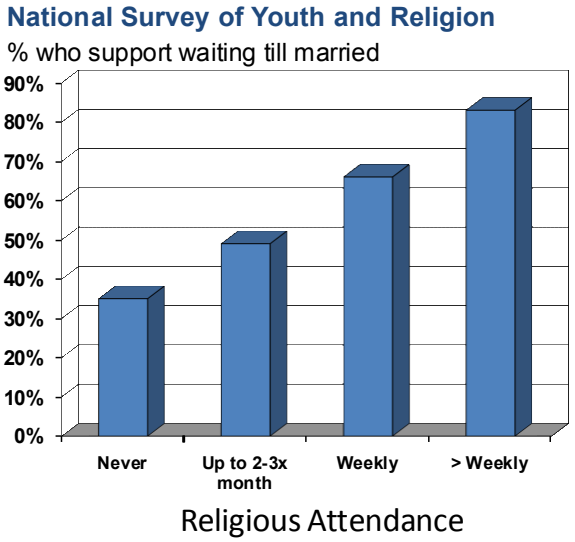
Across states, religious engagement predicts higher teen pregnancy and birth rates.[8] Using an 8-item measure of adult religious belief and practice from the Pew Forum's U.S. Religious Landscapes Survey, another research team found a stronger .73 correlation between state level religiosity and teen (15 to 19) birth rate.[9]



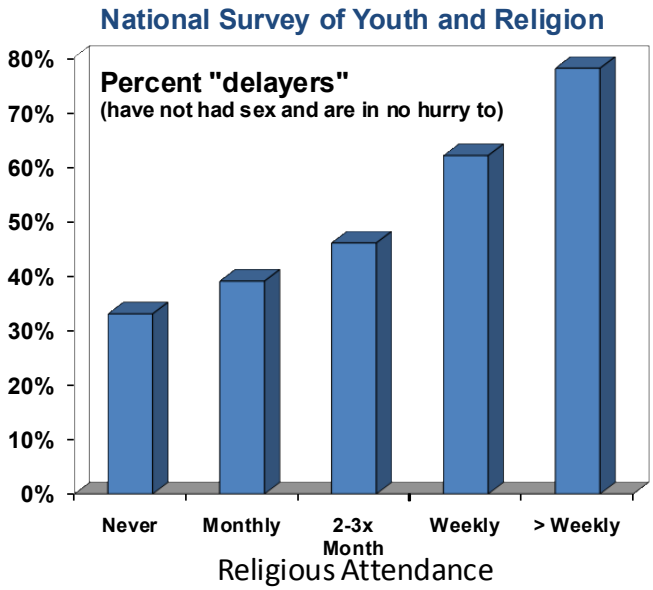


Across individual teens, religious engagement predicts more support for "waiting till married," less sexual activity, and modestly fewer teen births. These data come from the National Survey on Youth and Religion (a survey of nationally representative sample of 13- to 17-year-olds)[10] and the National Longitudinal Study of Adolescent Health.[11] The latter study also found that religious engagement was not a predictor, among those sexually active, of using birth control at first or most recent sex. If religiously engaged teens are a) more sexually restrained, and b) not less likely to use birth control when sexually active, then they should have somewhat fewer teen births. Indeed, religiously engaged teens have a slightly reduced risk of "ever being pregnant (National Longitudinal Study of

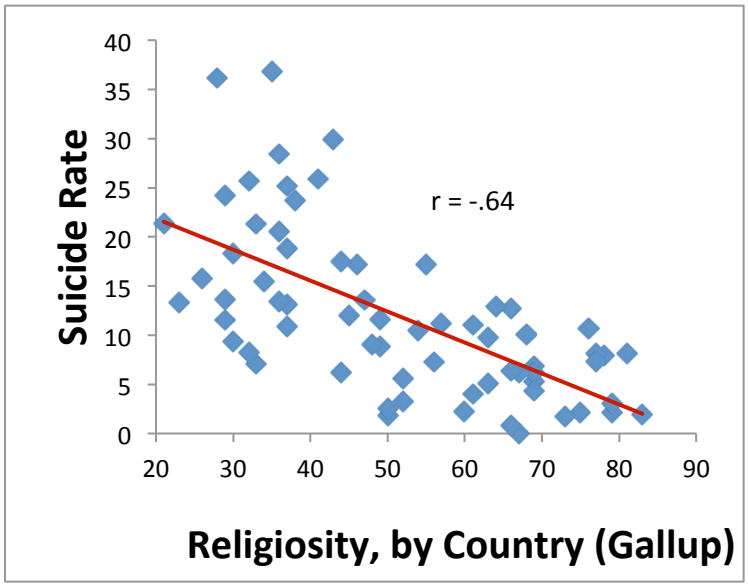




Adolescent Health: r = -.22) and of premarital pregnancy (a new meta-analytic review of 87 studies of adolescent religiosity and sexuality:[12] r = -.16).



A notable exception to the religious engagement paradox is the lower suicide rates of both more religious countries[13] and individuals.[14] Another anomalous finding is Andrew Clark and Orsolya Lelkes' observation, from 86,701 respondents to the European Social Survey, that "people [both religious and nonreligious] are more satisfied in more religious regions," a finding they attribute to factors such as greater social capital and lower crime.[15]



Conclusion

We offer the religious engagement paradox as a simple, intriguing phenomenon for others to explore, extend, and explain. For example, how would introducing controls for other variables, such as income, affect religiosity/well-being associations across both states and individuals?

[1] Frank Newport, February 17, 2010, "Mississippians go to church the most; Vermonters, least." www.gallup.com/poll

[2] Life expectancy data from Social Science Research Council's *American Human Development Report 2008-2009*.

[3] National Health Interview Survey from Hummer, R. A., Rogers, R. G., Nam, C. B., & Ellison, C. G. (1999). Religious involvement and U.S. adult mortality. *Demography, 36,* 273–285. Meta-analsysis reported by Y. Chida, A. Steptoe, & L. H. Powell (2009). Religiosity/spirituality and mortality. *Psychotherapy and Psychosomatics, 78,* 81-90. See also McCullough, M. E., Hoyt, W. T., Larson, D. B., Koenig, H. G., & Thoresen, C. (2000). Religious involvement and mortality: A meta-analytic review. *Health Psychology, 19,* 211–222, and George, L. K., Ellison, C. G., & Larson, D. B. (2002). Explaining the relationships between religious involvement and health. *Psychological Inquiry, 13,* 190-200.

[4] Inglehart, R. (1990). *Culture shift in advanced industrial society.* Princeton, NJ: Princeton University Press.

[5] Australian Centre on Quality of Life (2008). *The Australian Unity Wellbeing Index.* Deakin University http://acqol.deakin.edu.au/index_wellbeing/Survey_18.2.pdf.

[6] David G. Myers (2000). The funds, friends, and faith of happy people. *American Psychologist, 55,* 56-67.

[7] FiveThirtyEight.com (2010, January 12). Divorce rates higher in states with gay marriage bans. www.fivethirtyeight.com.

[8] 2005 data reported by Henshaw, K. K., & Carlin L. (2010). *U.S. teenage pregnancies, births and abortions: National and state trends by race and ethnicity.* www.guttmacher.org/pubs/USTPtrends.pdf

[9] Straythorn, J. M., & Strayhor, J. C. (2009). Religiosity and teen birth rate in the United States. *Reproductive Health, 6:14* (www.reproductive-health-journal.com/content/6/1/14)

[10] National Survey on Youth and Religion survey of nationally representative sample of 13- to 17-year-olds: Mark Regnerus (2007). *Forbidden fruit.* New York: Oxford University Press.

[11] Nonnemaker, J.M., C.A. McNeely and R.W. Blum (2003). Public and Private Domains of Religiosity and Adolescent Health Risk Behaviors: Evidence from the National Longitudinal Study of Adolescent Health. *Social Science and Medicine. 57,* 2049-2054.

[12] Steven M. Lucero, Katherine G. Kusner, & Emily A. Padgett (2010). Adolescent sexual behavior and religiousness: A meta-analytic study. Unpublished manuscript, Department of Psychology, Bowling Green State University.

[13] Pelham, B., & Nyiri, Z. (2008, July 3). In more religious countries, lower suicide rates. www.gallup.com/poll

[14] Gearing, R. E., & Lizardi, D. (2009). Religion and suicide. *Journal of Religion and Health, 48,* 332-341.

[15] Clark, A. E., & Lelkes, O. (2009). Let us pray: Religious interactions in life satisfaction. Unpublished manuscript, Paris School of Economics.