

# Appendix

to accompany

## *Bypassing Bureaucrats*

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## A Data Description

Table A-1: List of Executive & Independent Agencies

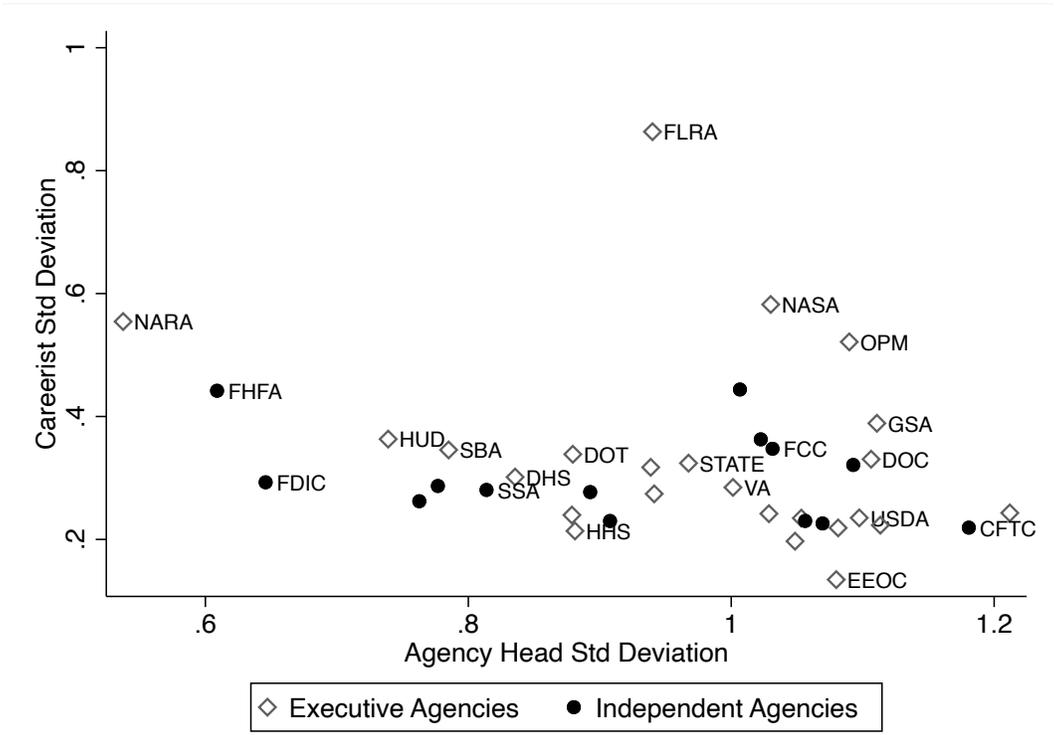
Executive Agencies	Independent Agencies
Agency for International Development Department of Agriculture Department of Commerce Department of Education Department of Energy Department of Health and Human Services Department of Homeland Security Department of Housing and Urban Development Department of Justice Department of Labor Department of State Department of the Treasury Department of Transportation Department of Veterans Affairs Department of the Interior Environmental Protection Agency Equal Employment Opportunity Commission Federal Labor Relations Authority General Services Administration National Aeronautics and Space Administration National Archives and Records Administration Office of Personnel Management Pension Benefit Guaranty Corporation Small Business Administration	Commodity Futures Trading Commission Consumer Product Safety Commission Farm Credit Administration Federal Communications Commission Federal Deposit Insurance Corporation Federal Reserve Board Federal Housing Finance Agency Federal Maritime Commission Federal Trade Commission National Credit Union Administration National Transportation Safety Board Nuclear Regulatory Commission Securities and Exchange Commission Social Security Administration

Table A-2: Descriptive Statistics for Model Variables

Variable Name	Mean	Std Dev	Min	Max
Policy Support Services (GAO)	1068.887	1212.815	0.172	5297.73
Policy Support Services (OMB)	623.266	885.998	0	4462.462
Careerists-Agency Head Distance	0.831	0.624	0	2.135
Employees (ln)	2.882	1.432	0.108	5.776
# Contracting Officers (ln)	5.189	1.710	0	7.924
Any SES Contracting Officer	0.669	0.471	0	1
Product Spending (ln)	19.406	2.627	0	23.051
Election Year	0.229	0.421	0	1
All Other White Collar Svcs*	1300.019	1482.6	0	9360.543
Blue Collar Svcs*	2434.647	5676.712	0	38136.49
Product Spending*	1411.695	2119.8	0	10249.61
Noncompetitive Award (GAO)	0.242	0.428	0	1
Noncompetitive Award (OMB)	0.203	0.402	0	1
Favorable Terms (GAO)	0.434	0.496	0	1
Favorable Terms (OMB)	0.546	0.498	0	1

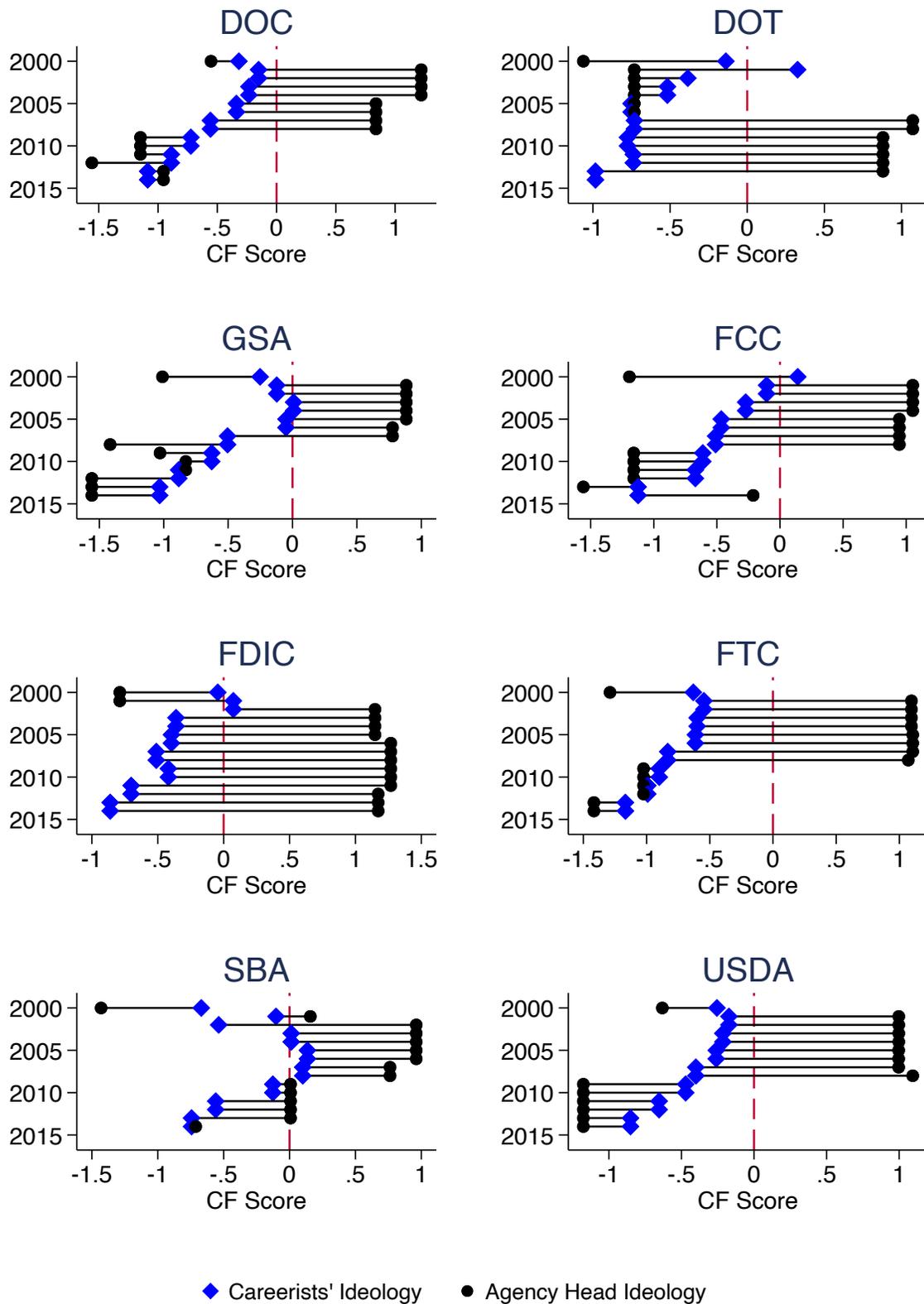
\* Indicates variables that are standardized in the regression analyses. Unstandardized values presented here for descriptive purposes.

Figure A-1: Within-Agency Standard Deviation in Feinstein-Wood Scores for Careerists and Agency Heads



Note: Points show within-agency standard deviation of Feinstein-Wood scores for careerists and agency heads; each point represents an agency in the dataset. Diamonds represent executive agencies and circles represent independent agencies. The figure shows that, within agencies, variation is much larger for agency head ideology than career bureaucrat ideology. Additionally, there does not appear to be a meaningful distinction between independent and executive agencies on these dimensions.

Figure A-2: Agency Head and Civil Servant CF Scores Over Time, Select Agencies



Note: Ideological distance between agency heads (circles) and the median civil servant (diamonds) in select agencies, as measured by Feinstein and Wood's (2021) CF scores. Years are measured on the vertical axis.

## **B Approach to Data Collection and Cleaning**

### **B.1 Coding Procurement Spending Data**

The data on procurement spending were obtained from the Federal Procurement Data System–Next Generation (FPDS, available online at [www.usaspending.gov](http://www.usaspending.gov)). The FPDS is the front end of the federal government’s procurement database; contracting officers input data into the back end of this system each time a new contract is initiated or an existing contract is amended. This means that a new entry is created in the FPDS every time a contracting action occurs—from a vendor’s change of address to the initiation of a multi-million dollar contract. The FPDS data begin in 2001; although there was an antecedent version of the FPDS that existed dating back to 1979, that version was less detailed and prone to errors.

To distinguish different types of products and services I rely on the “Product and Service” Code (PSC) for each entry; this variable is inputted for each contract award and denotes whether the contract was for a product, research and development, or a service. There are hundreds of codes for each type of action; for example, code “R422” indicates “Professional Support: Market Research/Public Opinion (includes: Telephone and Field Interviews, Focus Testing, and Surveys)” (service), whereas code “8340” indicates the purchase of “tents and tarpaulins” (product). After disaggregating spending by the PSC, I then sum service spending entries for every agency in every year. I focus on prime contracts only (i.e., not subcontracts) and exclude deobligated funds from the totals, since the intent of the measure is to capture positive decisions about where to allocate monies.

### **B.2 Coding Chief Acquisition Officer Data**

I identified the highest ranking procurement official in each agency according to membership listings in the Chief Acquisition Officers Council (CAOC) website. I obtained annual historical membership listings from the archived versions of the CAOC website, available at <https://web.archive.org/>. For Cabinet level department and larger agencies, I iden-

tified the person who was listed as the "principal" contact. Often this person was the Chief Acquisition Officer. In a few instances two people were listed as the principal, in which case I selected the first person listed. For smaller agencies that are not statutorily required to have a Chief Acquisition Officer, I selected the most senior contact person listed on the CAOC site. These individuals often held the title of Senior Procurement Executive. When positions were listed as "vacant," I moved down to the next seniormost person (often listed as the "alternate" to the CAO). The list of CAOs members was not updated for the years 2007 and 2014; for both years I use the following year's data. The list of SPEs for small agencies was not available prior to 2008, so the list of procurement officers for smaller agencies is missing for 2003-2007.

Once all individuals were identified, I matched procurement officials' names with personnel data from the Office of Personnel Management that included information about each person's appointment type. I coded individuals as appointees if they had any of the following appointment types: "44" (Schedule C, Excepted Service), "46" (Executive, Excepted Service), or "55" (NonCareer Senior Executive Service). All others were coded as careerists.

One limitation to this approach to coding CAO data is that the CAOC website may not be updated in real-time. For example, a CAO position may be listed on the CAOC site as "vacant," but someone—either an appointee or a careerist could nevertheless be serving in that position. Nonetheless, this approach gives some sense of the status of CAOs in agencies across time.

## C Robustness Checks

Table C-1: Effect of Ideological Distance on Policy Outsourcing, Excluding the General Services Administration

	(1) Policy Support Svcs (GAO)	(2) Policy Support Svcs (GAO)	(3) Policy Support Svcs (OMB)	(4) Policy Support Svcs (OMB)
Careerists-Agency Head Dist	327.062* (118.719)	93.962* (42.982)	262.918** (92.048)	75.196* (35.938)
Employees (ln)	1,353.298 (680.603)	61.799 (149.068)	785.268 (522.399)	41.390 (177.437)
# Contracting Officers (ln)	369.388 (280.085)	153.693 (150.377)	2.774 (199.394)	0.135 (108.018)
Any SES Contracting Officers	142.837 (182.352)	20.400 (53.531)	21.177 (114.319)	-35.039 (50.445)
Product Spending (ln)	25.192 (47.478)	19.113 (29.403)	20.041 (36.298)	17.190 (23.260)
Election Year	50.250 (34.960)	-46.024 (23.148)	34.061 (22.973)	-21.677 (22.119)
Observations	302	280	302	280
R-squared	0.309	0.739	0.166	0.630
Number of Agencies	23	23	23	23
Administration FE	YES	YES	YES	YES
Agency FE	YES	YES	YES	YES
Lagged DV	NO	YES	NO	YES

*Note:* Table entries are OLS coefficients. Models include executive branch agencies only.

Robust standard errors clustered on the agency level are in parentheses.

Two-tailed tests: \*\*\* $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ . FE = fixed effect.

\* These models exclude the General Services Administration (GSA), which by virtue of its mission, has a special procurement role. It is responsible for a high volume of procurement transactions and sometimes is used as a pass-through for procurement transactions for other agencies.

Table C-2: Effect of Ideological Distance on Policy Outsourcing, Including the Department of Defense

	(1) Policy Support Svcs (GAO)	(2) Policy Support Svcs (GAO)	(3) Policy Support Svcs (OMB)	(4) Policy Support Svcs (OMB)
Careerists-Agency Head Dist	973.656 (751.220)	215.694 (148.780)	622.342 (399.819)	117.939 (60.020)
Product Spending (ln)	41.267 (95.384)	38.211 (44.083)	28.147 (61.297)	26.727 (29.654)
Election Year	392.901 (348.207)	88.112 (139.223)	141.401 (119.364)	-33.982 (22.055)
Observations	330	306	330	306
R-squared	0.076	0.868	0.079	0.827
Number of Agencies	25	25	25	25
Administration FE	YES	YES	YES	YES
Agency FE	YES	YES	YES	YES
Lagged DV	NO	YES	NO	YES

*Note:* Table entries are OLS coefficients. Models include executive branch agencies only. Robust standard errors clustered on the agency level are in parentheses. Two-tailed tests: \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ . FE = fixed effect.  
 \* These models include the Department of Defense. Because that agency accounts for the lion's share of service spending (47%) and does not disclose comparable data on personnel levels, it is excluded from the analyses in the main body of the paper.

Table C-3: Effect of Ideological Distance on Policy Outsourcing, by Presidential Administration

	GW Bush Administration		Obama Administration	
	Policy Support Svc (GAO)	Policy Support Svc (GAO)	Policy Support Svc (OMB)	Policy Support Svc (OMB)
Careerists-Agency Head Dist	544.123 (283.314)	472.410 (273.793)	-38.248 (116.382)	-30.493 (117.619)
Employees (ln)	1,115.327 (897.360)	651.892 (618.226)	-246.394 (1,138.285)	-50.052 (1,013.294)
# Contracting Officers (ln)	584.343 (838.922)	343.523 (640.716)	609.759 (353.869)	-56.587 (283.484)
Any SES Contracting Officers	-10.997 (117.622)	10.287 (112.405)	-120.684 (93.147)	-166.238 (152.528)
Product Spending (ln)	4.307 (37.124)	5.083 (32.709)	140.905 (114.504)	128.273 (109.161)
Election Year	74.850 (46.728)	51.521 (34.836)	-71.093 (39.158)	-69.978* (31.814)
R-squared	0.217	0.205	0.058	0.045
Number of OPM2	24	24	24	24
Number of Agencies	24	24	24	24
Administration FE	YES	YES	YES	YES
Agency FE	NO	NO	NO	NO
Lagged DV	NO	NO	YES	YES

Note: Table entries are OLS coefficients. Models include executive branch agencies only. Robust standard errors clustered on the agency level are in parentheses. Two-tailed tests: \*\*\*p<0.001, \*\* p<0.01, \* p<0.05. FE = fixed effect.  
 \* Results for the Obama administration necessarily exclude 2015–2016, thereby truncating the data.

Table C-4: Effect of Ideological Distance on Policy Outsourcing, with Chen-Johnson Estimates

	(1) Policy Support Svcs (GAO) \$	(2) Policy Support Svcs (GAO) \$	(3) Policy Support Svcs (OMB) \$	(4) Policy Support Svcs (OMB) \$
Careerists-Agency Head Dist (CJ)	830.948 (445.392)	73.803 (126.022)	671.653 (356.245)	113.883 (127.941)
Employees (ln)	1,076.620 (717.693)	192.442 (218.024)	581.620 (590.724)	156.031 (223.614)
# Contracting Officers (ln)	362.544 (359.517)	89.129 (116.017)	-16.547 (293.213)	-114.013 (90.853)
Any SES Contracting Officers	10.283 (190.186)	87.266 (78.405)	-52.226 (148.844)	27.471 (72.735)
Product Spending (ln)	38.340 (40.924)	25.834 (30.458)	31.356 (32.302)	20.695 (22.074)
Election Year	37.618 (43.573)	-43.946 (27.645)	5.846 (32.568)	-22.386 (27.258)
Observations	274	252	274	252
R-squared	0.260	0.698	0.128	0.597
Number of Agencies	23	23	23	23
Administration FE	YES	YES	YES	YES
Agency FE	YES	YES	YES	YES
Lagged DV	NO	YES	NO	YES

Note: Table entries are OLS coefficients. Models include executive branch agencies only. Robust standard errors clustered on the agency level are in parentheses. Two-tailed tests: \*\*\*p<0.001, \*\* p<0.01, \* p<0.05. FE = fixed effect.

\* Ideology estimates from Chen and Johnson (2015).

Table C-5: Policy Outsourcing Spending and Agency Rule Production

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	# Final Rules							
Policy Support Svcs (GAO)	-0.012*			-0.011*				
	(0.006)			(0.004)				
Policy Support Svcs (GAO) (t-1)		-0.006						
		(0.003)						
Policy Support Svcs (GAO) (t-2)			0.001					
			(0.003)					
Policy Support Svcs (GAO) × Agency-Appointee Dist				-0.002				
				(0.003)				
Policy Support Svcs (OMB)					-0.013			-0.013
					(0.009)			(0.008)
Policy Support Svcs (OMB) (t-1)						-0.006		
						(0.005)		
Policy Support Svcs (OMB) (t-2)							-0.000	
							(0.002)	
Policy Support Svcs (OMB) × Agency-Appointee Dist								-0.000
								(0.002)
Agency-Appointee Dist	-5.028	-8.769	-9.053	-3.639	-5.783	-9.054	-8.764	-5.713
	(5.101)	(6.022)	(5.594)	(5.725)	(5.096)	(6.082)	(5.398)	(5.229)
Employees (ln)	17.846	13.683	-11.717	14.715	11.431	10.474	-8.765	11.207
	(24.982)	(26.705)	(20.385)	(24.566)	(24.498)	(27.755)	(23.125)	(24.479)
# Contracting Officers (ln)	40.848*	34.424	27.296	41.073*	35.755*	31.932	28.127	35.813*
	(17.288)	(17.049)	(13.236)	(17.179)	(15.677)	(16.413)	(13.999)	(15.954)
Any SES Contracting Officers	-4.180	-7.912	-6.508	-4.269	-5.276	-8.167	-6.553	-5.285
	(10.607)	(11.524)	(9.272)	(10.574)	(9.907)	(11.399)	(9.282)	(9.958)
Product Spending (ln)	-0.627	-0.915	-5.831	-0.618	-0.644	-0.940	-5.713	-0.644
	(0.675)	(1.132)	(3.693)	(0.661)	(0.742)	(1.165)	(3.614)	(0.743)
Election Year	-2.792	-1.666	-0.586	-2.941	-2.919	-1.945	-0.416	-2.933
	(2.560)	(2.788)	(3.030)	(2.612)	(2.584)	(2.793)	(2.923)	(2.634)
Observations	308	288	266	308	308	288	266	308
R-squared	0.198	0.149	0.113	0.200	0.181	0.143	0.112	0.181
Number of Agencies	24	24	24	24	24	24	24	24
Controls	YES							
Administration FE	YES							
Agency FE	YES							

Note: Table entries are OLS coefficients. Models include executive branch agencies only. Robust standard errors clustered on the agency level are in parentheses. Two-tailed tests: \*\*\*p<0.001, \*\* p<0.01, \* p<0.05. FE = fixed effect.

†Dependent variables are counts of final rules issued by agency  $i$  in year  $t$ . Rule data are from the *Federal Register*.

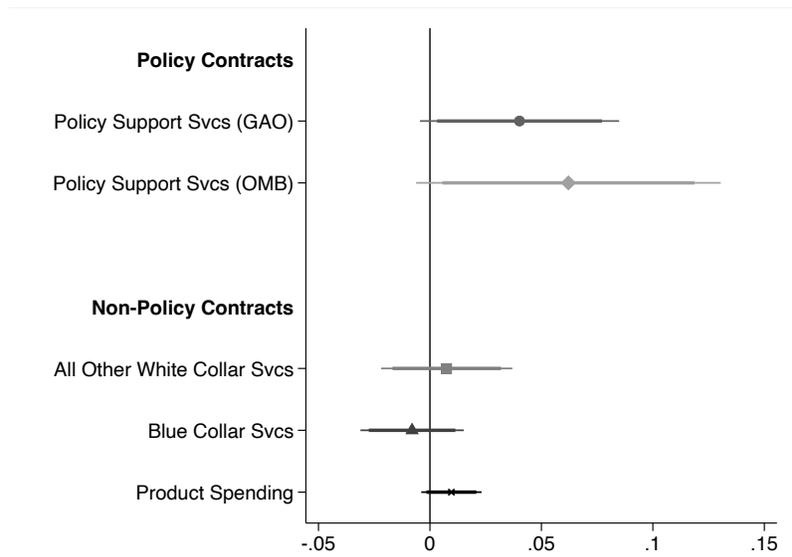
Table C-6: Placebo Population Tests of Bypasses in Alternate Procurement Spending Categories

	(1) Policy Support Svcs (GAO)	(2) Policy Support Svcs (OMB)	(3) Other White Collar Svcs	(4) Blue Collar Svcs	(5) Product Spending
Careerists-Agency Head Dist	0.037* (0.014)	0.057* (0.021)	0.019 (0.009)	0.001 (0.008)	0.009 (0.007)
Employees (ln)	0.406* (0.190)	0.471 (0.280)	0.325 (0.160)	0.229 (0.147)	0.096 (0.071)
Contracting Officers (ln)	0.141 (0.109)	-0.013 (0.148)	0.249 (0.162)	0.062 (0.101)	0.089 (0.069)
Any SES Contracting Officers	0.010 (0.014)	0.002 (0.017)	-0.008 (0.009)	-0.000 (0.009)	-0.005 (0.004)
Product Spending (ln)	0.043 (0.076)	0.066 (0.111)	-0.007 (0.036)	0.010 (0.022)	
Election Year	0.003 (0.003)	0.004 (0.004)	0.000 (0.002)	-0.009 (0.006)	0.000 (0.001)
Observations	316	316	316	316	316
R-squared	0.298	0.160	0.337	0.051	0.156
Number of Agencies	24	24	24	24	24
Administration FE	YES	YES	YES	YES	YES
Agency FE	YES	YES	YES	YES	YES

*Note:* Table entries are standardized OLS coefficients. Models include executive branch agencies only. Robust standard errors clustered on the agency level are in parentheses.

Two-tailed tests: \*\*\* $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ . FE = fixed effect.

Figure C-1: Contract Spending on Policy and Non-Policy Services with Chen-Johnson Estimates



Note: Figure shows standardized coefficients for *Careerists-Agency Head Distance* from models with the dependent variable listed on the left. Ideology estimates are drawn from Chen and Johnson (2015). Thick bars represent 95% confidence intervals; thinner bars represent 90% confidence intervals.

Table C-7: Models with Continuous Measures of Agency Independence

	(1) Policy Support Svcs (GAO) per capita	(2) Policy Support Svcs (OMB) per capita	(3) Policy Support Svcs (GAO)	(4) Policy Support Svcs (OMB)	(5) Policy Support Svcs (GAO)	(6) Policy Support Svcs (OMB)
Independent	-37.324* (15.669)	-13.444 (8.933)				
AAP Independence			-739.029 (388.809)	-205.850 (297.424)		
Decision Independence					-140.405 (88.236)	-24.896 (72.601)
Political Independence					-45.604 (42.308)	-50.321 (38.225)
Employees (ln)	-105.486* (49.393)	-58.718 (36.601)	-138.412 (195.338)	-95.524 (148.587)	-125.087 (197.392)	-86.623 (148.329)
# Contracting Officers (ln)	60.910 (32.539)	37.850 (25.074)	210.848 (128.542)	161.261 (99.665)	230.726 (122.673)	167.420 (94.368)
Any SES Contracting Officers	55.148 (33.284)	23.055 (18.082)	406.759 (250.634)	148.185 (217.935)	386.821 (235.776)	125.434 (200.273)
Product Spending (ln)	1.753 (0.927)	0.502 (0.437)	-0.315 (4.365)	0.511 (3.070)	-4.150 (5.063)	-1.634 (3.360)
Election Year	2.790 (1.821)	1.629 (1.441)	29.943* (13.326)	10.971 (8.913)	30.563* (13.250)	11.853 (8.721)
Observations	1,672	1,672	1,204	1,204	1,244	1,244
R-squared	0.236	0.183	0.414	0.328	0.416	0.338
Administration FE	YES	YES	YES	YES	YES	YES
Agency FE	YES	YES	YES	YES	YES	YES

Note: Table entries are OLS coefficients. Models include executive branch agencies only. Robust standard errors clustered on the agency level are in parentheses. Two-tailed tests: \*\*\*p<0.001, \*\* p<0.01, \* p<0.05. FE = fixed effect.

Table C-8: Favoritism in Awarding Policy Support Contracts, Full Models

	(1) Noncompetitive Award (GAO)	(2) Noncompetitive Award (OMB)	(3) Favorable Terms (GAO)	(4) Favorable Terms (OMB)
Careerists-Agency Head Dist	-0.012 (0.011)	-0.014 (0.011)	-0.018 (0.032)	-0.004 (0.035)
Employees (ln)	-0.041 (0.076)	-0.003 (0.121)	0.125 (0.194)	0.342 (0.230)
# Contracting Officers (ln)	-0.049 (0.045)	-0.064 (0.085)	-0.082 (0.098)	-0.134 (0.125)
Any SES	0.040* (0.017)	0.044** (0.015)	0.012 (0.044)	0.039 (0.041)
Election Year	-0.003 (0.008)	-0.014 (0.010)	0.004 (0.009)	0.006 (0.013)
Award \$ (ln)	-0.023*** (0.006)	-0.017** (0.005)	0.044*** (0.010)	0.049** (0.014)
Politicization	0.414 (0.235)	0.581 (0.295)	-0.280 (0.689)	-0.313 (0.554)
Observations	159,392	65,611	162,253	65,999
R-squared	0.017	0.017	0.032	0.023
Number of Agencies	22	21	22	21
Administration FE	YES	YES	YES	YES
Agency FE	YES	YES	YES	YES
Service Type FE	YES	YES	YES	YES

Note: Table entries are coefficients from linear probability models. Two-tailed tests: \*\*\*p<0.001, \*\* p<0.01, \* p<0.05. FE = fixed effect.

## D Who Makes Procurement Decisions?

The empirical tests in the manuscript focus on ideological divergence between appointed agency heads and career civil servants as an important driver of outsourcing for policy work. One potential issue with this logic is that agency heads rarely *directly* oversee procurement decisions. Even if a decision about labor allocation is made at the top, implementation of that procurement outcome is delegated to a lower level within the agency. Delegating that work introduces the possibility for further agency loss, as lower-level officials may choose to not faithfully implement management's decisions about outsourcing.

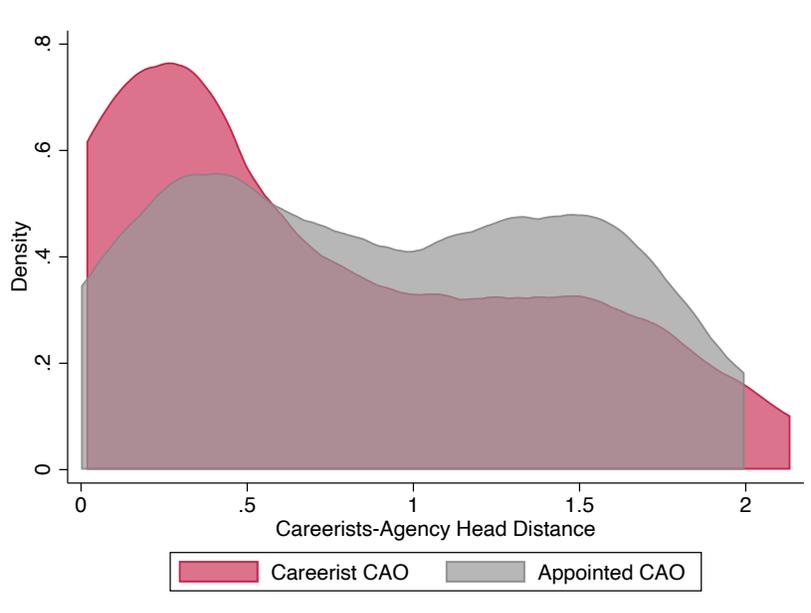
This logic suggests that *who* makes procurement decisions is important to confirming the top-down bureaucratic bypassing argument. If agency heads can rely on faithful agents who share their ideology—like other political appointees—to carry out procurement decisions, then agency loss can be minimized. However, if agents who do not share their ideology are in charge of procurement, then agency loss can be exacerbated. To evaluate this, I leverage the fact that procurement decisions are “overseen by a group of high-ranking officials comprising career bureaucrats and political appointees” (Lee, 2024, 8). Since 2003, many Cabinet and executive branch agencies have been required to have a Chief Acquisition Officer (CAO), the official who is responsible for overseeing acquisition management. By statute most executive branch agencies are required to have a politically appointed individual in the CAO role, but, in practice, the GAO has found that many agencies have career officials performing the CAO function (GAO, 2012). Agencies not required by law to have a politically appointed CAO can select whether to appoint a political appointee or a career civil servant to the role.

To evaluate the role of procurement officials in implementing decisions, I collect data on the top-ranking procurement official in each agency (i.e., the CAO) and then code for each year whether the person serving in that role is a political appointee or a career civil servant. Specifically, I use archival records that identify the principal procurement

official representing each agency on the Chief Acquisition Officers Council (an interagency group that comprises CAOs and senior procurement executives) and match those officials with personnel records from the Office of Personnel Management that indicate whether an individual is serving in a career or political capacity. See Appendix B3 for more information on the coding process.

For the years 2003–2014, 36% of top procurement officials were appointed; the remaining 64% were career civil servants. Figure D-1 presents kernel density plots of ideological distributions for both careerist and politically appointed CAOs, showing that appointees serve more often when ideological distance is highest. Different types of procurement officials seemingly serve under different conditions; for an appointed CAO, the mean value of *Careerists - Agency Head Distance* is 0.896, while the mean value for a career CAO is 0.719, a statistical meaningful difference ( $p < .05$ ).

Figure D-1: Ideological Conflict under Chief Acquisition Officers Types



Note: Figure shows kernel density plots for *Careerists - Agency Head Distance* for appointed CAOs (gray shading), and careerist CAO (pink shading).

These data suggest that, in the face of ideological conflict political leaders may

attempt to enhance control of the procurement function by putting an appointed leader into the CAO role.

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