
title: "Divorce Analysis"
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output:
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Step One: Check for missing data

Step Two: Visually check distributions of variable responses

Step Three: Split data by ballot and into train-validate-test groups

Step Four: Analysis, logistic regression

Logistic Regression Estimates of Divorce

Dependent variable:

marital2

(1)

(2)

(3)

year

-0.02**

-0.005

-0.01

(0.01)

(0.01)

(0.01)

sexeducOPPOSE

-0.18

-0.41

(0.23)

(0.26)

regionMIDDLE ATLANTIC

-0.39

0.02

0.09

(0.49)

(0.48)

(0.47)

regionE. NOR. CENTRAL

-0.04

-0.32

-0.29

(0.49)

(0.49)

(0.48)

regionW. NOR. CENTRAL

0.42

-0.18

0.004

(0.52)

(0.52)

(0.50)

regionSOUTH ATLANTIC

-0.05

0.21

0.29

(0.46)

(0.46)

(0.45)

regionE. SOU. CENTRAL

0.63

0.09

0.12

(0.53)

(0.55)

(0.54)

regionW. SOU. CENTRAL

0.11

0.14

0.23

(0.52)

(0.50)

(0.49)

regionMOUNTAIN

-0.04
 -0.14
 -0.07
 (0.51)
 (0.51)
 (0.50)
 regionPACIFIC
 0.08
 -0.005
 0.04
 (0.48)
 (0.48)
 (0.47)
 premarsxALMST ALWAYS WRG
 -0.10
 0.30
 0.27
 (0.29)
 (0.27)
 (0.27)
 premarsxSOMETIMES WRONG
 -0.24
 0.11
 0.10
 (0.23)
 (0.22)
 (0.21)
 premarsxNOT WRONG AT ALL
 0.32
 0.23
 0.22
 (0.20)
 (0.20)
 (0.20)
 xmarsexALMST ALWAYS WRG
 0.15

(0.20)
 xmarsexSOMETIMES WRONG
 -0.16
 (0.28)
 xmarsexNOT WRONG AT ALL
 0.64
 (0.45)
 pornlawILLEGAL UNDER 18
 -0.17
 -0.15
 (0.14)
 (0.14)
 pornlawLEGAL
 0.75**
 0.79**
 (0.34)
 (0.34)
 partyidNOT STR DEMOCRAT
 -0.18
 0.15
 0.18
 (0.21)
 (0.20)
 (0.20)
 partyidIND,NEAR DEM
 -0.08
 0.01
 -0.002
 (0.23)
 (0.23)
 (0.23)
 partyidINDEPENDENT
 -0.18
 0.05
 0.14
 (0.23)

(0.22)

(0.22)

partyidIND,NEAR REP

0.16

-0.07

0.07

(0.26)

(0.25)

(0.25)

partyidNOT STR REPUBLICAN

-0.27

-0.37

-0.30

(0.23)

(0.24)

(0.23)

partyidSTRONG REPUBLICAN

-0.31

-0.44

-0.38

(0.27)

(0.28)

(0.28)

partyidOTHER PARTY

0.31

-0.08

-0.05

(0.42)

(0.50)

(0.49)

fundMODERATE

0.12

0.07

-0.003

(0.18)

(0.18)

(0.17)
 fundLIBERAL
 -0.01
 0.01
 -0.01
 (0.18)
 (0.19)
 (0.19)
 childs
 -0.06
 -0.13***
 -0.14***
 (0.04)
 (0.05)
 (0.05)
 degreeHIGH SCHOOL
 0.20
 0.78***
 0.77***
 (0.23)
 (0.23)
 (0.23)
 degreeJUNIOR COLLEGE
 0.30
 1.09***
 1.16***
 (0.30)
 (0.30)
 (0.29)
 degreeBACHELOR
 0.30
 0.77***
 0.77***
 (0.27)
 (0.28)
 (0.27)

degreeGRADUATE

0.16

0.46

0.46

(0.30)

(0.32)

(0.32)

Agecat1(25,35]

1.24**

0.60

0.76**

(0.52)

(0.38)

(0.37)

Agecat1(35,45]

1.91***

1.21***

1.38***

(0.52)

(0.38)

(0.37)

Agecat1(45,55]

1.90***

1.46***

1.58***

(0.53)

(0.39)

(0.38)

Agecat1(55,65]

2.04***

1.49***

1.59***

(0.54)

(0.41)

(0.40)

Agecat1(65,75]

2.33***
 1.34**
 1.46***
 (0.60)
 (0.53)
 (0.52)
 Agecat1(75,85]
 -12.30
 -0.38
 -0.20
 (375.57)
 (1.22)
 (1.21)
 Agecat1(85,95]
 -11.42
 -11.36
 (579.77)
 (585.89)
 widowedNO
 -0.13
 -0.34
 -0.44
 (0.40)
 (0.37)
 (0.36)
 wrkstatWORKING PARTTIME
 -0.79***
 -0.16
 -0.12
 (0.20)
 (0.20)
 (0.20)
 wrkstatTEMP NOT WORKING
 -0.37
 -0.06
 -0.08

(0.41)

(0.36)

(0.35)

wrkstatUNEMPL, LAID OFF

0.18

0.03

0.02

(0.37)

(0.31)

(0.31)

wrkstatKEEPING HOUSE

-1.64***

-1.20***

-1.08***

(0.26)

(0.24)

(0.23)

polviewsLIBERAL

-0.28

-0.32

-0.26

(0.36)

(0.38)

(0.37)

polviewsSLIGHTLY LIBERAL

-0.63*

-0.31

-0.25

(0.37)

(0.37)

(0.36)

polviewsMODERATE

-0.57

-0.36

-0.30

(0.35)

(0.35)

(0.34)

polviewsSLGHTLY CONSERVATIVE

-0.58

-0.54

-0.52

(0.37)

(0.37)

(0.37)

polviewsCONSERVATIVE

-0.69*

-0.55

-0.51

(0.38)

(0.39)

(0.38)

polviewsEXTRMLY CONSERVATIVE

-0.88*

-0.85

-0.88

(0.52)

(0.56)

(0.56)

happyPRETTY HAPPY

0.67***

0.63***

0.65***

(0.14)

(0.14)

(0.14)

happyNOT TOO HAPPY

1.30***

1.36***

1.43***

(0.25)

(0.23)

(0.22)
 trustCANNOT TRUST
 0.10
 0.07
 (0.15)
 (0.15)
 trustDEPENDS
 0.54*
 0.55*
 (0.30)
 (0.29)
 classWORKING CLASS
 -0.44
 -0.08
 -0.01
 (0.35)
 (0.29)
 (0.28)
 classMIDDLE CLASS
 -0.59
 -0.48
 -0.41
 (0.37)
 (0.31)
 (0.30)
 classUPPER CLASS
 -0.80
 -0.35
 -0.32
 (0.52)
 (0.46)
 (0.45)
 1000 TO 2999
 -3.15**
 -1.31
 -1.44

(1.40)
 (1.12)
 (1.10)
 3000 TO 3999
 -2.96**
 -1.73
 -1.69
 (1.41)
 (1.12)
 (1.12)
 4000 TO 4999
 -2.30
 0.30
 0.45
 (1.51)
 (1.42)
 (1.42)
 5000 TO 5999
 -2.17
 0.26
 0.36
 (1.37)
 (1.47)
 (1.49)
 6000 TO 6999
 -2.62*
 -0.06
 -0.09
 (1.37)
 (1.24)
 (1.24)
 7000 TO 7999
 -2.00
 -1.99*
 -1.93*
 (1.50)

(1.16)
 (1.14)
 8000 TO 9999
 -1.71
 -1.21
 -1.15
 (1.28)
 (1.01)
 (1.00)
 10000 - 14999
 -2.39**
 -1.19
 -1.14
 (1.22)
 (0.86)
 (0.85)
 15000 - 19999
 -2.59**
 -1.83**
 -1.85**
 (1.22)
 (0.86)
 (0.85)
 20000 - 24999
 -2.91**
 -1.98**
 -1.91**
 (1.21)
 (0.85)
 (0.84)
 25000 OR MORE
 -4.41***
 -3.13***
 -3.00***
 (1.20)
 (0.83)

(0.82)
 reg16NEW ENGLAND
 -0.07
 0.71
 0.80
 (0.55)
 (0.54)
 (0.53)
 reg16MIDDLE ATLANTIC
 0.40
 0.56
 0.54
 (0.41)
 (0.39)
 (0.39)
 reg16E. NOR. CENTRAL
 0.28
 0.86**
 0.85**
 (0.43)
 (0.39)
 (0.38)
 reg16W. NOR. CENTRAL
 -0.35
 0.67
 0.64
 (0.48)
 (0.47)
 (0.46)
 reg16SOUTH ATLANTIC
 0.50
 0.49
 0.46
 (0.41)
 (0.40)
 (0.40)

reg16E. SOU. CENTRAL

-0.27

1.01**

1.01**

(0.50)

(0.48)

(0.48)

reg16W. SOU. CENTRAL

0.63

0.68

0.60

(0.46)

(0.42)

(0.42)

reg16MOUNTAIN

0.30

0.72

0.64

(0.47)

(0.46)

(0.46)

reg16PACIFIC

-0.14

0.61

0.58

(0.42)

(0.39)

(0.38)

family16MOTHER

FATHER

0.19

-0.31

(0.37)

(0.36)

(0.36)

family16FATHER

STPMOTHER

0.30

0.79

(0.53)

(0.50)

(0.50)

family16MOTHER

STPFATHER

0.41

0.30

(0.43)

(0.42)

(0.41)

family16FATHER

0.56

-0.24

-0.17

(0.52)

(0.57)

(0.57)

family16MOTHER

0.50

-0.03

0.03

(0.40)

(0.39)

(0.38)

family16MALE RELATIVE

-0.55

-13.73

-0.18

(1.31)

(882.74)

(1.61)

family16FEMALE RELATIVE

0.79

0.52
 0.57
 (0.63)
 (0.62)
 (0.61)
 family16M AND F RELATIVES
 0.78
 0.0005
 -0.01
 (0.59)
 (0.52)
 (0.52)
 bornNO
 -0.004
 -0.03
 -0.08
 (0.41)
 (0.35)
 (0.34)
 parbornMOTHER ONLY
 -0.17
 -0.64
 -0.43
 (0.43)
 (0.44)
 (0.42)
 parbornFATHER ONLY
 0.06
 0.58
 0.53
 (0.46)
 (0.41)
 (0.40)
 parbornMOTHER; FA. DK
 0.54
 15.20

1.05
 (1.31)
 (882.74)
 (1.56)
 parbornNOT FATHER;MO.DK
 -15.34
 (1,455.40)
 parbornDK FOR BOTH
 14.42
 (1,455.40)
 parbornNOT MOTHER;FA.DK
 2.32
 2.10
 (1.61)
 (1.56)
 parbornFATHER; MO.DK
 1.28
 1.21
 (1.48)
 (1.47)
 parbornNEITHER IN U.S
 -0.40
 0.24
 0.28
 (0.35)
 (0.31)
 (0.31)
 size
 0.0001*
 0.0000
 0.0000
 (0.0001)
 (0.0001)
 (0.0001)
 attendLT ONCE A YEAR
 0.38

-0.21
 -0.16
 (0.24)
 (0.25)
 (0.24)
 attendONCE A YEAR
 -0.36*
 0.13
 0.14
 (0.21)
 (0.20)
 (0.20)
 attendSEVRL TIMES A YR
 -0.28
 0.08
 0.07
 (0.22)
 (0.22)
 (0.21)
 attendONCE A MONTH
 -0.40
 0.41
 0.37
 (0.26)
 (0.26)
 (0.26)
 attend2-3X A MONTH
 -0.55**
 -0.07
 -0.11
 (0.26)
 (0.24)
 (0.24)
 attendNRLY EVERY WEEK
 -0.93***
 0.03

-0.06
 (0.34)
 (0.34)
 (0.33)
 attendEVERY WEEK
 -0.70***
 -0.29
 -0.37
 (0.24)
 (0.24)
 (0.24)
 attendMORE THN ONCE WK
 -0.41
 -0.05
 -0.15
 (0.29)
 (0.32)
 (0.31)
 relig16CATHOLIC
 -0.24
 -0.17
 -0.15
 (0.17)
 (0.16)
 (0.16)
 relig16JEWISH
 -0.80
 -0.37
 -0.36
 (0.51)
 (0.47)
 (0.46)
 relig16NONE
 -0.04
 0.24
 0.12

(0.25)
 (0.25)
 (0.25)
 relig16OTHER
 0.48
 -0.38
 -0.32
 (0.95)
 (1.32)
 (1.31)
 relig16BUDDHISM
 -13.74
 -13.29
 -13.23
 (643.13)
 (608.12)
 (605.73)
 relig16HINDUISM
 2.04
 (2.10)
 relig16MOSLEM/ISLAM
 -13.18
 (1,016.98)
 relig16OTHER EASTERN
 -12.14
 -12.64
 (882.74)
 (882.74)
 relig16ORTHODOX-CHRISTIAN
 1.60
 1.58
 1.42
 (1.00)
 (1.13)
 (1.13)
 relig16CHRISTIAN

-0.21
 1.07**
 1.09**
 (0.50)
 (0.52)
 (0.52)
 relig16INTER-NONDENOMINATIONAL
 -14.60
 -14.48
 (437.89)
 (443.85)
 bibleINSPIRED WORD
 -0.18
 0.19
 0.18
 (0.16)
 (0.16)
 (0.16)
 bibleBOOK OF FABLES
 -0.24
 0.40*
 0.38*
 (0.22)
 (0.22)
 (0.21)
 bibleOTHER
 -0.30
 0.49
 0.39
 (0.58)
 (0.58)
 (0.57)
 helpfulLOOKOUT FOR SELF
 0.08
 0.07
 (0.14)

(0.14)
 helpfulDEPENDS
 -0.29
 -0.30
 (0.26)
 (0.25)
 fairFAIR
 0.05
 0.04
 (0.15)
 (0.15)
 fairDEPENDS
 0.05
 -0.04
 (0.27)
 (0.26)
 consciONLY SOME
 -0.05
 -0.06
 (0.13)
 (0.13)
 consciHARDLY ANY
 -0.36
 -0.33
 (0.28)
 (0.27)
 satjobMOD. SATISFIED
 -0.18
 -0.25*
 -0.28**
 (0.13)
 (0.13)
 (0.13)
 satjobA LITTLE DISSAT
 0.01
 -0.41*

-0.34
 (0.22)
 (0.22)
 (0.21)
 satjobVERY DISSATISFIED
 0.23
 0.01
 -0.14
 (0.33)
 (0.35)
 (0.34)
 satfinMORE OR LESS
 0.21
 0.18
 0.21
 (0.15)
 (0.15)
 (0.15)
 satfinNOT AT ALL SAT
 0.23
 0.12
 0.19
 (0.18)
 (0.19)
 (0.18)
 abnomoreNO
 0.19
 (0.22)
 absingleNO
 -0.14
 (0.23)
 xmovieNO
 -0.22
 -0.19
 (0.15)
 (0.14)

divlawMORE DIFFICULT	
-0.49***	
-0.64***	
-0.63***	
(0.15)	
(0.15)	
(0.15)	
divlawSTAY SAME	
-0.32*	
-0.33**	
-0.36**	
(0.17)	
(0.17)	
(0.16)	
fefamAGREE	
-0.18	
(0.26)	
fefamDISAGREE	
-0.09	
(0.25)	
fefamSTRONGLY DISAGREE	
-0.13	
(0.28)	
Constant	
44.08**	
10.03	
11.37	
(21.13)	
(21.34)	
(20.98)	
Observations	
1,947	
1,973	
2,012	
Log Likelihood	
-914.42	

-937.36

-965.08

Akaike Inf. Crit.

2,064.83

2,130.71

2,178.16

Note:

$p < 0.1$; $p < 0.05$; $p < 0.01$

Step Five: Analysis, decision trees

Step Six: Analysis, clusters

