

Religion, Life Expectancy and Active Life Expectancy in the United States

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BACKGROUND

- Many studies have documented a positive link between religion and physical and mental health and survival.
- These studies have tended to find that the link is stronger for public religious activity compared to private religious expression or beliefs.
- A limitation of this research is that much of it has been cross-sectional and/or examined health outcomes or mortality separately, but not in combination.

PURPOSE

- To examine the effect of different aspects of religion on health and mortality jointly by estimating total, active and inactive life expectancy.

DATA

- Analysis of data from the 1998-2012 waves of the Health and Retirement Study (HRS), a longitudinal study of health, economic, and family issues concerning adults over age 50 in the United States.
- Participants (~20,000) are interviewed every two years and followed until they die. Deaths are ascertained through reports by next of kin and NDI matches.
- Response rates range from 70-82% at baseline and from 87-89% in each follow-up wave.
- HRS is funded by a grant (U01 AG009740) from the National Institute on Aging, with supplemental support from the Social Security Administration.

RELIGION MEASURES

Religious affiliation (from 1998 wave)

- What is your religious preference; is it Protestant, Catholic, Jewish, some other religion, or do you have no preference?
- Coded as: a) any vs. no affiliation; b) Catholic vs. Protestant

Religious activity (from 2004 wave)

- About how often have you attended religious services during the past year?
- Coded as: at least once a week, less than 2-3 times a month, never

Importance of religion (from 1998 wave)

- How important would you say religion is in your life; is it very important, somewhat important, or not too important?
- Coded as: very, somewhat or not too important.

MEASURE OF ACTIVE VS. INACTIVE LIFE EXPECTANCY

Activities of Daily Living (ADL)

- Dressing, bathing, eating, walking across a room, getting in/out of bed, using a toilet

Instrumental Activities of Daily Living (IADL)

- Preparing meals, shopping for personal items, using a telephone, taking medications, managing money

Respondents who have any difficulty performing at least one ADL or IADL are defined as *inactive*; otherwise as *active*.

ANALYSIS METHODS

- Analysis sample is comprised of 8,657 men and 11,293 women who were living in the community in 1998.
- We use lMaCh (Interpolated Markov Chain) software to estimate total, active and inactive life expectancy by each religion indicator, using a multistate life table method.
- Models are stratified by sex.

SAMPLE DESCRIPTIVES

Transitions by Sample Persons				
	Active	Inactive	Dead	Total
Active	63,445	6,929	2,889	75,963
Inactive	5,795	15,570	5,255	26,620
Total	569,240	25,199	8,144	102,583

- We observe a total of 102,583 transitions in health status (including 8,144 deaths) between two successive survey waves from 1998-2012.
- 77 percent of the transitions begin and end in the same state (n=63,445 active to active, n=15,570 inactive to inactive).
- Excluding deaths, the number of transitions indicative of recovery is similar to the number indicative of decline.

Life Expectancy at Age 50 Comparisons: Published vs. Estimated from HRS

Source	Male	Female
2005 published	28.5	32.2
HRS (1998-2012)	28.8	32.7

- Estimates of total life expectancy based on HRS data from 1998-2012 are slightly higher than those based on published life tables for the mid-year of 2005, but the figures are very close.

Percentage Distributions for Religion Measures (weighted)

Religious affiliation	%	Frequency of attendance	%	Importance of religion	%
Protestant	62.5	More than once a week	13.9	Very important	61.5
Catholic	27.6	Once a week	24.6	Somewhat important	26.5
Jewish	2.5	2-3 times a month	12.2	Not too important	12.0
Other	1.4	One or more times a year	23.0		
No affiliation	6.0	Never	26.3		

- The vast majority report some religious affiliation, with most identifying as Protestant.
- Nearly two-fifths attended religious services at least once a week during the past year, whereas just over one-quarter never attended in the past year.
- Most individuals consider religion to be very or somewhat important.

RESULTS

Total, Active and Inactive Life Expectancy at Age 50, by Religious Affiliation				
Sex	Religious Affiliation	Total LE (se)	Active LE (se)	Inactive LE (se)
Male	Any affiliation	28.8 (0.204)	23.3 (0.184)	5.5 (0.100)
	No affiliation	28.6 (0.625)	23.1 (0.558)	5.5 (0.324)
	Any affiliation	32.8 (0.173)	24.8 (0.156)	7.9 (0.109)
Female	No affiliation	31.4 (0.815)	23.4 (0.669)	8.0 (0.514)
Male	Catholic	29.1 (0.352)	23.9 (0.352)	5.2 (0.173)
	Protestant	28.5 (0.243)	23.0 (0.243)	5.5 (0.119)
Female	Catholic	33.7 (0.313)	25.8 (0.313)	7.9 (0.203)
	Protestant	32.4 (0.201)	24.5 (0.201)	8.0 (0.120)

Total, Active and Inactive Life Expectancy at Age 50, by Religious Importance and Attendance

Sex	Religious Importance	Total LE (se)	Active LE (se)	Inactive LE (se)
Male	Very important	29.1 (0.263)	23.3 (0.235)	5.8 (0.136)
	Somewhat important	28.2 (0.324)	23.0 (0.289)	5.2 (0.160)
	Not important	28.8 (0.429)	23.8 (0.394)	5.0 (0.202)
Female	Very important	33.0 (0.197)	24.7 (0.179)	8.2 (0.129)
	Somewhat important	32.0 (0.337)	24.8 (0.298)	7.2 (0.206)
	Not important	32.3 (0.580)	25.2 (0.526)	7.1 (0.354)
Religious Attendance				
Male	At least once a week	31.4 (0.459)	25.1 (0.402)	6.4 (0.246)
	> 2-3 times a month	29.8 (0.443)	23.8 (0.380)	6.1 (0.232)
	Never	27.0 (0.426)	21.4 (0.386)	5.6 (0.223)
Female	At least once a week	35.7 (0.367)	27.1 (0.313)	8.6 (0.238)
	> 2-3 times a month	32.7 (0.413)	24.2 (0.334)	8.6 (0.272)
	Never	28.7 (0.421)	21.0 (0.380)	7.8 (0.268)

KEY FINDINGS

- Religious affiliation measured as any versus no affiliation is not significantly related to total, active or inactive life expectancy.
- Among those with an affiliation, however, Catholic women have significantly higher total and active life expectancy than Protestant women.
- Perceived importance of religion is not significantly related to life expectancies.
- More frequent attendance at religious services is significantly associated with higher total and active life expectancy but not inactive life expectancy.

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