Comparing Dynamic Pies: A Strategy for Modeling Compositional Variables in Time and Space
Online Appendix

Christine S. Lipsmeyer[*]   Andrew Q. Philips[†]   Amanda Rutherford[‡]

Guy D. Whitten[§]

---

[*]Associate Professor, Department of Political Science, Texas A&M University, 2010 Allen Building, 4348 TAMU, College Station, TX 77843-4348 (lipsmeyer@pols.tamu.edu).

[†]Assistant Professor, Department of Political Science, University of Colorado Boulder, UCB 333, Boulder, CO 80309-0333 (andrew.philips@colorado.edu).

[‡]Assistant Professor, School of Public and Environmental Affairs, Indiana University, 1315 E 10th Street, Bloomington, IN 47405-1106 (aruther@indiana.edu).

[§]Professor, Department of Political Science, Texas A&M University, 2010 Allen Building, 4348 TAMU, College Station, TX 77843-4348 (g-whitten@pols.tamu.edu). Corresponding author.

Table 1: Results for the Budget Composition

	$\frac{Education}{Social Services}$ (1)	$\frac{Public Services}{Social Services}$ (2)	$\frac{Labor Market Pol.}{Social Services}$ (3)	$\frac{Other}{Social Services}$ (4)
Lagged Dependent Variable	-0.106***	-0.087***	-0.102***	-0.060***
	(0.014)	(0.011)	(0.013)	(0.010)
Lagged Dep. Var x	0.014	0.012	0.017	0.012
Democratic Governor	(0.017)	(0.014)	(0.017)	(0.014)
ΔUnemployment$_t$	0.026***	0.002	0.028***	-0.023***
	(0.008)	(0.005)	(0.006)	(0.007)
Unemployment$_{t-1}$	0.012***	-0.006**	0.010***	-0.017***
	(0.004)	(0.003)	(0.004)	(0.004)
Δ**W**·Unemployment$_t$	0.012***	-0.005***	0.007***	-0.017***
	(0.002)	(0.001)	(0.002)	(0.002)
W·Unemployment$_{t-1}$	0.000	-0.000	-0.002***	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
ΔPersonal Income$_t$	0.022***	0.009*	-0.024***	0.002
	(0.008)	(0.005)	(0.006)	(0.007)
Personal Income$_{t-1}$	-0.003***	-0.003***	0.003***	0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Δ(Democratic Governor$_t$ x	-0.000	-0.003	0.003	0.007
Unemployment$_t$)	(0.007)	(0.005)	(0.006)	(0.006)
Democratic Governor$_{t-1}$ x	0.003	0.001	0.003	0.006
Unemployment$_{t-1}$)	(0.006)	(0.004)	(0.005)	(0.005)
Δ(Democratic Governor$_t$ x	0.001	0.000	0.003**	0.001
W·Unemployment$_t$)	(0.002)	(0.001)	(0.001)	(0.001)
(Democratic Governor$_{t-1}$ x	0.001	-0.000	0.001	-0.000
W·Unemployment$_{t-1}$)	(0.001)	(0.001)	(0.001)	(0.001)
Δ(Democratic Governor$_t$ x	0.002	0.001	0.003*	0.002
Personal Income$_t$)	(0.002)	(0.001)	(0.002)	(0.002)
Democratic Governor$_{t-1}$ x	0.002	0.001	0.001	-0.001
Personal Income$_{t-1}$	(0.002)	(0.001)	(0.001)	(0.001)
ΔDemocratic Governor$_t$	-0.096	-0.033	-0.202***	-0.126
	(0.093)	(0.059)	(0.070)	(0.080)
Democratic Governor$_{t-1}$	-0.114	-0.014	-0.036	0.006
	(0.071)	(0.046)	(0.059)	(0.062)
Constant	0.026	0.038	-0.187***	0.043
	(0.050)	(0.031)	(0.043)	(0.041)
N	1536	1536	1536	1536
States	48	48	48	48
R-Sq.	0.17	0.11	0.26	0.24
χ^2	413.17***	187.17***	557.42***	502.03***

Note: Regression with standard errors in parentheses. Two-tail tests. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$