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Measuring the Effects of Federal Budget Dysfunction: Impacts of Continuing Resolutions on Public Procurement

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Outline

1. **Research Outline**
2. Background on Federal Budgeting
3. Paper on Continuing Resolutions
4. Discussion

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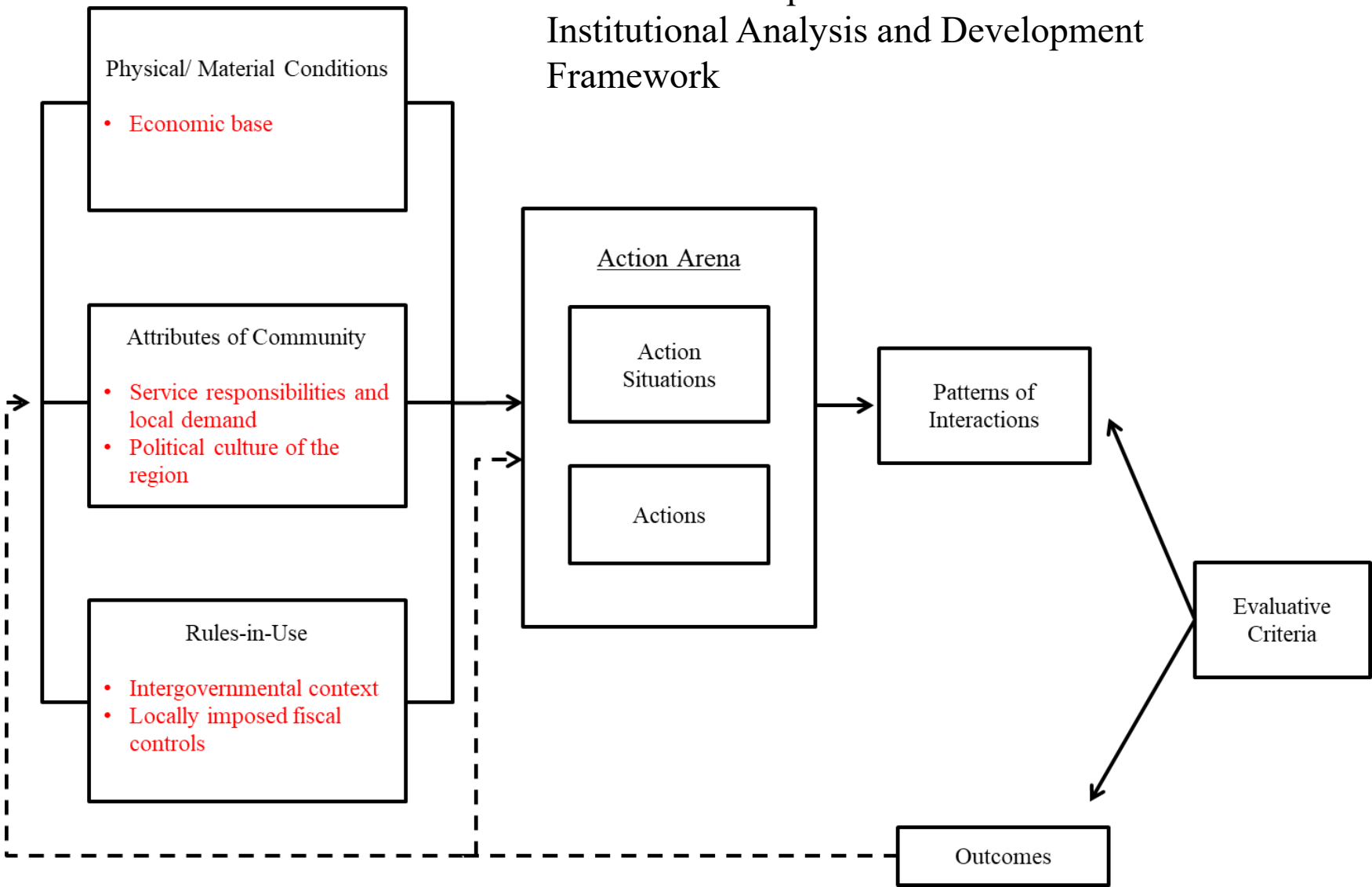
Institutional Analysis of Fiscal Behavior

I use Pagano and Hoene's Fiscal Policy Space Framework to operationalize Ostrom's Institutional Analysis and Development Framework



Recent Work

- Interactions Between Overlapping Governments
  - Brien, Spencer T. (with Robert J. Eger III). "Exploring the Sub-State Intergovernmental Game." *Perspectives on Public Management and Governance.* 2021, 4 (4), pp. 394-403
  - Brien, Spencer T. (with Wenli Yan) "Are Overlapping Local Governments Competing with Each Other When Issuing Debt?". *Public Budgeting & Finance.* 2020, 40 (2), pp. 75-92
  - Brien, Spencer T. "Strategic Interaction Among Overlapping Local Jurisdictions" *American Review of Public Administration.* 2018, 48 (6), pp. 584-595
- Fiscal Stress
  - Brien, Spencer T. (with Rober J. Eger III & David Matkin) "The Timing of Managerial Responses to Fiscal Stress". *Public Administration Review.* 2021, 81 (3), pp. 414-427
  - Brien, Spencer T. (with Stephen C. Hansen, Mina Pizzini, & Philip Candreva) "Looking Forward to Cuts: A Simulation Decision Tool for Cutback Management". *Public Budgeting & Finance.* 2020, 40 (1), pp. 3-21
- Continuing Resolutions
  - Brien, Spencer T. (With Korey Letterle & Paul Kantner). "Measuring the Effects of Federal Budget Dysfunction: Impacts of Continuing Resolutions on Public Procurement". *American Review of Public Administration* (2nd Round)

Applied Work

- 8 years modeling IRS workforce turnover in IRS Research & Statistics (2004-2012)
- Brien, Spencer T. “An Assessment of the Impact of Federal Continuing Resolutions on the Preapproval Stage of Defense Acquisition” Acquisition Research Program Sponsored Report Series. 2021
- Brien, Spencer T. “An Analysis of Turnover Among the Civil Service Components of the Department of Defense Acquisition and Medical Workforces” Acquisition Research Program Sponsored Report Series. 2020.
- Brien, Spencer T. “Attrition Among the DoD Civilian Workforce”. Acquisition Research Program Sponsored Report Series. 2019.
- Brien, Spencer T. (with H. Figueroa, C. Totura, W. Wolfersteig). “Evaluation of Arizona State University’s Tobacco-Free Campus Policy”. Maricopa County Department of Public Health. 2014.

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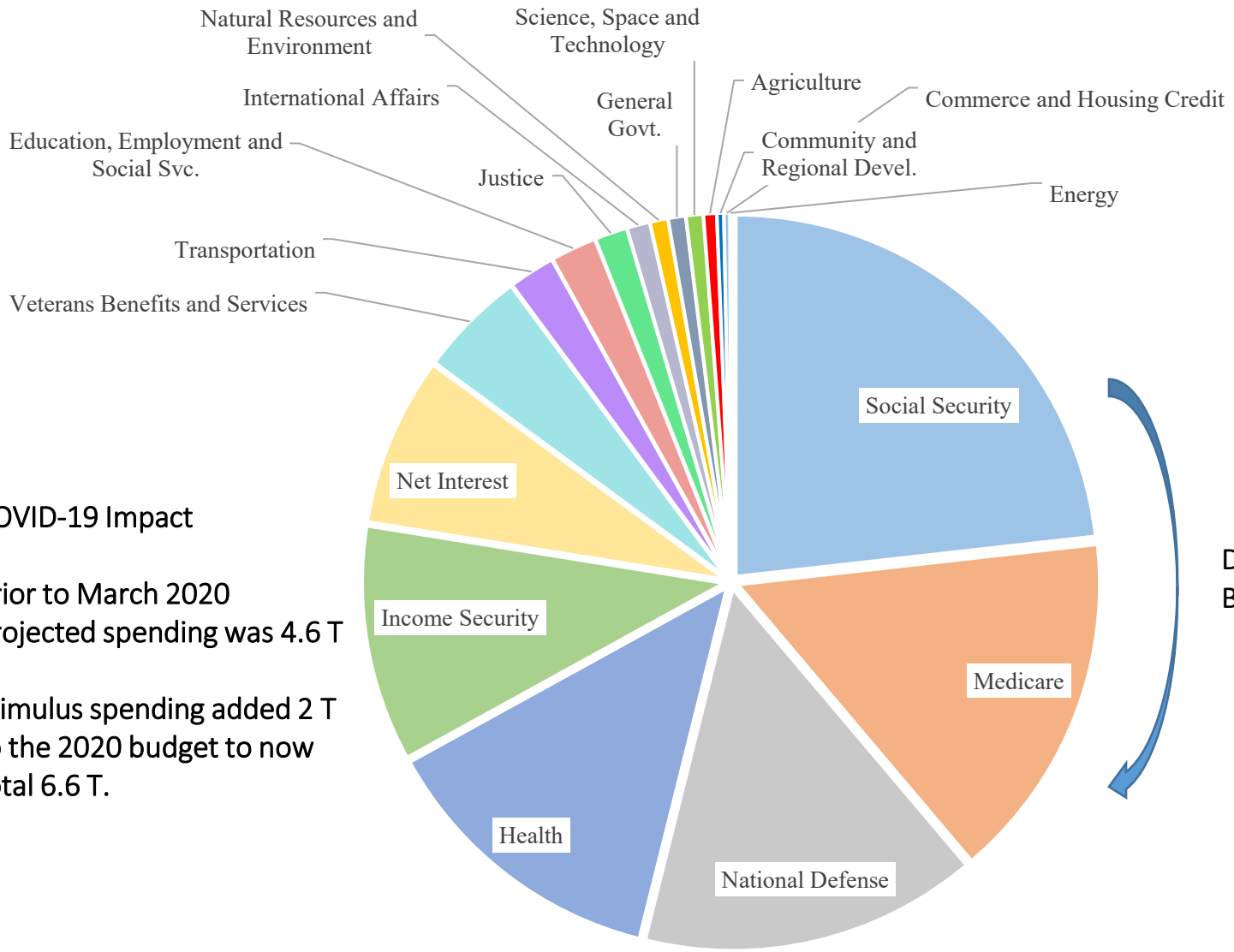
Federal Spending Distribution



COVID-19 Impact

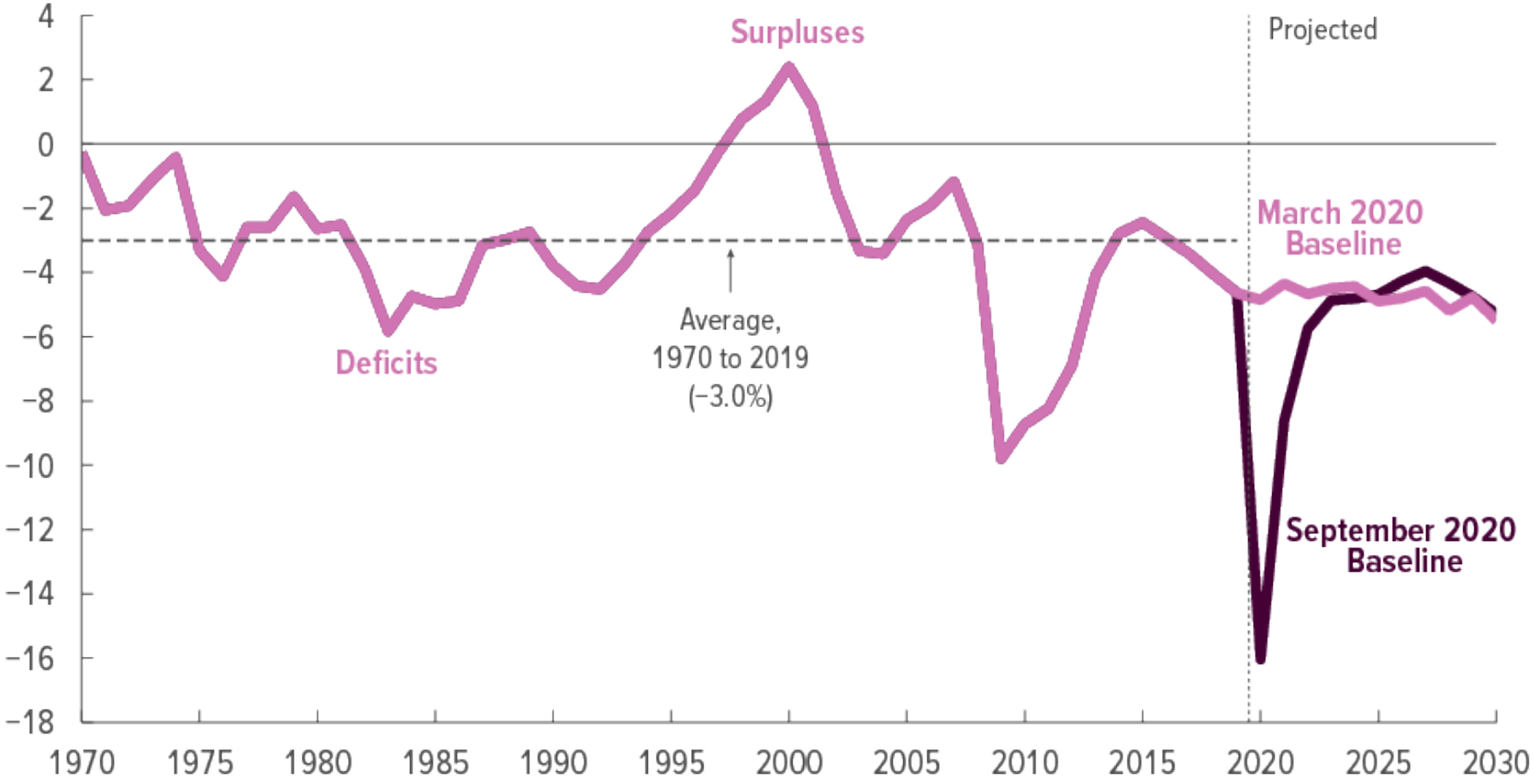
Prior to March 2020
Projected spending was 4.6 T

Stimulus spending added 2 T to the 2020 budget to now total 6.6 T.

Decreasing Order By Amount

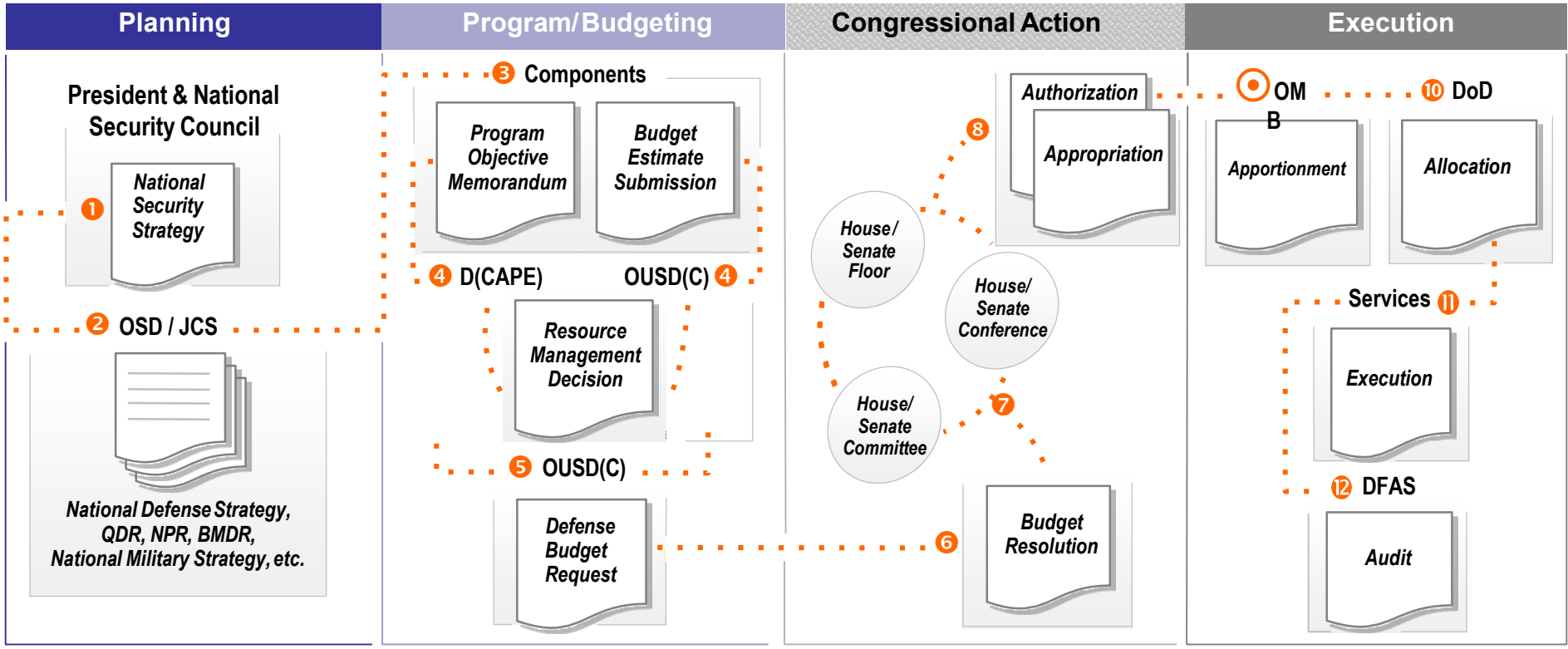
Federal Government Spending by Function for 2021
Source: U.S. Budget Historical Tables: Table 5.1 Budget Authority by Function and Subfunction:1976-2025

CBO Defecit Projection

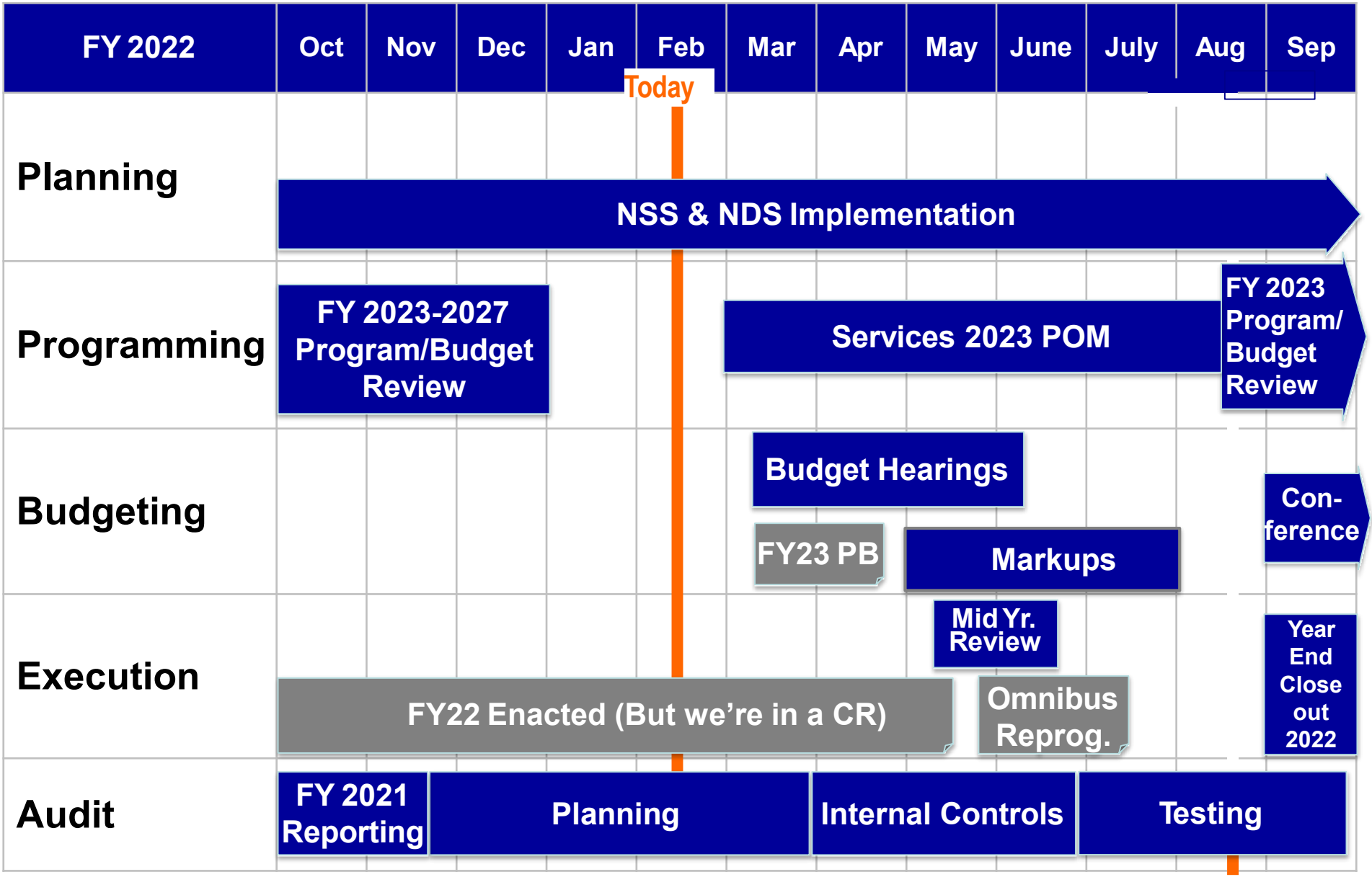


Source: CBO September 2020 Update to Budget Outlook
https://www.cbo.gov/publication/56542

DoD Planning, Programming, Budgeting and Execution (PPBE Process)



Snapshot: Where are we?



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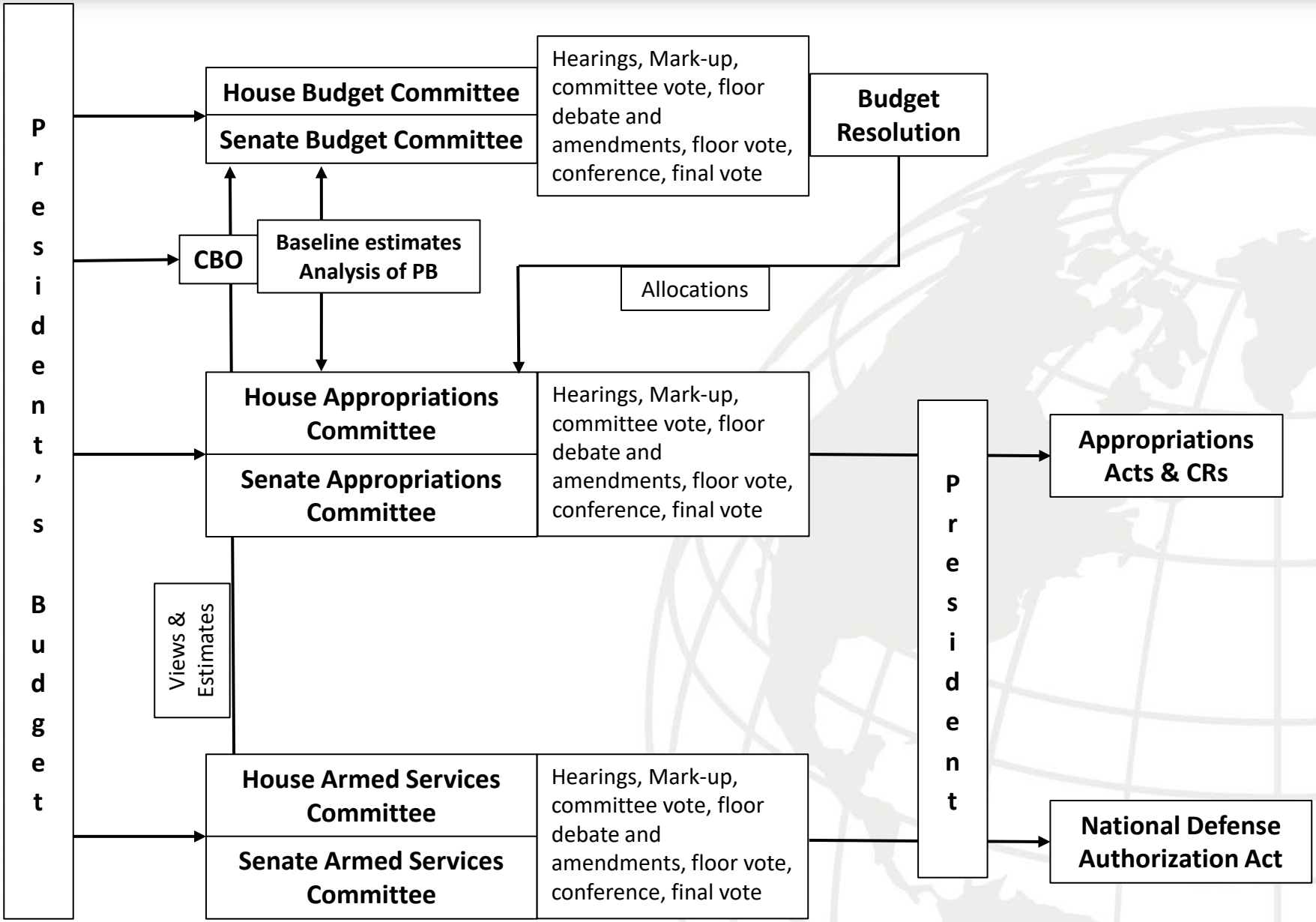
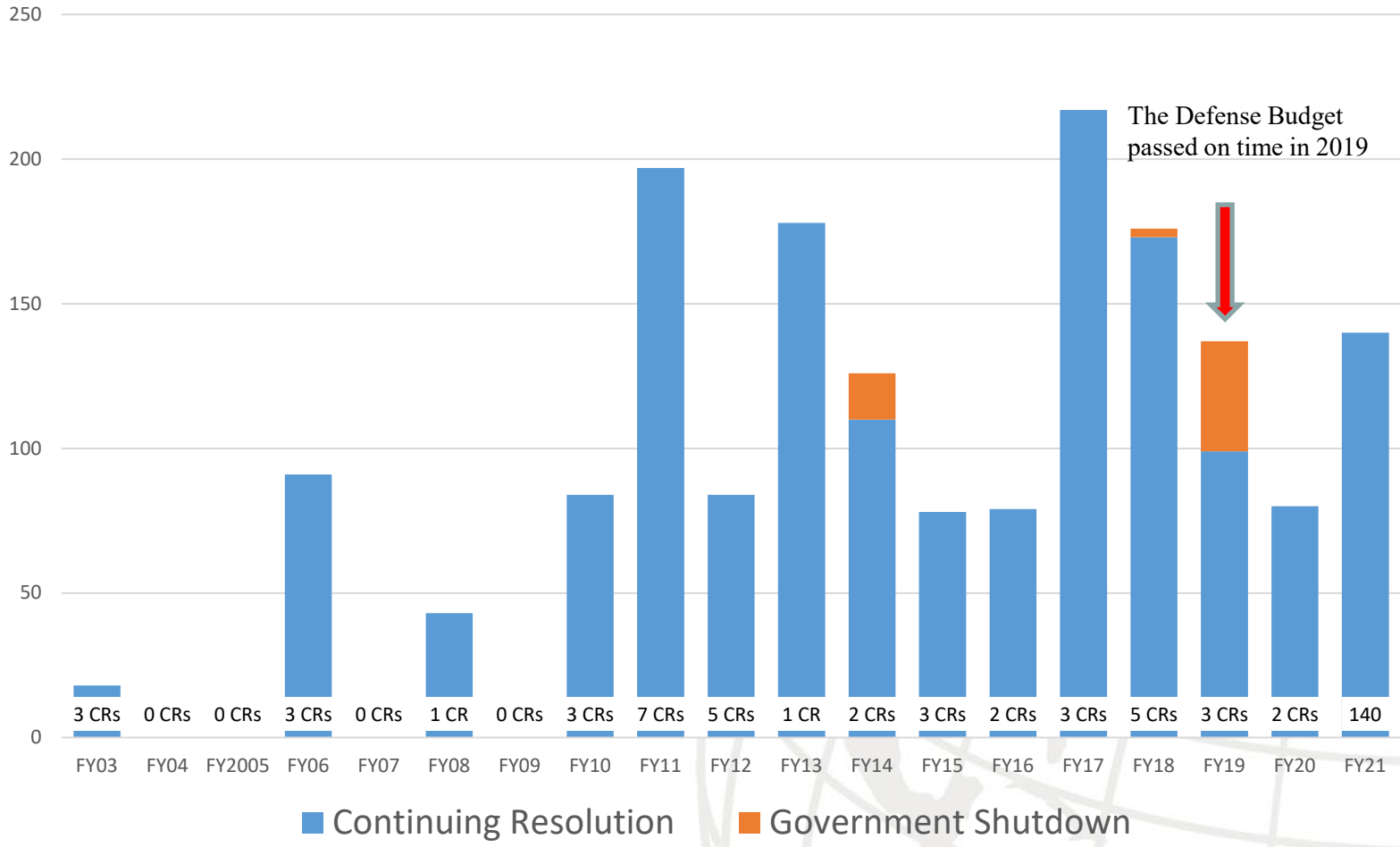
Congressional Budget, Authorization, & Appropriations Process for National Defense



Continuing Resolutions

Continuing Resolutions and Government Shutdowns by Fiscal Year

Average Duration of CR Status - 88 days



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Research Question

- How do Continuing Resolutions affect agency-level performance?
- Can we measure behavioral changes in governmental activity associated with these high-level budgetary conditions?
- Aspirational: Can measurements of the costs of CRs affect policymakers perceptions of budgetary politics?

Managerial Impacts of Continuing Resolutions

- Continuing Resolutions create uncertainty for public managers regarding their current and total budget authority (Rubin 2007)

- Continuing Resolutions impose both legal and administrative restrictions on government activities. (Herrmann 2017)
  - Service Contracts can only last for the duration of the CR
  - No new programs or line items may be initiated
  - Agencies issue directives to minimize spending

- Continuing resolutions are a persistent condition associated with a highly politicized and contested budgetary process (Joyce 2008)

- Research Opportunity: Prior work on Continuing Resolutions has produced narratives of how agency-level operations are affected, but has not yet quantified these effects.

Examples of Effects Outside of the DoD

- NIH reduced research grant awards to a maximum of 90% of previously committed levels. (https://grants.nih.gov/grants/guide/notice-files/not-od-20-003.html)

- HUD funding may be insufficient for "contract renewals, Service Coordinator funding, and increases to reserve accounts…" Also would affect Section 202 Housing for the elderly account (LeadingAge.org)

- NASA impaired on starting new programs or continuing programs that are entering a phase of significantly increased spending. (Planetary.org)

Continuing Resolutions and Public Procurement

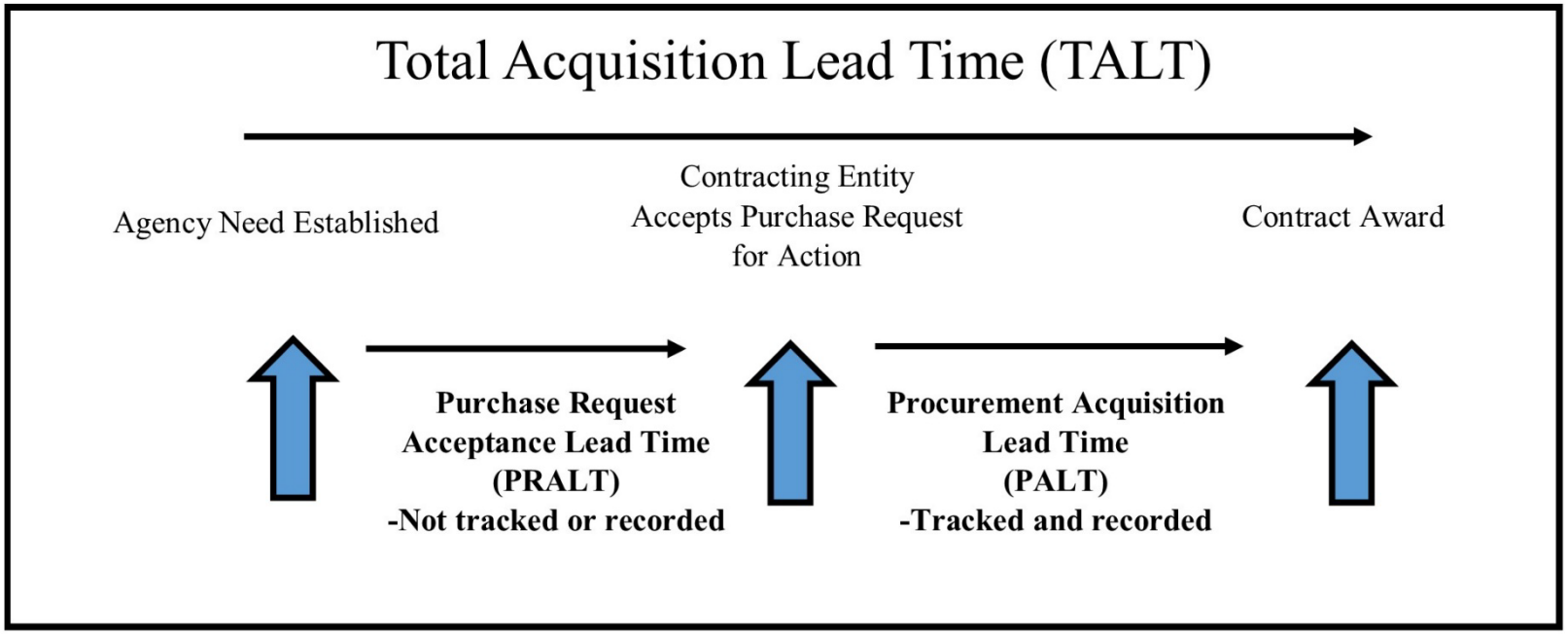


Figure 1. TALT Components. Source: Letterle and Kantner (2019)

Hypotheses

- Hypothesis 1: Fewer purchase requests are initiated during continuing resolutions.
- Hypothesis 2: The PRALT time period will increase during continuing resolutions.
- Hypothesis 3: The average dollar amount of purchase requests will decrease during continuing resolutions.

Pathways of Influence

- Legal and administrative hurdles may reduce the quantity and size of purchase requests
- Additional administrative review tasks may increase the review period for individual requests
- Employee risk-aversion may induce employees to delay spending to avoid compliance and administrative costs
- Seasonality of federal spending (use it or lose it) may create an underlying spending trend that overlaps with the effect of a continuing resolution

Data

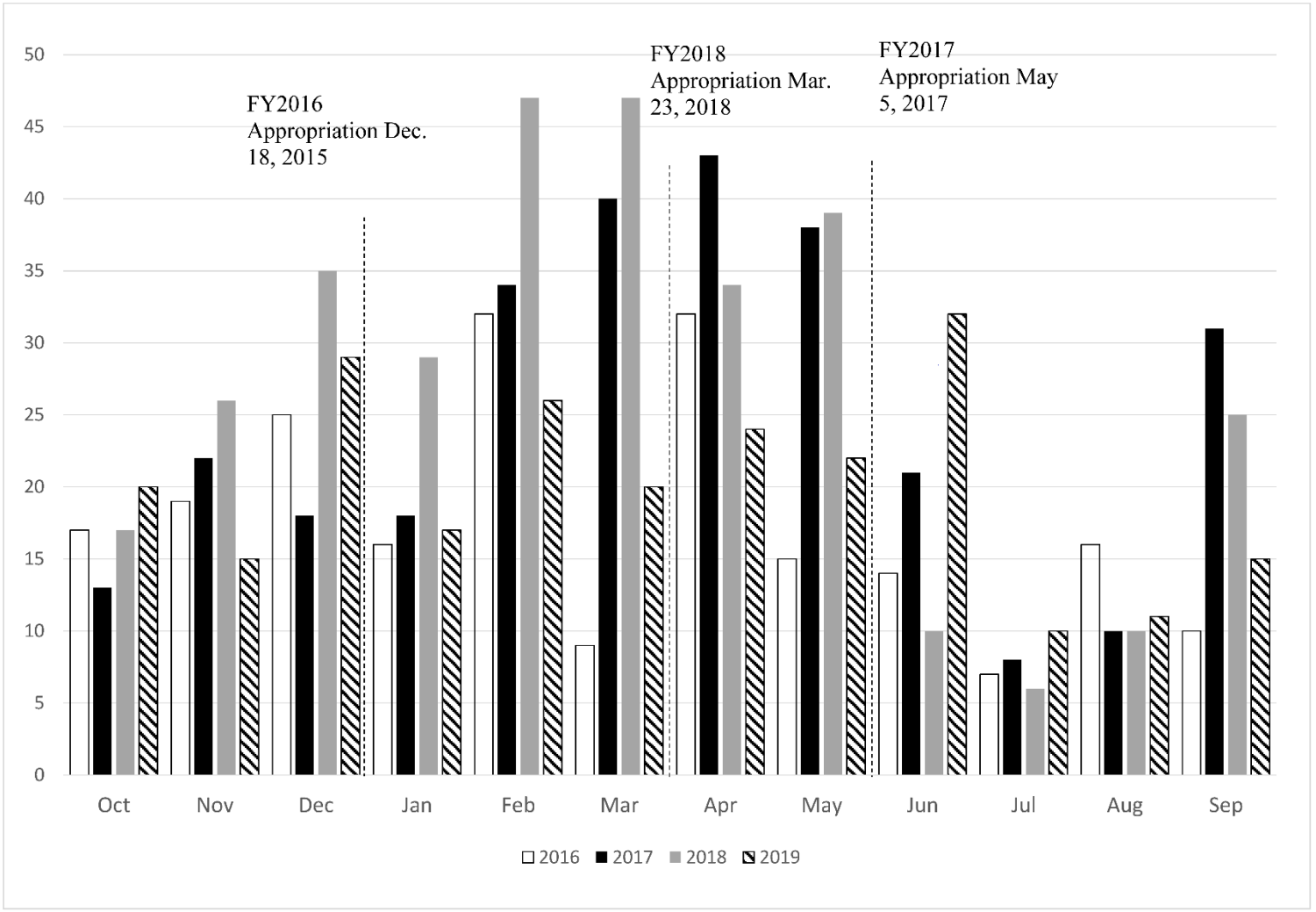
- Random sample of 1,074 purchase requests from the United States Marine Corps "PR Builder" database
- Requests sampled from 2016-2019. 2019 did not have a CR for defense spending (only for non-defense spending)
- In addition to the control year, a series of seasonal controls to measure the seasonal trend are also included
- Limited requests to orders for less than $250,000 to remain under the "simplified acquisition threshold"
- Fields include: creation date, acceptance date, total dollar amount, good/service indicator, reviewing official id code, adjustments made to the purchase request

Descriptive Statistics

Table 1. Summary statistics of PRALT length and total price, differentiated by good/service and continuing resolution status.

		Continuing Resolution		Full Budget Authority		Overall	
		Service	Good	Service	Good		
Number of Purchase Orders		148	80	530	316	Total Goods Services	1,074 396 678
PRALT Length in Days	Mean	101	47.1	65.2	30.9		58.7
	Std Dev	(173.5)	(76.3)	(119.1)	(50.1)		(113)
Total Price	Mean	$39,281	$45,917	$57,544	$31,618		$46,533
	Std Dev	($53,990.7)	($75,002.4)	($63,626.5)	($50,148.2)		($60,665)
Adjustments	Mean	4.8	3.3	5.1	3.3		4.4
	Std Dev	(3.8)	(3.7)	(5.4)	(3.9)		(4.7)

Purchase Request Distribution



Methodology

- Poisson Regression & OLS Regression to estimate the impact of CR status on the weekly count of purchase orders initiated
- OLS Regression to estimate the impact of CR status on the length of time to approve a request and the total dollar amount of individual requests
- Include controls for fiscal year, quarter of fiscal year, and in the OLS models an interaction between CR status and goods/services
- The OLS models also include fixed effects for the reviewing officer

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Results – Poisson and OLS Regression on Purchase Orders Initiated Per Week

	OLS Regressions			Average Partial Effects from Poisson Regression		
	(1)	(2)	(3)	(4)	(5)	(6)
Count of Purchase Orders	Total Orders	Service Orders	Goods Orders	Total Orders	Service Orders	Goods Orders
Indicator of Continuing Resolution (CR)	-2.324***	-1.200**	-1.125**	-2.238***	-1.237**	-0.952**
	(0.793)	(0.545)	(0.449)	(0.781)	(0.539)	(0.456)
Fiscal Year 2017	2.465***	1.400**	1.065**	2.447***	1.409**	1.024**
	(0.780)	(0.569)	(0.427)	(0.776)	(0.562)	(0.445)
Fiscal Year 2018	2.620***	1.365**	1.255***	2.542***	1.328**	1.207***
	(0.766)	(0.569)	(0.431)	(0.722)	(0.538)	(0.415)
Fiscal Year 2019	0.066	0.535	-0.469	0.299	0.593	-0.278
	(0.621)	(0.471)	(0.328)	(0.530)	(0.417)	(0.276)
FYQ1 (Oct.−Dec.)	-1.577*	-0.589	-0.988**	-2.143**	-0.792	-1.452**
	(0.823)	(0.535)	(0.478)	(0.903)	(0.569)	(0.574)
FYQ2 (Jan.−Mar.)	-0.311	-0.112	-0.200	-0.172	-0.0625	-0.103
	(0.759)	(0.488)	(0.471)	(0.706)	(0.471)	(0.427)
FYQ3 (Apr.−June)	0.390	0.708	-0.317	0.345	0.607	-0.244
	(0.838)	(0.620)	(0.449)	(0.667)	(0.501)	(0.353)
Constant	4.943***	2.790***	2.153***			
	(0.622)	(0.443)	(0.384)			
Observations	208	208	208	208	208	208
R-Squared	0.199	0.118	0.183			
Psedudo R-Squared from Poisson				0.102	0.0580	0.105

Note: Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Results - OLS Results of Length of PRALT Period

Days to Purchase Request Acceptance	(1) Base Model	(2) Goods Interaction	(3) Seasonal Controls	(4) Seasonal Controls and Goods Interaction
Indicator of Continuing Resolution (CR)	23.918**	32.741**	5.617	15.416
	(10.170)	(14.389)	(11.749)	(15.890)
Purchase Order for Goods (GOOD)	-9.736*	-4.508	-9.349*	-3.666
	(4.964)	(5.643)	(4.890)	(5.462)
Interaction CR*GOOD		-24.831*		-27.165*
		(14.966)		(15.542)
Count of Adjustments Made to the PR	8.390***	8.386***	8.365***	8.366***
	(1.136)	(1.139)	(1.138)	(1.142)
Fiscal Year 2017	19.121	20.292	25.497**	26.791**
	(12.411)	(12.338)	(12.644)	(12.586)
Fiscal Year 2018	26.975**	27.291**	28.350***	28.645***
	(10.826)	(10.768)	(10.654)	(10.603)
Fiscal Year 2019	2.367	3.410	-1.530	-0.383
	(9.584)	(9.539)	(9.281)	(9.241)
FYQ1 (Oct.−Dec.)			29.823**	29.330**
			(12.026)	(12.109)
FYQ2 (Jan.−Mar.)			30.780***	31.654***
			(7.720)	(7.843)
FYQ3 (Apr.−June)			16.113**	16.489**
			(7.644)	(7.616)
Constant	-27.712***	-30.105***	-42.415***	-45.358***
	(10.492)	(10.384)	(12.505)	(12.378)
Observations	1,074	1,074	1,074	1,074
R-squared	0.275	0.277	0.282	0.285
Linear combination of CR and CR*GOOD		7.909		-11.749
		(7.689)		(9.360)

Robust standard errors in parentheses

Note: A series of dummy variables controlling for the unique identities of the supply officers and reviewing officials involved in processing the purchase requests were also included in the model. 27 dummies for the supply officers and 12 dummies for the reviewing officials were included. The estimates of these control variables are not included in the table, but available upon request.

*** p<0.01, ** p<0.05, * p<0.1

Results – OLS Results of Total Dollar Amount of Purchase Requests

	(1)	(2)	(3)	(4)
Real Dollar Amount Per Purchase Request	Base Model	Goods Interaction	Seasonal Controls	Seasonal Controls and Goods Interaction
Indicator of Continuing Resolution (CR)	-2,238.1	-6,712.8***	557.9	-4,016.2
	(2,023.7)	(2,187.5)	(2,825.2)	(2,952.4)
Purchase Order for Goods (GOOD)	-5,189.9***	-7,841.5***	-5,082.0***	-7,734.7***
	(1,641.5)	(1,822.1)	(1,637.9)	(1,821.3)
Interaction CR*GOOD		12,594.1***		12,680.4***
		(4,336.1)		(4,363.9)
Count of Adjustments Made to PR	444.5**	446.6**	461.4**	460.9**
	(213.5)	(211.2)	(214.6)	(211.9)
Fiscal Year 2017	4,471.7	3,877.8	3,574.1	2,970.1
	(2,748.9)	(2,714.8)	(2,822.3)	(2,793.1)
Fiscal Year 2018	1,257.8	1,097.6	821.2	683.4
	(2,546.7)	(2,528.8)	(2,560.6)	(2,540.9)
Fiscal Year 2019	2,462.4	1,933.4	3,049.5	2,514.5
	(2,848.4)	(2,826.2)	(2,881.5)	(2,860.8)
FYQ1 (Oct.−Dec.)			-2,702.8	-2,472.5
			(3,310.3)	(3,275.7)
FYQ2 (Jan.−Mar.)			-2,171.7	-2,579.5
			(2,297.3)	(2,306.2)
FYQ3 (Apr.−June)			2,361.8	2,186.0
			(1,982.1)	(1,977.4)
Constant	16,061.1***	17,274.5***	14,952.9***	16,326.4***
	(3,931.5)	(3,940.9)	(4,158.9)	(4,172.6)
Observations	1,074	1,074	1,074	1,074
R-squared	0.096	0.105	0.010	0.109
Linear combination of CR and CR*GOOD		5881.2		8664.3**
		(3826.8)		(4285.2)

Robust standard errors in parentheses

Dollar amounts normalized using Annual Average CPI index for urban consumers.

Note: A series of dummy variables controlling for the unique identities of the supply officers and reviewing officials involved in processing the purchase requests were also included in the model. 27 dummies for the supply officers and 12 dummies for the reviewing officials were included. The estimates of these control variables are not included in the table, but available upon request.

*** p<0.01, ** p<0.05, * p<0.1

Conclusions

- The strongest effects were observed on the count of requests initiated per week and the total dollar amount per purchase requests.
  - The count regressions showed similar impacts on goods and services, though the Poisson regressions suggested a marginally larger reduction among service requests.
  - The count regressions were the most clearly differentiated from seasonality controls
  - The $ amount OLS regressions also showed significant impacts after controlling for seasonality.
  - Wider differential between goods and services, suggesting the $ amount of service requests is suppressed relative to commodities when in CR.
  - PRALT length was suggestive of a CR effect, but overall was inconclusive once controlling for seasonality.
- If this is a repeated condition that happens more often than not, why aren't we better at preparing for it? People in Seattle learn to carry umbrellas.

Conclusions Continued

- Application of Organizational Publicness Theory
  - One Dimension is Political Control
  - Do we need to expand this to differentiate between intentional control and unintentional control?

Contact Info

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Supplemental Slides