The Religious Orders Study (ROS) and the Rush Memory and Aging Project (MAP) are two sister longitudinal studies developed and run at the Rush Alzheimer's Disease Center at Rush University in Chicago, IL. Started in 1994 and 1996 respectively, both studies enrolled non-demented older people following them with annual exams which focus on cognition and other health measures. All participants agree to brain donation at death when the investigators collect multiple pathological measures of neurodegeneration. More information on both studies can be found here (1, 2).

This dataset is a simulated version of data from these studies, using means, variances, frequencies and main effects taken from a subset of the true data to create a random dataset to be used for teaching purposes. Findings from this data will not match published findings exactly and cannot be used for publications. For those interested in working with this data on a research question should visit their data request website https://www.radc.rush.edu/ and submit a request.

Variable description and characteristics in the cross-sectional dataset (rm_xsect.csv)

Variable	**Description**	**Coding**	**Notes**
ranid	Random ID		
Age_death	Age at death	Continuous	
educ	Years of education	Continuous	
msex	Male sex	1= male 0 = female	
Apoe4d	Any or no *APOE* e4 alleles	0 = none 1 = 1 or 2 e4 alleles	
Cognitive measures			
global_bl	Global cognitive score at baseline	Z-score	Normalized to baseline cohort
global_lv	Global cognitive score at last visit	Z-score	Normalized to baseline cohort
globcog_slope	Linear slope of global cognitive score over length of study	continuous	Normalized to someone of same age, sex and education
Clinical Diagnoses			
cAD	Clinical diagnosis of AD	1 = clinical AD 0 = no AD	No AD includes MCI
cad_year	Study year of first AD diagnosis or censor	continuous	Visit cycle of first diagnosis or censor (last visit cycle without diagnosis)
Pathology measures			
gpath	Global pathology score	Continuous	Larger values are worse
pathoAD	Pathologic diagnosis of AD	1 = AD 0 = no AD	
nft	Average count of neurofibulary tangles	Continuous	
braaksc	Ordinal measure of neurofibulary tangles burden	0 = 0, 1 = I, 2 = II, 3 = III, 4= IV, 5 = V, 6 = VI	0 = none to VI = most
np	Average count of neuritic plaque burden	Continuous	
ceradsc	Ordinal measure of neuritic plaque burden	1 = definite AD 2 = probable 3 = Possible 4 = No AD	

Abbreviations: AD = Alzheimer's Disease, MCI = Mild Cognitive Impairment

1. Bennett DA, Schneider JA, Arvanitakis Z, Wilson RS. Overview and findings from the religious orders study. Curr Alzheimer Res. 2012;9(6):628-45.
2. Bennett DA, Schneider JA, Buchman AS, Barnes LL, Boyle PA, Wilson RS. Overview and findings from the rush Memory and Aging Project. Curr Alzheimer Res. 2012;9(6):646-63.