

# Supplementary Appendix for “Estimating the Causal Effects of Social Interaction with Endogenous Networks”

Citation: Rogowski, Jon C. and Betsy Sinclair. 2012. “Estimating the Causal Effects of Social Interaction with Endogenous Networks.” *Political Analysis* 20: XXX-XXX.

Table A-1: Office Proximity and Roll Call Voting Behavior: Subsets of Votes

Independent Variables	First 150 Votes		
	(1)	(2)	(3)
Same building	0.04 (0.06)		
Same floor		0.03 (0.04)	
Same wing			0.08 (0.13)
Ideological similarity	-0.68 (0.10)	-0.68 (0.10)	-0.68 (0.10)
Same party	0.61 (0.02)	0.61 (0.02)	0.61 (0.02)
Same state	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)
(Constant)	-0.74 (0.04)	-0.73 (0.02)	-0.72 (0.02)
N	11599	11599	11599
MSE	0.18	0.18	0.18
Congress fixed effects	Yes	Yes	Yes
Clusters	403	403	403

Entries are second stage coefficients and clustered standard errors from instrumental variables estimation. The dependent variable is the logged agreement rate for the first 150 roll call votes of the term.

Table A-2: The Effects of Office Proximity Among “Compliers”

Office Proximity Measure	Roll Call Agreement Rates				Mutual Cosponsorship Rates			
	Lowest 20%	Lowest 30%	Lowest 40%	Lowest 50%	Lowest 20%	Lowest 30%	Lowest 40%	Lowest 50%
Same building	-1.01 (2.82)	-0.01 (0.35)	-0.19 (0.51)	-0.28 (0.35)	0.34 (1.02)	0.78 (1.15)	0.51 (1.17)	-0.31 (0.57)
Same floor	-0.24 (0.35)	-0.00 (0.20)	-0.08 (0.19)	-0.13 (0.14)	0.17 (0.42)	0.57 (0.64)	0.27 (0.60)	-0.26 (0.44)
Same wing	-1.37 (2.66)	-0.01 (0.55)	-0.26 (0.65)	-0.28 (0.30)	0.36 (0.91)	0.72 (0.82)	0.45 (1.03)	-0.38 (0.65)
N	369	857	1378	2090	209	484	785	1207

Each column of entries represents the second stage estimates for the effect of office proximity among legislators who drew lottery numbers in the lowest 20%, 30%, 40%, or 50% of their incoming cohort. Entries are coefficients and clustered standard errors estimated via instrumental variables using the same models shown in tables 4 (roll call behavior) and 6 (cosponsorship behavior).

Table A-3: Office Changers and Voting Behavior in the 110th and 111th House

Independent Variables	Roll Calls	Roll Calls
Building change	0.27 (0.07)	0.01 (0.00)
Agreement, 110th House	-0.15 (0.02)	-0.15 (0.07)
(Constant)	15.86 (0.93)	-1.25 (0.05)
N	64261	64261
$R^2$	0.20	0.08
MSE	4.37	0.18
Clusters	359	359

Entries are linear regression coefficients and clustered standard errors. The dependent variable in column 1 is  $(agreement_{t_{111}} - agreement_{t_{110}})$ , and the dependent variable in column 2 is  $\ln(agreement_{t_{111}} - agreement_{t_{110}} + 0.24)$ .

Table A-4: Office Proximity and Legislative Behavior in the 105th House

Independent Variables	Roll Calls	Cosponsorship
Same building	0.78 (0.20)	2.59 (0.71)
Ideological similarity (Presidential vote share)	-0.75 (0.06)	-0.97 (0.09)
Same party	33.53 (0.91)	57.22 (1.91)
Same state	-0.38 (0.92)	34.59 (2.56)
Year served together (decades)	-6.58 (1.66)	-1.95 (2.22)
Same cohort	3.24 (0.82)	5.85 (1.34)
Same religion	-2.05 (0.58)	4.04 (1.80)
Both female	-0.98 (1.15)	9.57 (1.90)
Both black	-2.31 (1.10)	9.54 (2.84)
Both Latino	-3.39 (1.53)	5.46 (5.73)
Both Asian American	3.42 (3.45)	34.01 (21.82)
Same college	0.70 (0.74)	2.77 (1.67)
Agricultural district	41.55 (22.65)	7.50 (18.52)
Military district	-20.33 (11.81)	-11.96 (13.31)
Shared military service	1.78 (1.01)	0.25 (0.81)
Same committee	2.80 (0.94)	9.09 (1.03)
(Constant)	-95.49 (0.77)	-536.03 (2.54)
N	90525	90525
MSE	23.68	57.13
Clusters	425	425

Entries are linear regression coefficients and clustered standard errors. The dependent variable in the first column is the logged roll call agreement rate (in percentage points)<sup>4</sup>, and the dependent variable in the second column is the logged cosponsorship agreement rate (in percentage points).