Supplementary Materials for "The Importance of Breaking Even: How Local and Aggregate Returns Make Politically Feasible Policies"

Contents

A Supplementary Tables for Experiment 1

Table A1: Effect of District and City-Wide Returns on Incumbent Evaluations with Returns as Categorical Variables

	Incumbent Evaluations (-1 to 1)
District Payoff Categories: -$25 per capita	0.112
	(0.092)
District Payoff Categories: -$10 per capita	0.130
	(0.089)
District Payoff Categories: -$5 per capita	0.223*
	(0.086)
District Payoff Categories: -$1 per capita	0.239**
	(0.081)
District Payoff Categories: $0 per capita	0.419***
	(0.082)
District Payoff Categories: $1 per capita	0.458***
	(0.079)
District Payoff Categories: $5 per capita	0.493***
	(0.083)
District Payoff Categories: $10 per capita	0.564***
	(0.083)
District Payoff Categories: $25 per capita	0.527***
	(0.085)
District Payoff Categories: $50 per capita	0.610***
	(0.081)
City Payoff Categories: -$40 per capita	0.059
	(0.128)
City Payoff Categories: -$30 per capita	0.059
	(0.124)
City Payoff Categories: -$25 per capita	0.148
	(0.119)
City Payoff Categories: -$20 per capita	0.122
	(0.111)
City Payoff Categories: -$15 per capita	0.070
	(0.108)
City Payoff Categories: -$10 per capita	0.159
	(0.106)
City Payoff Categories: -$5 per capita	0.113
	(0.106)

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Table A1 – continued from previous page

	Incumbent Evaluations (-1 to 1)
City Payoff Categories: -\$1 per capita	0.329^{**}
	(0.116)
City Payoff Categories: -\$0.1 per capita	0.258^{*}
	(0.113)
City Payoff Categories: \$0 per capita	0.388^{***}
	(0.108)
City Payoff Categories: \$0.1 per capita	0.327^{**}
	(0.110)
City Payoff Categories: \$1 per capita	0.347^{***}
	(0.102)
City Payoff Categories: \$5 per capita	0.504^{***}
	(0.108)
City Payoff Categories: \$10 per capita	0.560^{***}
	(0.109)
City Payoff Categories: \$15 per capita	0.563^{***}
	(0.106)
City Payoff Categories: \$20 per capita	0.507^{***}
	(0.106)
City Payoff Categories: \$25 per capita	0.342^{**}
	(0.108)
City Payoff Categories: \$30 per capita	0.515^{***}
	(0.114)
City Payoff Categories: \$40 per capita	0.534^{***}
	(0.106)
City Payoff Categories: \$50 per capita	0.591^{***}
	(0.105)
Vignette 2	-0.118^{***}
	(0.031)
Vignette 3	-0.066^{*}
	(0.031)
Constant	-0.464^{***}
	(0.110)
R^2	0.179
Observations	1487
Respondents	496

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table A2: Model for Simulated Electoral Tradeoffs when City Per Capita Return is Greater than 0, Experiment 1 (Table 2)

	Vote for Incumbent vs. Challenger (0 or 100)
District At Least Breaks Even (District ≥ 0)	24.257^{***}
	(6.163)
District Benefits (District > 0)	2.611
	(6.528)
District Returns Per Capita	0.131
	(0.117)
District Worse Off than City	-5.476
	(6.213)
City Returns Per Capita	0.069
	(0.121)
Vignette 2	1.381
	(4.118)
Vignette 3	-0.505
	(3.983)
Constant	38.324^{***}
	(6.297)
R^2	0.107
Observations	711
Respondents	436

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table A3: Summary Statistics for Experiment 1

Variable	Mean	SD	Min	Max
Incumbent Evaluation	0.137	0.653	-1	1
Vote for Incumbent	0.141	0.589	-1	1
Project Evaluation	0.143	0.666	-1	1
District At Least Breaks Even (District ≥ 0)	0.578	0.494	0	1
District Benefits (District > 0)	0.454	0.498	0	1
City At Least Breaks Even (City ≥ 0)	0.525	0.500	0	1
City Benefits (City > 0)	0.478	0.500	0	1
District Worse Off than City	0.465	0.499	0	1
City Returns Per Capita	0.125	23.628	-50	50
District Returns Per Capita	0.786	22.563	-50	50

Table A4: Akaike Information Criterion (AIC) by City and District Cutpoints, Experiment 1

	−\$625K	−\$250K	−\$125K	−\$25K	\$0	\$25K	\$125K	\$250K	\$625K
−\$10M	2751.835	2741.681	2737.189	2722.278	**2721.906**	2735.898	2744.931	2745.048	2745.280
−\$7.5M	2751.655	2741.567	2737.037	2722.209	**2721.850**	2735.806	2744.751	2744.936	2745.150
−\$6.25M	2752.705	2742.270	2737.908	2722.865	**2722.486**	2736.632	2745.879	2745.839	2746.214
−\$5M	2752.637	2742.152	2737.762	2722.815	**2722.446**	2736.560	2745.808	2745.716	2746.077
−\$3.75M	2748.759	2737.883	2734.057	2719.314	**2718.894**	2732.801	2741.995	2741.872	2742.297
−\$2.5M	2747.104	2736.398	2732.290	2718.347	**2718.174**	2731.859	2740.998	2740.504	2740.427
−\$1.25M	2735.312	2725.566	2721.596	2707.728	**2707.341**	2720.317	2729.395	2728.901	2729.334
−\$250K	2735.254	2725.556	2721.640	2708.084	**2707.763**	2720.604	2729.575	2728.849	2729.183
−\$25K	2734.625	2725.545	2721.453	2707.851	**2707.555**	2720.473	2729.444	2728.008	2728.625
\$0	2735.162	2726.109	2721.961	2708.296	**2708.035**	2721.092	2730.061	2728.405	2729.079
\$25K	2738.822	2730.335	2725.889	2712.104	**2711.866**	2724.971	2733.637	2732.102	2732.653
\$250K	2740.488	2731.820	2726.898	2713.132	**2713.001**	2726.334	2735.310	2734.116	2734.396
\$1.25M	2742.639	2733.112	2727.880	**2713.655**	2713.766	2728.155	2737.215	2736.149	2736.472
\$2.5M	2745.092	2735.592	2731.236	2717.243	**2716.930**	2730.205	2739.224	2739.032	2739.053
\$3.75M	2746.741	2735.784	2731.817	2717.187	**2716.843**	2730.761	2739.981	2739.686	2740.379
\$5M	2745.127	2734.801	2730.202	2715.705	**2715.618**	2729.880	2738.626	2738.006	2739.052
\$6.25M	2744.689	2734.598	2729.866	2714.936	**2714.750**	2729.226	2738.096	2737.238	2738.469
\$7.5M	2750.425	2739.722	2735.356	2721.007	**2720.787**	2734.730	2743.965	2743.930	2744.280
\$10M	2750.542	2739.913	2735.608	2721.078	**2720.795**	2734.661	2744.183	2744.005	2744.282

Note: Cells represent the AIC for each model with the given city and district cutpoint dummy variables, with the rows representing city cutpoint values and the columns representing district cutpoint values. The model estimated was Incumbent Evaluation = $\beta_0 + \beta_1\times$District Above Cutpoint$+\beta_2\times$District At or Above Cutpoint$+\beta_3\times$Aggregate Above Cutpoint$+\beta_4\times$Aggregate At or Above Cutpoint$+\beta_5\times$District Per Capita Less than City Per Capita$+\beta_6\times$City Returns Per Capita$+\beta_7\times$District Returns Per Capita$+\epsilon$. Bold values indicate lowest AIC (i.e. best fitting) model for each given set of city cutpoints.

Table A5: Heterogeneous Effect of District and City-Wide Returns on Incumbent Evaluations by Key Demographic Groups, Experiment 1

	Incumbent Evaluations (−1 to 1)	Incumbent Evaluations (−1 to 1)	Incumbent Evaluations (−1 to 1)	Incumbent Evaluations (−1 to 1)	Incumbent Evaluations (−1 to 1)
District At Least Breaks Even (District ≥ 0)	0.199***	0.148	0.183	0.201**	0.293*
	(0.056)	(0.118)	(0.094)	(0.067)	(0.133)
District Benefits (District > 0)	0.053	0.133	0.119	0.033	−0.022
	(0.057)	(0.108)	(0.091)	(0.065)	(0.124)
District Returns Per Capita	0.004***	0.003***	0.004**	0.003***	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
District Worse Off than City	−0.029	−0.028	−0.022	−0.028	−0.025
	(0.053)	(0.052)	(0.052)	(0.052)	(0.052)
City At Least Breaks Even (City ≥ 0)	0.176*	0.182*	0.179*	0.181*	0.178*
	(0.076)	(0.076)	(0.076)	(0.076)	(0.076)
City Benefits (City > 0)	0.018	0.013	0.017	0.014	0.009
	(0.076)	(0.076)	(0.076)	(0.076)	(0.076)
City Returns Per Capita	0.004***	0.004***	0.004***	0.004***	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Party (7-Point Scale)	−0.006	−0.001			
	(0.010)	(0.016)			
District At Least Breaks Even × Party		0.014			
		(0.025)			
District Benefits × Party		−0.022			
		(0.023)			
Household Income (24-Point Scale)	0.005		0.006		
	(0.004)		(0.006)		
District At Least Breaks Even × HHI			0.003		
			(0.009)		
District Benefits × HHI			−0.008		
			(0.009)		
Non-White	−0.006			−0.030	
	(0.047)			(0.064)	
District At Least Breaks Even × Non-White				0.012	
				(0.118)	
District Benefits × Non-White				0.042	
				(0.118)	
Education (8-Point Scale)	−0.002				0.009
	(0.012)				(0.018)
District At Least Breaks Even × Education					−0.021
					(0.029)
District Benefits × Education					0.016
					(0.027)
Vignette 2	−0.109***	−0.106***	−0.116***	−0.107***	−0.103***
	(0.031)	(0.030)	(0.031)	(0.031)	(0.031)
Vignette 3	−0.065*	−0.061*	−0.068*	−0.061*	−0.059*
	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)
Constant	−0.044	−0.032	−0.092	−0.028	−0.075
	(0.081)	(0.077)	(0.065)	(0.053)	(0.087)
R^2	0.172	0.167	0.172	0.166	0.167
Observations	1455	1487	1461	1487	1479
Respondents	485	496	487	496	493

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.
Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table A6: Likelihood Ratio Tests, Experiment 1

	χ^2	p-value
City Return Treatment	133.314	0.643
District Return Treatment	67.296	0.569

Note: We conduct a multinomial logistic regression of the treatment variable on covariates party identification, household income, race, education, and region of the survey taker to test if our treatments of city and district net return were associated with any key covariates. We then conducted a likelihood ratio test of this model with the null model for each treatment variable outcome. Each column reflects the likelihood ratio difference between a saturated and null model, as well as the p-value for rejecting the null hypothesis. Since we fail to reject the null for both variables, we are unable to say there is a significant association between our treatment variables and these covariates.

Table A7: Effect of District Returns on Incumbent Evaluations by City Outcome, Experiment 1

	Incumbent Evaluations (-1 to 1)	Incumbent Evaluations with Covariates (-1 to 1)
District At Least Breaks Even (District ≥ 0)	0.039	0.037
	(0.094)	(0.095)
District Benefits (District > 0)	0.104	0.105
	(0.092)	(0.093)
District Returns Per Capita	0.002	0.002
	(0.001)	(0.001)
District Worse Off than City	-0.008	-0.013
	(0.053)	(0.053)
City At Least Breaks Even (City ≥ 0)	0.052	0.054
	(0.073)	(0.074)
City Returns Per Capita	0.004^{***}	0.004^{***}
	(0.001)	(0.001)
District At Least Breaks Even $\times$ City At Least Breaks Even	0.305^{**}	0.291^{*}
	(0.111)	(0.113)
District Benefits $\times$ City At Least Breaks Even	-0.100	-0.073
	(0.109)	(0.111)
District Returns Per Capita $\times$ City At Least Breaks Even	0.004^{*}	0.004^{*}
	(0.002)	(0.002)
Vignette 2	-0.105^{***}	-0.107^{***}
	(0.030)	(0.031)
Vignette 3	-0.055	-0.061^{*}
	(0.030)	(0.030)
Constant	0.023	0.098
	(0.056)	(0.092)
R^2	0.185	0.195
Observations	1487	1455
Respondents	496	485

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent. Covariates included in Column 2 include party identification, household income, education level, geographic region, and race.

Table A8: Effect of Districts and City Returns when Returns are Substantial and Positive, Experiment 1

	Incumbent Evaluations (-1 to 1)
District At Least Breaks Even (District ≥ 0)	0.189^{**}
	(0.059)
District Benefits (District > 0)	0.045
	(0.058)
District Returns Per Capita	0.005^{**}
	(0.002)
District Worse Off than City	-0.005
	(0.053)
City At Least Breaks Even (City ≥ 0)	0.185^{***}
	(0.051)
City Returns Per Capita	0.004^{**}
	(0.001)
District Return is Substantial and Positive	0.053
	(0.059)
Substantial District Return $\times$ City Returns PC	0.002
	(0.002)
Substantial District Return $\times$ District Returns PC	-0.003
	(0.002)
Vignette 2	-0.105^{***}
	(0.031)
Vignette 3	-0.060
	(0.030)
Constant	-0.028
	(0.051)
R^2	0.169
Observations	1487
Respondents	496

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent. Substantial district returns are those that are greater than 10.

Table A9: Effect of District and City Net Returns when the City Per Capita Return is Greater than the District Per Capita Return, Experiment 1

	Incumbent Evaluations (−1 to 1)
District At Least Breaks Even (District ≥ 0)	0.354^{***}
	(0.069)
District Benefits (District > 0)	0.003
	(0.067)
District Returns Per Capita	0.005^{**}
	(0.002)
City At Least Breaks Even (City ≥ 0)	−0.104
	(0.144)
City Benefits (City > 0)	0.098
	(0.130)
City Returns Per Capita	0.003^{*}
	(0.001)
Vignette 2	−0.069
	(0.049)
Vignette 3	−0.022
	(0.050)
Constant	0.070
	(0.093)
R^2	0.194
Observations	692
Respondents	436

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table A10: Effect of District and City-Wide Returns on Incumbent Evaluations by Round, Experiment 1

	Round 1	Round 2	Round 3
District At Least Breaks Even (District ≥ 0)	0.128	0.352^{***}	0.129
	(0.093)	(0.090)	(0.101)
District Benefits (District > 0)	-0.032	-0.078	0.257^{**}
	(0.096)	(0.089)	(0.095)
District Returns Per Capita	0.002	0.004^{*}	0.004^{*}
	(0.002)	(0.002)	(0.002)
District Worse Off than City	-0.172	0.016	0.062
	(0.090)	(0.089)	(0.094)
City At Least Breaks Even (City ≥ 0)	0.390^{**}	-0.019	0.249^{*}
	(0.126)	(0.138)	(0.113)
City Benefits (City > 0)	-0.189	0.292^{*}	-0.124
	(0.125)	(0.134)	(0.113)
City Returns Per Capita	0.004^{*}	0.003	0.006^{**}
	(0.002)	(0.002)	(0.002)
Constant	0.098	-0.227^{**}	-0.163^{*}
	(0.072)	(0.080)	(0.080)
R^2	0.101	0.189	0.244
Observations	496	496	495

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: The dependent variable in each column is Incumbent Evaluation, coded -1 to 1. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

B Supplementary Tables for Experiment R1

Table B1: Effect of District and City-Wide Returns on Evaluations, Experiment R1

	Incumbent Evaluations (-1 to 1)	Vote for Incumbent vs. Challenger (-1 to 1)	Project Evaluation (-1 to 1)
District At Least Breaks Even (District ≥ 0)	0.123***	0.085**	0.127***
	(0.030)	(0.029)	(0.030)
District Benefits (District > 0)	0.129***	0.087**	0.096**
	(0.031)	(0.029)	(0.030)
District Returns Per Capita	0.004***	0.003***	0.004***
	(0.001)	(0.001)	(0.001)
District Worse Off than City	0.048	0.017	0.052
	(0.032)	(0.030)	(0.032)
City At Least Breaks Even (City ≥ 0)	0.177***	0.085*	0.178***
	(0.039)	(0.037)	(0.040)
City Benefits (City > 0)	0.027	0.081*	0.053
	(0.041)	(0.039)	(0.041)
City Returns Per Capita	0.003***	0.002***	0.003***
	(0.001)	(0.001)	(0.001)
Vignette 2	-0.089***	-0.062***	-0.114***
	(0.019)	(0.017)	(0.018)
Vignette 3	-0.090***	-0.057***	-0.116***
	(0.019)	(0.017)	(0.019)
Constant	-0.013	0.041	0.007
	(0.030)	(0.027)	(0.031)
R^2	0.147	0.099	0.153
Observations	4348	4348	4348
Respondents	1452	1452	1452

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table B2: Model for Simulated Electoral Tradeoffs when City Per Capita Return is Greater than 0, Experiment R1 (Table B3)

	Vote for Incumbent vs. Challenger (0 or 100)
District At Least Breaks Even (District ≥ 0)	12.359^{***}
	(3.582)
District Benefits (District > 0)	2.061
	(3.817)
District Returns Per Capita	0.377^{***}
	(0.070)
District Worse Off than City	6.323
	(3.829)
City Returns Per Capita	-0.051
	(0.072)
Vignette 2	-1.628
	(2.375)
Vignette 3	4.259
	(2.343)
Constant	42.416^{***}
	(3.914)
R^2	0.067
Observations	2061
Respondents	1273

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table B3: Simulated Electoral Tradeoffs from Side Payoffs when City-Wide Per Capita Returns are \$1, Experiment R1

	Initial Losing Coalition (4 – 6)	New Winning Coalitions (6 – 4 and 10 – 0)	
	4 Winners ($4 district return) 0 Break Even ($0 district return) 6 Losers (−$1 district return)	4 Winners ($3.5 district return) 2 Break Even ($0 district return) 4 Losers (−$1 district return)	4 Winners ($2.5 district return) 6 Break Even ($0 district return) 0 Losers (−$1 district return)
Support in Winning Districts	58.29% (4)	58.10% (4)	57.73% (4)
Support in Break Even Districts	N/A (0)	61.05% (2)	61.05% (6)
Support in Losing Districts	48.31% (6)	48.31% (4)	N/A (0)

Note: This table presents the predicted electoral outcomes estimated from Table B2. We assume a 10-district city passes a policy that has a per capita net return of \$1 to the city as a whole. By type (winning, break even, losing), all districts are assumed to have the same net return. Districts that come out behind have a per capita net return of −\$1. In column 1, we present the vote share in which 4 districts come out ahead with a per capita net return of \$4. In column 2, the 4 councilors from the winning districts provide payoffs to 2 losing districts so that they reach a per capita return of \$0, to create a minimum winning coalition of 6. In column 3, the councilors provide payoffs to 6 losing districts to create a universal coalition of 10.

Table B4: Akaike Information Criterion (AIC) by City and District Cutpoints, Experiment R1

	−\$625K	−\$250K	−\$125K	−\$25K	\$0	\$25K	\$125K	\$250K	\$625K
−\$10M	8105.240	8116.591	8096.010	8056.825	**8040.698**	8057.521	8096.397	8102.626	8119.096
−\$7.5M	8104.119	8115.522	8094.964	8056.011	**8039.958**	8056.775	8095.684	8101.416	8118.111
−\$6.25M	8101.330	8112.994	8092.687	8053.797	**8037.970**	8054.793	8093.281	8098.831	8115.474
−\$5M	8103.091	8114.347	8094.001	8055.167	**8039.309**	8056.115	8094.521	8100.665	8116.778
−\$3.75M	8090.722	8101.563	8081.984	8043.677	**8027.632**	8043.927	8082.301	8088.599	8104.408
−\$2.5M	8076.476	8087.106	8067.731	8030.818	**8016.797**	8033.791	8070.042	8075.907	8090.049
−\$1.25M	8051.399	8062.418	8043.802	8009.227	**7995.642**	8011.495	8046.130	8052.120	8065.574
−\$250K	8047.363	8058.266	8040.101	8006.450	**7993.020**	8008.550	8042.853	8048.111	8061.427
−\$25K	8047.362	8058.896	8040.837	8007.262	**7992.905**	8007.714	8042.516	8048.362	8062.343
\$0	8051.172	8063.188	8044.700	8010.239	**7995.391**	8010.216	8045.393	8052.320	8066.678
\$25K	8069.764	8081.580	8062.305	8026.571	**8011.565**	8026.985	8062.886	8069.762	8084.268
\$250K	8089.853	8101.750	8081.564	8043.814	**8028.083**	8044.001	8081.060	8087.893	8103.996
\$1.25M	8096.409	8108.212	8087.813	8049.256	**8033.088**	8049.380	8087.830	8094.349	8110.328
\$2.5M	8099.704	8110.895	8090.727	8051.796	**8036.265**	8053.336	8091.572	8097.467	8113.375
\$3.75M	8092.928	8103.691	8084.207	8045.644	**8029.148**	8045.152	8083.715	8089.625	8106.072
\$5M	8093.812	8104.473	8085.035	8046.393	**8030.389**	8046.907	8085.325	8091.466	8106.863
\$6.25M	8088.104	8098.938	8079.173	8041.457	**8026.413**	8043.082	8080.423	8085.676	8101.374
\$7.5M	8088.319	8099.164	8079.252	8041.469	**8026.455**	8043.192	8080.498	8085.727	8101.574
\$10M	8092.700	8103.409	8082.986	8044.988	**8029.107**	8045.310	8083.211	8089.615	8105.601

Note: Cells represent the AIC for each model with the given city and district cutpoint dummy variables, with the rows representing city cutpoint values and the columns representing district cutpoint values. The model estimated was Incumbent Evaluation = $\beta_0 + \beta_1\times$District Above Cutpoint$+\beta_2\times$District At or Above Cutpoint$+\beta_3\times$Aggregate Above Cutpoint$+\beta_4\times$Aggregate At or Above Cutpoint$+\beta_5\times$District Per Capita Less than City Per Capita$+\beta_6\times$City Returns Per Capita$+\beta_7\times$District Returns Per Capita$+\epsilon$. Bold values indicate lowest AIC (i.e. best fitting) model for each given set of city cutpoints.

Table B5: Likelihood Ratio Tests, Experiment R1

	χ^2	p-value
City Return Treatment	142.938	0.415
District Return Treatment	57.168	0.865

Note: We conduct a multinomial logistic regression of the treatment variable on covariates party identification, household income, race, education, and region of the survey taker to test if our treatments of city and district net return were associated with any key covariates. We then conducted a likelihood ratio test of this model with the null model for each treatment variable outcome. Each column reflects the likelihood ratio difference between a saturated and null model, as well as the p-value for rejecting the null hypothesis. Since we fail to reject the null for both variables, we are unable to say there is a significant association between our treatment variables and these covariates.

C Supplementary Tables for Experiment R2

Table C1: Effect of District and County-Wide Returns on Evaluations, Experiment R2

	Incumbent Evaluations (-1 to 1)	Vote for Incumbent vs. Challenger (-1 to 1)	Project Evaluation (-1 to 1)
District At Least Breaks Even (District $\geq$ 0)	0.238^{***}	0.184^{***}	0.239^{***}
	(0.018)	(0.015)	(0.017)
District Benefits (District $>$ 0)	0.136^{***}	0.103^{***}	0.118^{***}
	(0.018)	(0.017)	(0.018)
District Worse Off than County	-0.018	-0.039	-0.012
	(0.022)	(0.020)	(0.022)
District Returns Per Capita	0.005^{***}	0.003^{***}	0.005^{***}
	(0.000)	(0.000)	(0.000)
County Returns Per Capita	0.001^{*}	0.001	0.001
	(0.000)	(0.000)	(0.000)
Vignette 2	-0.065^{***}	-0.036^{*}	-0.085^{***}
	(0.018)	(0.017)	(0.018)
Vignette 3	-0.089^{***}	-0.041^{*}	-0.082^{***}
	(0.019)	(0.017)	(0.019)
Vignette 4	-0.061^{**}	-0.037^{*}	-0.079^{***}
	(0.019)	(0.017)	(0.018)
Vignette 5	-0.064^{**}	-0.028	-0.091^{***}
	(0.020)	(0.018)	(0.019)
Constant	0.162^{***}	0.109^{***}	0.210^{***}
	(0.026)	(0.024)	(0.026)
R^2	0.172	0.133	0.163
Observations	5079	5079	5079
Respondents	1018	1018	1018

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table C2: Effect of District and State-Wide Returns on Evaluations, Experiment R2

	Incumbent Evaluations (-1 to 1)	Vote for Incumbent vs. Challenger (-1 to 1)	Project Evaluation (-1 to 1)
District At Least Breaks Even (District ≥ 0)	0.275^{***}	0.176^{***}	0.273^{***}
	(0.018)	(0.016)	(0.018)
District Benefits (District > 0)	0.117^{***}	0.092^{***}	0.091^{***}
	(0.019)	(0.018)	(0.019)
District Worse Off than State	-0.028	-0.032	-0.034
	(0.024)	(0.022)	(0.024)
District Returns Per Capita	0.004^{***}	0.003^{***}	0.004^{***}
	(0.000)	(0.000)	(0.000)
State Returns Per Capita	0.001^{*}	0.001^{*}	0.001^{**}
	(0.000)	(0.000)	(0.000)
Vignette 2	-0.030	-0.017	-0.050^{**}
	(0.018)	(0.016)	(0.017)
Vignette 3	-0.016	-0.015	-0.064^{***}
	(0.019)	(0.017)	(0.019)
Vignette 4	-0.068^{***}	-0.050^{**}	-0.100^{***}
	(0.020)	(0.017)	(0.019)
Vignette 5	-0.070^{***}	-0.049^{**}	-0.107^{***}
	(0.020)	(0.018)	(0.020)
Constant	0.118^{***}	0.089^{***}	0.193^{***}
	(0.028)	(0.025)	(0.028)
R^2	0.157	0.111	0.148
Observations	4923	4923	4923
Respondents	985	985	985

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table C3: Effect of District and Aggregate-Wide Returns on Evaluations with State Interactions, Experiment R2

	Incumbent Evaluations (-1 to 1)	Vote for Incumbent vs. Challenger (-1 to 1)	Project Evaluation (-1 to 1)
District At Least Breaks Even (District ≥ 0)	0.238^{***}	0.184^{***}	0.239^{***}
	(0.018)	(0.015)	(0.017)
District Benefits (District > 0)	0.136^{***}	0.103^{***}	0.118^{***}
	(0.018)	(0.017)	(0.018)
District Worse Off than Aggregate	-0.018	-0.039	-0.012
	(0.022)	(0.020)	(0.022)
District Returns Per Capita	0.005^{***}	0.003^{***}	0.005^{***}
	(0.000)	(0.000)	(0.000)
Aggregate Returns Per Capita	0.001^{*}	0.001	0.001
	(0.000)	(0.000)	(0.000)
Vignette 2	-0.065^{***}	-0.036^{*}	-0.085^{***}
	(0.018)	(0.017)	(0.018)
Vignette 3	-0.089^{***}	-0.041^{*}	-0.082^{***}
	(0.019)	(0.017)	(0.019)
Vignette 4	-0.061^{**}	-0.037^{*}	-0.079^{***}
	(0.019)	(0.017)	(0.018)
Vignette 5	-0.064^{**}	-0.028	-0.091^{***}
	(0.020)	(0.018)	(0.019)
State	-0.044	-0.020	-0.017
	(0.039)	(0.034)	(0.038)
State x District At Least Breaks Even	0.036	-0.008	0.034
	(0.026)	(0.021)	(0.025)
State x District Benefits	-0.019	-0.011	-0.027
	(0.026)	(0.025)	(0.026)
State x District Worse Off than Aggregate	-0.011	0.007	-0.023
	(0.033)	(0.030)	(0.032)
State x District Returns Per Capita	-0.001	-0.001	-0.001^{*}
	(0.001)	(0.001)	(0.001)
State x Aggregate Returns Per Capita	-0.000	0.000	0.000
	(0.001)	(0.000)	(0.001)
State x Vignette 2	0.036	0.019	0.035
	(0.026)	(0.023)	(0.025)
State x Vignette 3	0.073^{**}	0.025	0.018
	(0.027)	(0.024)	(0.026)
State x Vignette 4	-0.007	-0.013	-0.020
	(0.027)	(0.024)	(0.026)
State x Vignette 5	-0.006	-0.021	-0.016
	(0.028)	(0.025)	(0.027)
Constant	0.162^{***}	0.109^{***}	0.210^{***}
	(0.026)	(0.024)	(0.026)
R^2	0.165	0.123	0.156
Observations	10002	10002	10002
Respondents	2003	2003	2003

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.
Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table C4: Effect of District and Aggregate-Wide Returns on Evaluations with Fixed Effects by Individual as Unit (Within Person Analysis), Experiment R2

	Incumbent Evaluations (-1 to 1)	Vote for Incumbent vs. Challenger (-1 to 1)	Project Evaluation (-1 to 1)
District At Least Breaks Even (District ≥ 0)	0.254^{***}	0.179^{***}	0.255^{***}
	(0.013)	(0.011)	(0.012)
District Benefits (District > 0)	0.114^{***}	0.088^{***}	0.095^{***}
	(0.012)	(0.012)	(0.012)
District Worse Off than Aggregate	-0.038^{**}	-0.048^{***}	-0.036^{*}
	(0.015)	(0.013)	(0.014)
District Returns Per Capita	0.005^{***}	0.003^{***}	0.004^{***}
	(0.000)	(0.000)	(0.000)
Aggregate Returns Per Capita	0.001^{***}	0.001^{**}	0.001^{***}
	(0.000)	(0.000)	(0.000)
Vignette 2	-0.047^{***}	-0.027^{*}	-0.067^{***}
	(0.013)	(0.012)	(0.012)
Vignette 3	-0.053^{***}	-0.028^{*}	-0.073^{***}
	(0.013)	(0.012)	(0.013)
Vignette 4	-0.064^{***}	-0.044^{***}	-0.089^{***}
	(0.014)	(0.012)	(0.013)
Vignette 5	-0.067^{***}	-0.039^{**}	-0.099^{***}
	(0.014)	(0.013)	(0.014)
Observations	10002	10002	10002
Respondents	2003	2003	2003
R^2 (full model)	0.611	0.572	0.618
R^2 (proj model)	0.297	0.223	0.289

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table C5: Effect of District and Aggregate-Wide Returns on Evaluations Subsetted for Vignettes 1 and 2, Experiment R2

	Incumbent Evaluations (-1 to 1)	Vote for Incumbent vs. Challenger (-1 to 1)	Project Evaluation (-1 to 1)
District At Least Breaks Even (District ≥ 0)	0.160^{***}	0.098^{***}	0.167^{***}
	(0.025)	(0.021)	(0.024)
District Benefits (District > 0)	0.068^{*}	0.079^{**}	0.039
	(0.028)	(0.025)	(0.027)
District Worse Off than Aggregate	-0.023	-0.005	-0.026
	(0.029)	(0.026)	(0.029)
District Returns Per Capita	0.004^{***}	0.003^{***}	0.004^{***}
	(0.001)	(0.001)	(0.001)
Aggregate Returns Per Capita	0.001^{*}	0.001	0.001^{**}
	(0.001)	(0.000)	(0.001)
Vignette 2	-0.043^{***}	-0.024^{*}	-0.063^{***}
	(0.013)	(0.012)	(0.012)
Constant	0.213^{***}	0.131^{***}	0.273^{***}
	(0.030)	(0.027)	(0.030)
R^2	0.098	0.071	0.089
Observations	4001	4001	4001
Respondents	2003	2003	2003

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

Table C6: Akaike Information Criterion (AIC) by City and District Cutpoints, Experiment R2

	\$5	\$10	\$15	\$25	\$50
−\$55	17413.72	17413.26	17411.36	17410.77	17410.99
−\$50	17413.28	17412.82	17410.90	17410.30	17410.52
−\$45	17402.93	17402.51	17400.70	17399.96	17400.15
−\$30	17394.68	17394.15	17392.08	17391.34	17391.55
−\$25	17373.51	17372.89	17370.73	17369.96	17370.16
−\$20	17309.08	17308.35	17306.06	17305.19	17305.39
−\$15	17256.44	17255.63	17252.97	17251.91	17252.15
−\$10	17212.34	17211.30	17208.60	17207.59	17207.79
−\$5	17169.63	17168.53	17165.91	17165.03	17165.22
−\$2	17067.73	17066.69	17064.59	17063.78	17063.90
−\$0.5	17002.91	17002.17	17000.71	16999.90	16999.96
−\$0.1	16934.61	16934.29	16933.15	16932.43	16932.51
\$0	**16910.04**	**16909.87**	**16908.79**	**16908.54**	**16908.72**
\$0.1	17150.67	17150.51	17149.55	17149.55	17149.94
\$0.5	17280.37	17280.24	17279.24	17279.21	17279.53
\$2	17383.28	17382.89	17381.44	17381.03	17381.20
\$5	17388.59	17388.06	17386.25	17385.34	17385.49
\$10	17354.31	17353.64	17352.01	17351.05	17351.14
\$15	17329.64	17328.90	17326.95	17325.92	17326.03
\$20	17300.33	17299.55	17297.49	17296.52	17296.65
\$25	17282.13	17281.45	17279.36	17278.53	17278.71
\$30	17264.07	17263.53	17261.47	17260.85	17261.08
\$45	17276.23	17275.72	17273.65	17273.08	17273.34
\$50	17321.57	17321.01	17318.79	17318.15	17318.40
\$55	17366.34	17365.88	17363.57	17363.08	17363.43

Note: Cells represent the AIC for each model with the given aggregate and district per capita cutpoint dummy variables. Unlike previous models, the *columns* represent the aggregate cutpoint values and the *rows* represent the district cutpoint values. The model estimated was Incumbent Evaluation $= \beta_0 + \beta_1 \times$District Above Cutpoint$+\beta_2\times$District At or Above Cutpoint$+\beta_3\times$Aggregate Above Cutpoint$+\beta_4\times$Aggregate At or Above Cutpoint$+\beta_5\times$District Per Capita Less than City Per Capita$+\beta_6\times$City Returns Per Capita$+\beta_7\times$District Returns Per Capita$+\epsilon$. Bold values indicate lowest AIC (i.e. best fitting) model for each given set of city cutpoints.

Table C7: Likelihood Ratio Tests, Experiment R2

	χ^2	p-value
City Return Treatment	0.015	1
District Return Treatment	111.786	1

Note: We conduct a multinomial logistic regression of the treatment variable on covariates party identification, household income, race, education, and region of the survey taker to test if our treatments of city and district net return were associated with any key covariates. We then conducted a likelihood ratio test of this model with the null model for each treatment variable outcome. Each column reflects the likelihood ratio difference between a saturated and null model, as well as the p-value for rejecting the null hypothesis. Since we fail to reject the null for both variables, we are unable to say there is a significant association between our treatment variables and these covariates.

D Supplementary Tables for Experiment 2

Table D1: Summary Statistics for Experiment 2

Variable	Mean	SD	Min	Max
Incumbent Evaluation	61.452	23.975	0.00	100
Vote for Incumbent	3.388	1.023	1.00	5
Approval of Project	3.489	1.133	1.00	5
Project Evaluation	62.629	23.831	0.00	100
District At Least Breaks Even (District ≥ 0)	0.669	0.471	0.00	1
District Benefits (District > 0)	0.511	0.500	0.00	1
District Worse Off than City	0.662	0.473	0.00	1
City Returns Per Capita	1.721	1.698	0.04	4
District Returns Per Capita	0.684	1.621	-1.00	4
Generic	0.282	0.450	0.00	1
Bad for District, Not Germane	0.187	0.390	0.00	1
Bad for District, Germane	0.091	0.288	0.00	1
Fair Share, Not Germane	0.094	0.291	0.00	1
Fair Share, Germane	0.185	0.388	0.00	1

Table D2: Effect of Challenger Criticisms on Evaluations when District At Least Breaks Even, Experiment 2

	Project Evaluation (0 to 100)	Approval of Project (1 to 5)	Incumbent Evaluation (0 to 100)	Vote for Incumbent vs. Challenger (1 to 5)
District Benefits (District > 0)	−0.491	−0.015	−0.026	−0.017
	(1.367)	(0.065)	(1.381)	(0.057)
District Returns Per Capita	0.634	0.027	0.506	0.030
	(0.389)	(0.019)	(0.385)	(0.017)
District Worse Off than City	-3.988^{*}	−0.114	-3.628^{*}	−0.129
	(1.702)	(0.081)	(1.698)	(0.072)
City Returns Per Capita	0.449	0.008	−0.046	0.006
	(0.324)	(0.016)	(0.331)	(0.014)
Second Sample	−0.543	0.023	−0.280	0.023
	(0.916)	(0.044)	(0.925)	(0.040)
Generic Critique	−0.472	0.033	0.399	0.019
	(1.389)	(0.066)	(1.386)	(0.059)
Bad Deal Critique (Not Germane)	−2.724	−0.067	−0.752	0.039
	(1.440)	(0.068)	(1.439)	(0.059)
Fair Share Critique (Not Germane)	−2.558	−0.079	−1.438	−0.105
	(1.721)	(0.081)	(1.756)	(0.076)
Fair Share Critique (Germane)	-4.356^{*}	−0.133	-4.032^{*}	−0.124
	(1.749)	(0.084)	(1.770)	(0.076)
Constant	68.149^{***}	3.621^{***}	66.244^{***}	3.514^{***}
	(2.622)	(0.123)	(2.621)	(0.110)
R^2	0.019	0.010	0.018	0.014
Observations	2684	2684	2684	2684

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$.

Note: Dependent variables are listed in each column. Models estimated using ordinary least squares regression, with standard errors clustered by respondent.

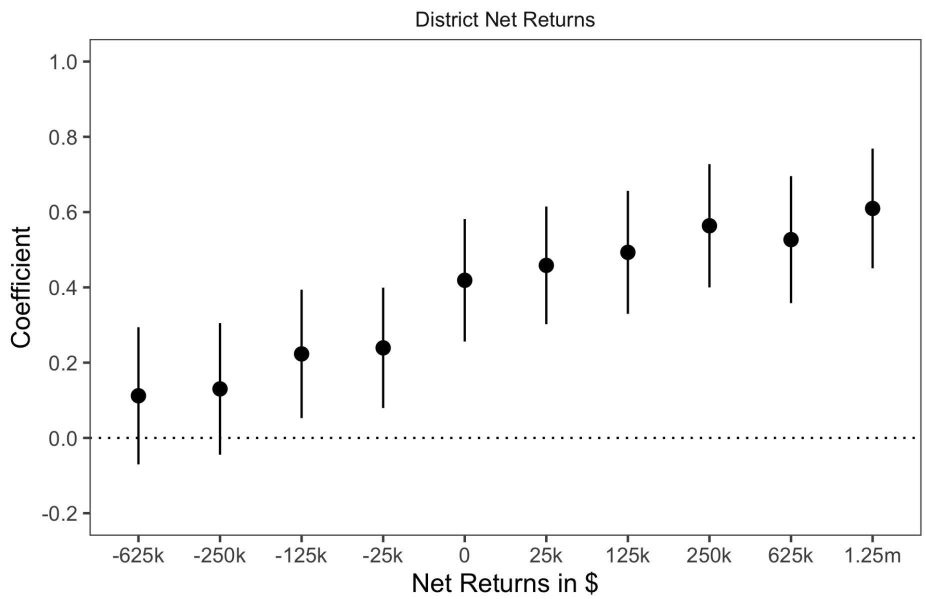
Table D3: Likelihood Ratio Tests, Experiment 2

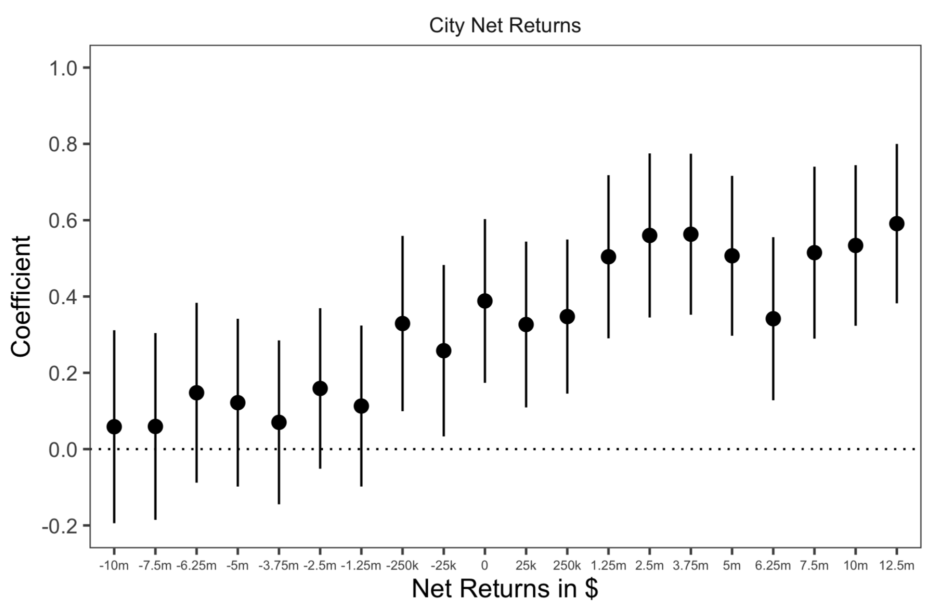
	χ^2	p-value
City Return Treatment	16.184	0.094
District Return Treatment	27.251	0.343

Note: We conduct a multinomial logistic regression of the treatment variable on covariates party identification, household income, race, education, and region of the survey taker to test if our treatments of city and district net return were associated with any key covariates. We then conducted a likelihood ratio test of this model with the null model for each treatment variable outcome. Each column reflects the likelihood ratio difference between a saturated and null model, as well as the p-value for rejecting the null hypothesis. Since we fail to reject the null for both variables, we are unable to say there is a significant association between our treatment variables and these covariates.

E Supplementary Figures

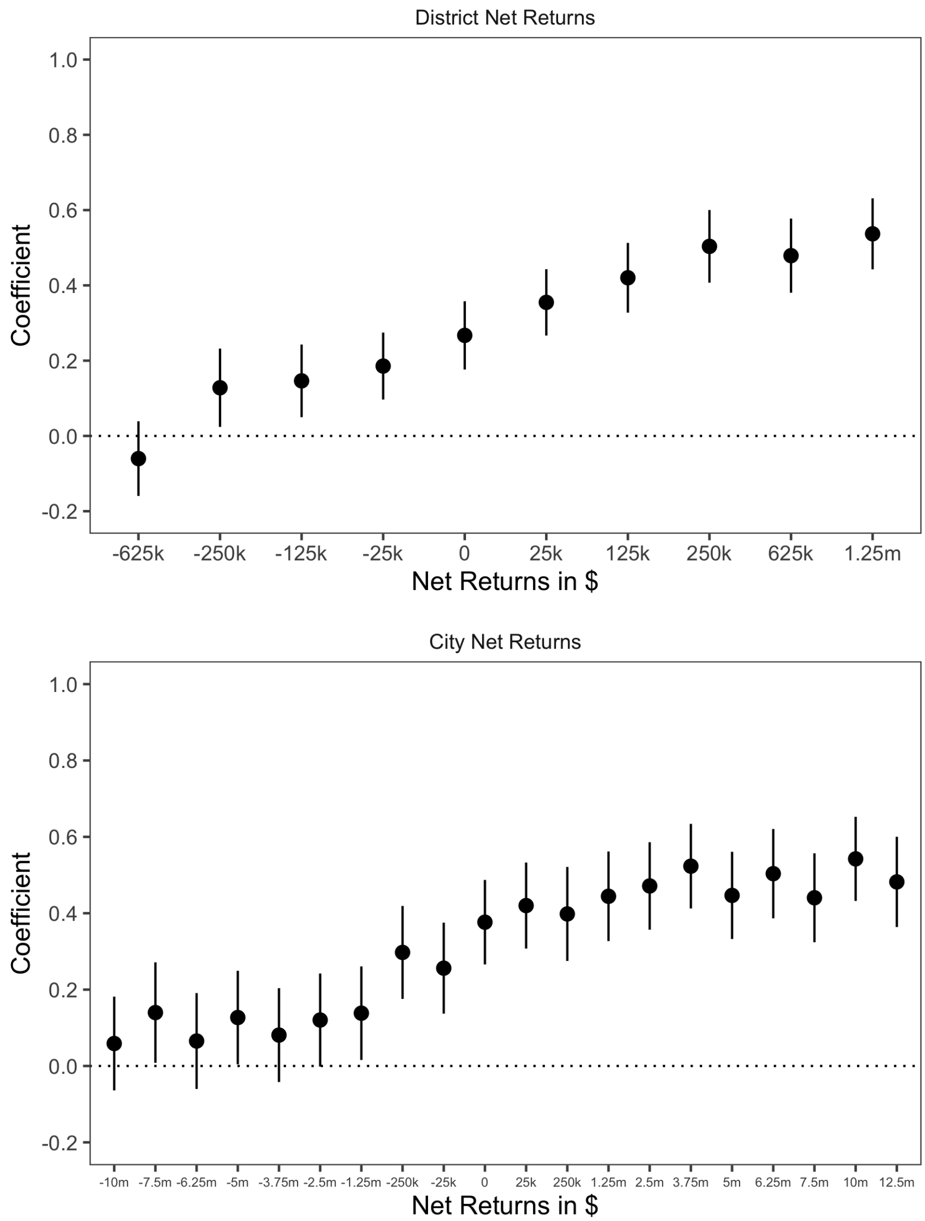
Figure E1: Effect of District and City Returns on Incumbent Evaluations, Experiment 1





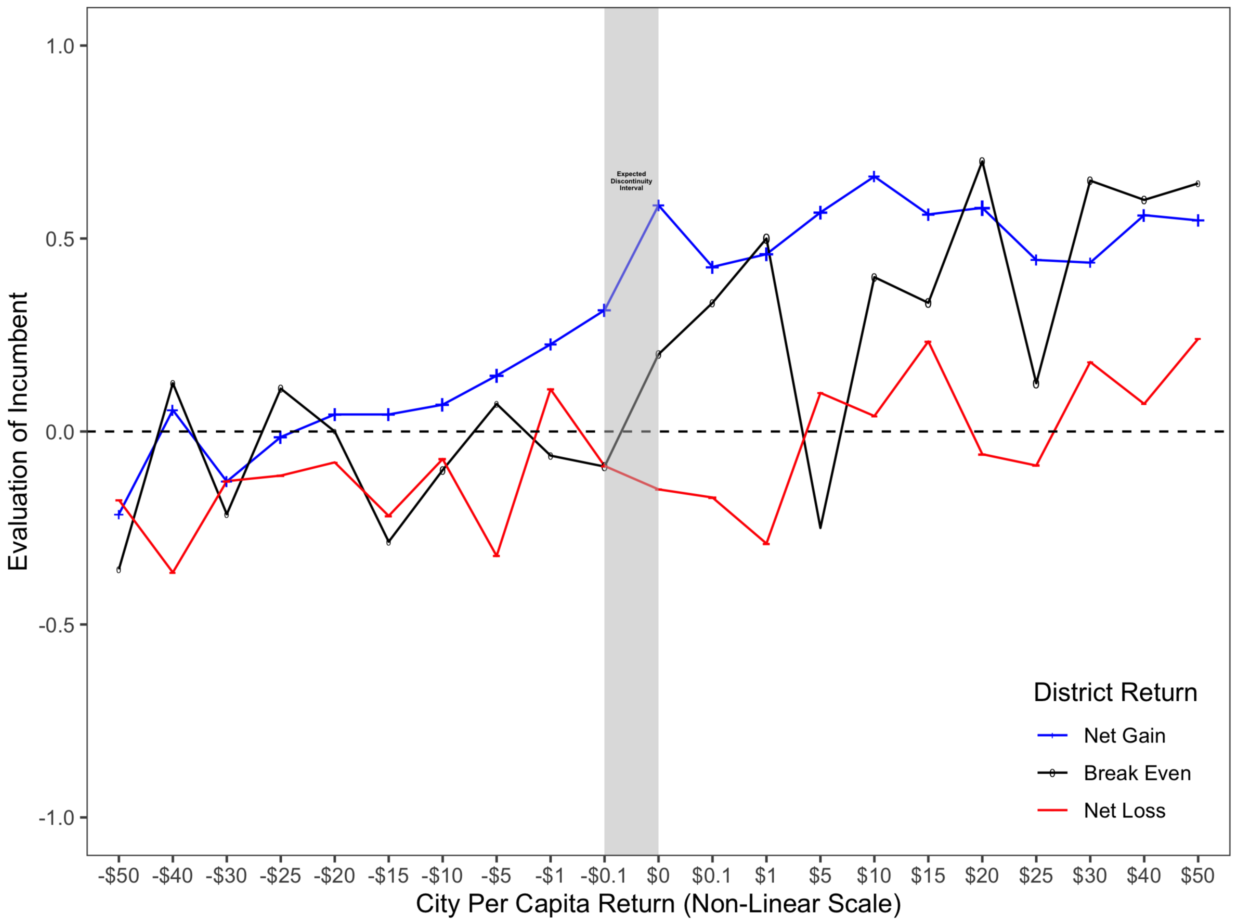
Note: Coefficients and confidence intervals are from regression model in Table A1 in the Appendix.

Figure E2: Effect of District and City Returns on Incumbent Evaluations, Experiment R1



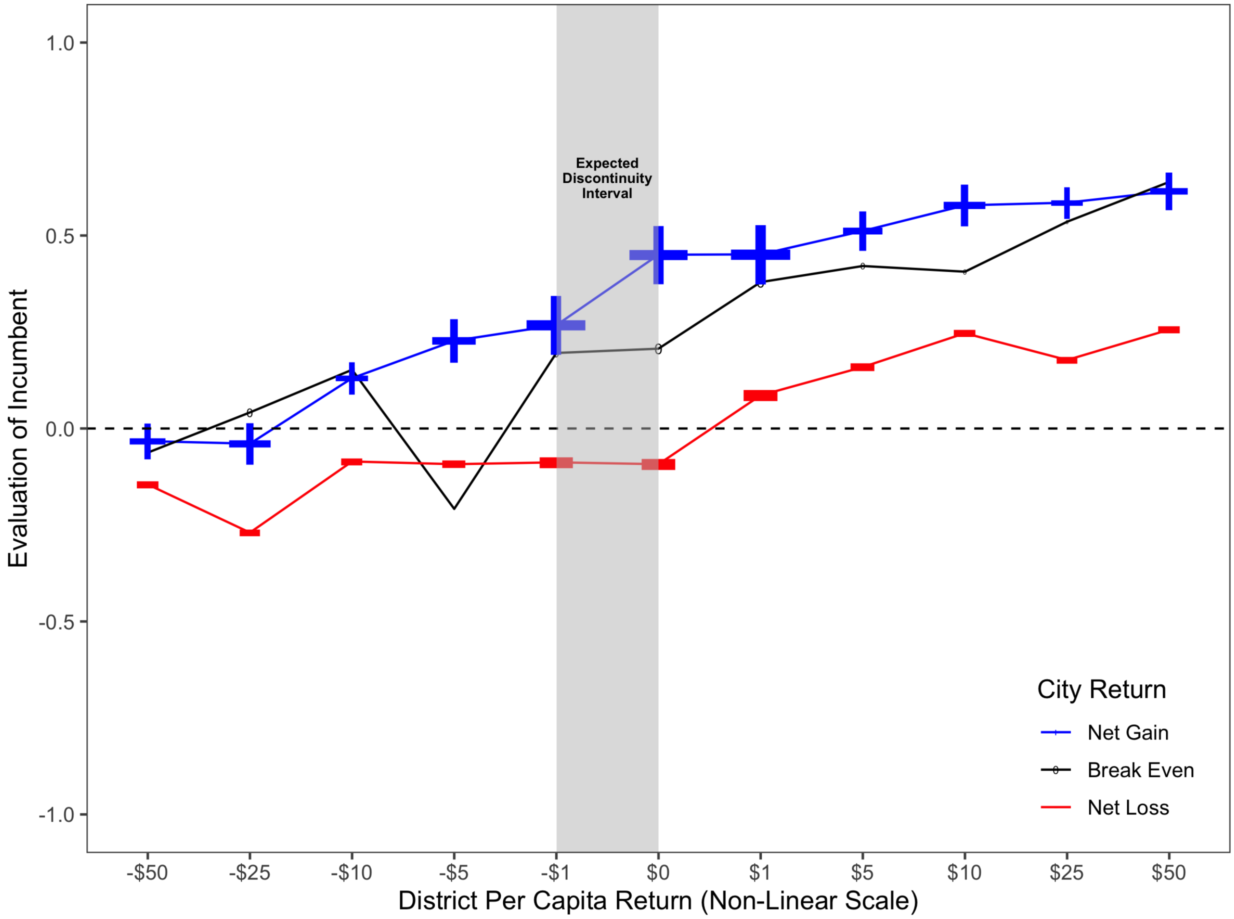
Note: Coefficients and confidence intervals are from the same regression model as seen in Table A1 in the Appendix, except with data from Experiment R1.

Figure E3: Mean Incumbent Evaluations by City Per Capita Returns, Binned by Net District Returns, Experiment 1



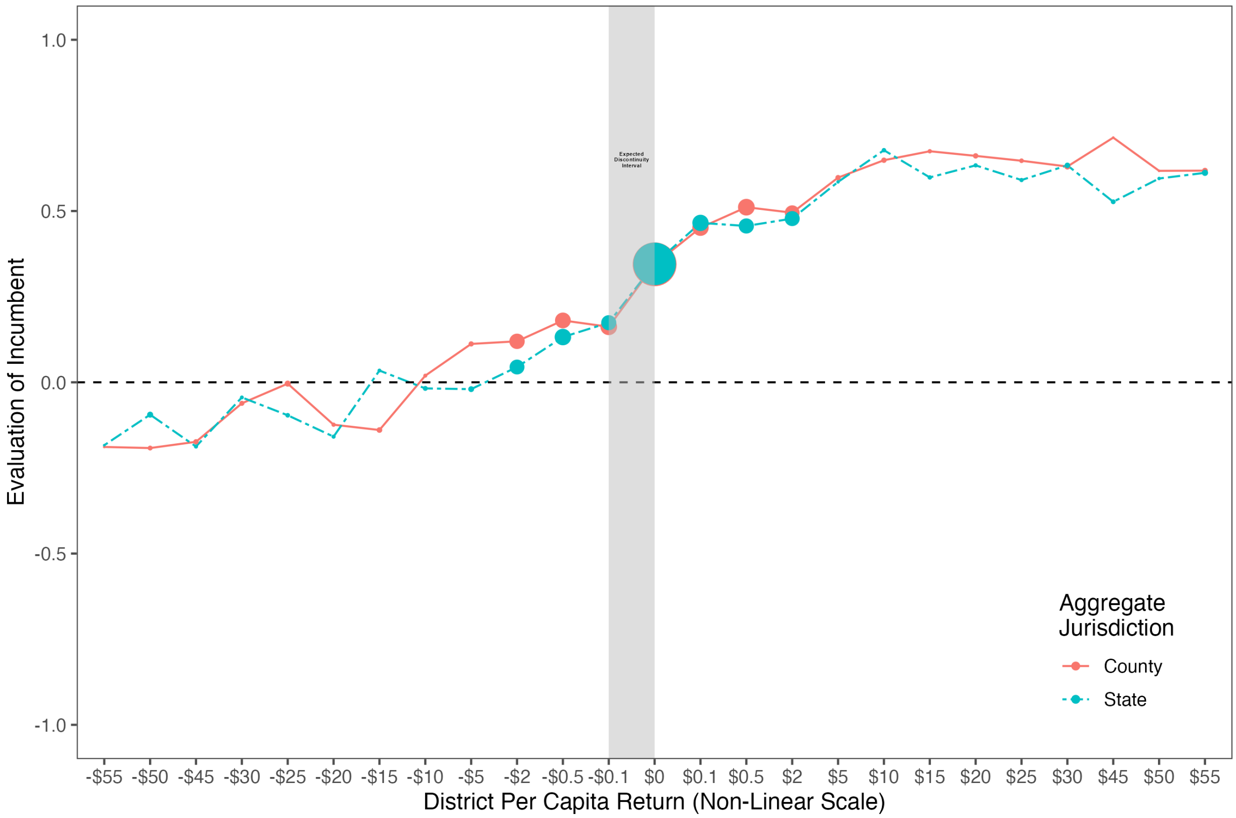
Note: The gray shaded area is the expected discontinuity interval, which ranges from $-\$1$ to \$0 for the district per capita return. The size of the points at each coordinate reflects the sample size for the given city-district treatment pairing. City per capita returns of $-\$1$, \$0, and \$1 were oversampled.

Figure E4: Mean Incumbent Evaluations by District Per Capita Returns, Binned by Net City Returns, Experiment R1



Note: The gray shaded area is the expected discontinuity interval, which ranges from $-\$1$ to \$0 for the district per capita return. The size of the points at each coordinate reflects the sample size for the given city-district treatment pairing. District per capita returns of $-\$1$, \$0, and \$1 were oversampled.

Figure E5: Mean Incumbent Evaluations by District Per Capita Returns, Binned by Aggregate Jurisdiction, Experiment R2



Note: The gray shaded area is the expected discontinuity interval, which ranges from −$0.1 to $0 for the district per capita return. The size of the points at each coordinate reflects the sample size for the given city-district treatment pairing. District per capita returns of −$2 to $2 were oversampled.

F Survey Vignettes

F1 Experiment 1 Vignette

Suppose that the members of your city's local government were considering a major road renovation project and your representative voted **"yes"** in support of the project. The project will cost \$100,000 in taxes from each district. The city has 10 districts. Each district has roughly 25,000 people and the city's total population is around 250,000. Below is a description of the project's net return for the city as a whole and your district.

Row A of the table reports the **net return** to all districts (the whole city), including your own district.

Row B of the table reports the **net return** to your district.

The **net return** is the economic value produced by the project, minus the program's cost in tax dollars. Negative numbers indicate that the city or your district come out behind on the project, while positive numbers indicate that the city or your district come out ahead on the project.

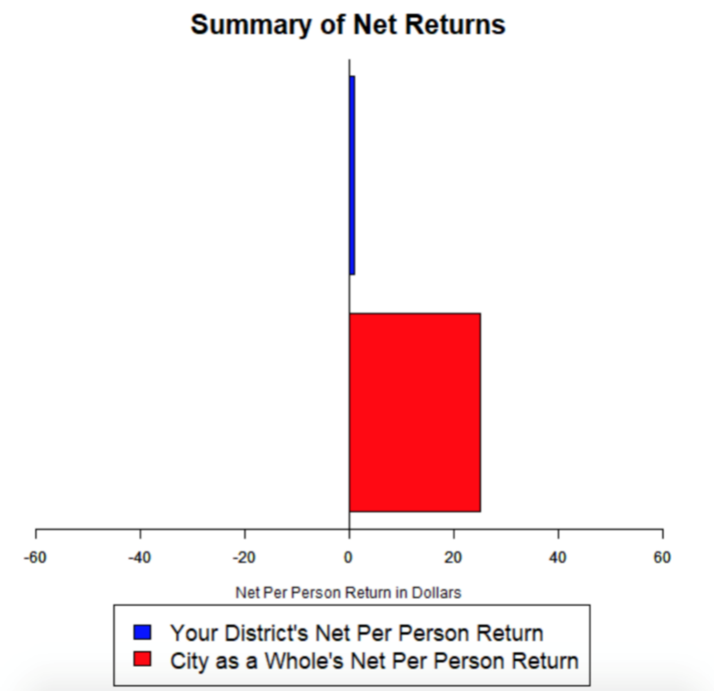
	Net Return
Row A: Net Return to the Whole City (Including Your District)	\$6,250,000
Row B: Net Return to Your District	\$25,000

Adding the gains and losses of all the districts, including your district, the city comes out \$6,250,000 ahead.

Your district comes out \$25,000 ahead.

This means that the typical person in your city is \$25.00 better off and the typical person in your district is \$1.00 better off.

This outcome can be summarized in the following figure:



F2 Experiment 2 Vignette

To ensure you have enough time to read the following, you will be able to proceed once 20 seconds have elapsed.

Suppose that the members of your city's local government were considering a major road renovation project and your representative voted **"yes"** in support of the project. The project will cost $100,000 in taxes from each district. The city has 10 districts. Each district has roughly 25,000 people and the city's total population is around 250,000. Below is a description of the project's net return for the city as a whole and your district.

Column A of the table reports the **net return** to all districts (the whole city), including your own district.

Column B of the table reports the **net return** to your district.

The **net return** is the economic value produced by the project, minus the program's cost in tax dollars. Negative numbers indicate that the city or your district come out behind on the project, while positive numbers indicate that the city or your district come out ahead on the project.

	Column A: Net Return to the Whole City (Including Your District)	**Column B: Net Return to Your District**
Net Return	$250,000	-$25,000

Adding the gains and losses of all the districts, the city comes out $250,000 ahead.

Your district comes out $25,000 behind.

This means that the typical person in your city is $1.00 better off and the typical person in your district is $1.00 worse off.

{Control Treatment}
Suppose that in the upcoming election for the non-partisan city council, your councilor is being challenged by someone who says the incumbent is doing a bad job.

{Control + *Generic criticism*}
In a debate held before the election, the challenger for your district's seat made the following statement:

"Our councilor isn't doing a good job. We're not on the right track and it's time for a change."

{Control + *district performance criticism*}
In a debate held before the election, the challenger for your district's seat made the following statement:

"Our city is in trouble. Our councilor isn't doing a good job. We're not on the right track and it's time for a change. Just look at this road project. This project is a bad deal for the district. You don't want to reelect someone who can't look out for our district's voters."

{Control + *fairness performance criticism*}
In a debate held before the election, the challenger for your district's seat made the following statement:

"Our councilor isn't doing a good job. We're not on the right track and it's time for a change. Just look at this road project. This project doesn't give our district its fair share. Our district puts in the same amount of money as other districts, but some other district is getting a lot more. You don't want to reelect someone who can't look out for our district's voters."

G Survey Question Wordings

G1 Experiments 1, R1, and R2

Do you approve of the road project adopted by the city council?

1. Strongly approve
2. Somewhat approve
3. Neither approve nor disapprove
4. Somewhat disapprove
5. Strongly disapprove

Do you approve of your incumbent councilor who voted "yes" on the road project?

1. Strongly approve
2. Somewhat approve
3. Neither approve nor disapprove
4. Somewhat disapprove
5. Strongly disapprove

Suppose you were voting in the upcoming election for city councilor in your district. Who would you vote for?

1. I would certainly vote for the incumbent
2. I would probably vote for the incumbent
3. I'd be equally likely to vote for either candidate
4. I would probably vote for the challenger
5. I would certainly vote for the challenger

G2 Experiment 2

Do you approve of the road project adopted by the city council?

1. Strongly approve
2. Somewhat approve
3. Neither approve nor disapprove
4. Somewhat disapprove
5. Strongly disapprove

Suppose you were voting in the upcoming election for city councilor in your district. Who would you vote for?

1. I would certainly vote for the incumbent
2. I would probably vote for the incumbent
3. I'd be equally likely to vote for either candidate
4. I would probably vote for the challenger
5. I would certainly vote for the challenger

On a scale of 0 to 100, with 0 being extremely unfavorable and 100 being extremely favorable, what is your rating of your councilor (who voted for the project)?

On a scale of 0 to 100, with 0 being extremely unfavorable and 100 being extremely favorable, what is your rating of this road project?