

Government Outsourcing
and Employee Job Satisfaction
- A Test of New Public Management Orthodoxy

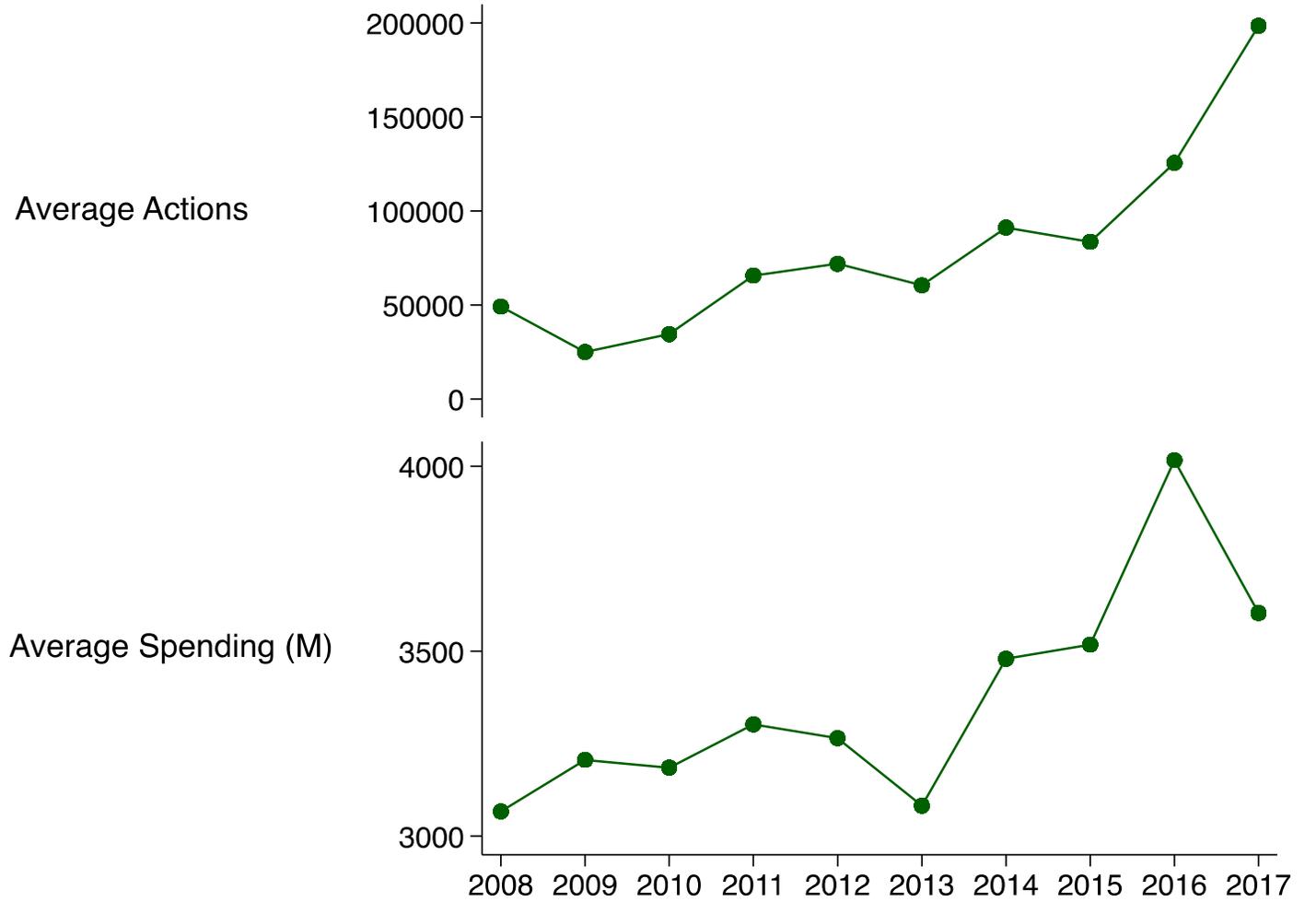
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Research Background (1)

- Extensive implementation of New Public Management (NPM) movement since 1990s
- Most of the reform efforts center on the theme of greater market mechanisms in the delivery of publicly funded services.
- The most popular tool is outsourcing (or contracting out).
 - Public organizations shift the provision of public goods and services to other organizations, such as private, non-profit, or other government agencies.

Recent Trend of US Federal Outsourcing



Research Background (2)

- Limited progress in understanding the broad consequences of government outsourcing
 - Outcomes of government outsourcing: market-oriented values (efficiency & quality)
 - Relatively fewer studies on the outcomes of outsourcing from employee perspective
 - Transaction cost economics (TCE) literature: “disgruntled employees” by outsourcing
 - Limited implications by data and methodological issues
 - Cross-sectional data from employees *transferred to* contractors (see Vrangbæk et al. 2015)
 - No distinction between *different types* of government outsourcing (e.g., Brown II & Kellough 2019; Lee et al. 2019; Lee & Lee 2020)



Research Question

- Consequences of Government Outsourcing
 - Remaining employees' job satisfaction
 - Outsourcing 'services' to private vendors: The case of Internal Revenue Service(IRS)'s Private Debt Collection (PDC)
 - Quasi-experimental design: Difference-in-differences (DiD) method

Developing Hypotheses (1)

- Negative Outcomes
 - Negative changes in workforce composition such as workforce reduction (Brown II & Kellough 2019; Hodge 2000; Savas 2000)
 - A breach of transactional psychological contract caused by a fear of job loss (Datta et al. 2010)
 - Too much emphasis on market-oriented values over public values (Diefenbach, 2009)
 - Undermining public service motivation among remaining public employees

H1a. Government outsourcing negatively affects employee job satisfaction.

Developing Hypotheses (2)

- Positive Outcomes
 - “New knowledge or ideas of improved routines, methods, processes... (Lindholst et al. 2018)”
 - Better efficiency and performance will lead to higher job satisfaction.
 - Outsourcing of non-core functions will lower work-load (Belcourt 2006).

H1b. Government outsourcing positively affects employee job satisfaction.

Developing Hypotheses (3)

- Heterogeneous interests of public employees toward outsourcing
 - Previous evidence on different motivation and work attitudes between supervisors and employees (e.g., Rubin & Weinberg 2014)
 - Street-level or non-supervisor employees may hold a different level of concern on their employment status (or job security) (Government Business Council 2015).

H2. Government outsourcing has different effects on job satisfaction between supervisors and employees.

Methods (1): Data

- Data
 - Federal Employee Viewpoint Survey(FEVS): 2013-2018
 - Yearly survey on federal employees' perceptions in their work experiences, such as leadership, managerial practices, and relationship among employees
 - Stratified sampling for each federal agency

Methods (2): Variables

- Dependent Variable: Employee Job Satisfaction
 - “Considering everything, how satisfied are you with your job?”
 - Data coding
 - 0 = strongly dissatisfied, dissatisfied, and neutral
 - 1 = satisfied, strongly satisfied
 - How to interpret? Proportion of employees who satisfy with their job
- Control Variables
 - Supervisor status
 - Gender
 - Minority

Methods (3): Quasi-Experimental Design

- Benefits of Quasi-Experimental Design
 - Pretest and posttest comparison between treatment and control groups
 - Overcome challenges in applying true experimental design
- Estimation Models: Difference-in-Differences(DiD)
 - Estimate an effect of ***a specific policy or program intervention*** through comparison of the changes in the dependent variable over time between treatment and control groups
 - **Intervention:** Outsourcing agencies' services or program to private or non-governmental firms

Methods (4): The Case of IRS Outsourcing

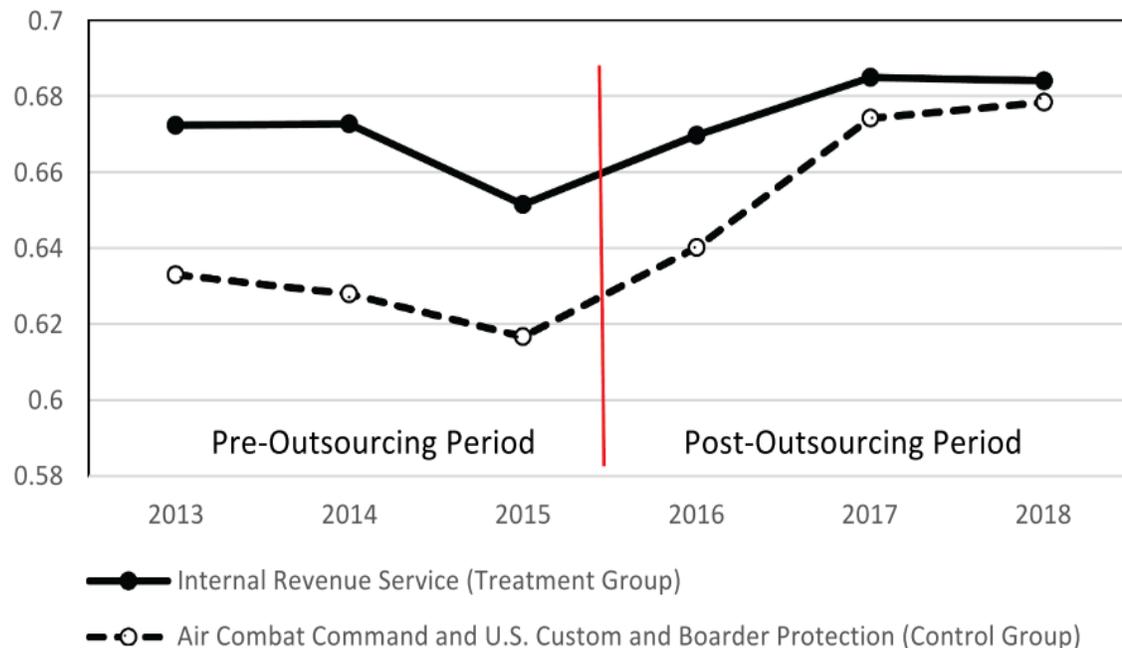
- Outsourcing Delinquent Tax Collections
- The Fixing America's Surface Transportation (FAST) Act in December 2015
 - Included a provision requiring the IRS to use Private Debt Collection (PDC) agencies for collecting inactive tax receivables.
- The IRS began implementing the initiative in 2016.
 - Four private collection agencies including CBE, ConServe, Performant, and Pioneer
- Two previous initiatives in 1995 and 2006

Methods (5): Analytical Approaches

- Difference-in-Differences Model
 - Pre-intervention period of 2013-2015 & Post-intervention period of 2016-2018
 - A Control Group: Air Combat Command (of the Department of the Air Force); U.S. Customs and Border Protection (of the Department of Homeland Security)
 - Exhibit a similar outcome trend for employee job satisfaction in the pre-outsourcing (2013-2015) period
 - Have not experienced outsourcing services between 2013 and 2018
- OLS Regression Equation: Difference-in-Differences Model
$$Jobsatisfaction = \beta_0 + \beta_1 IRS + \beta_2 Outsourcing + \beta_3 IRS * Outsourcing + \chi\beta + \varepsilon$$
- OLS Regression Equation: Difference-in-Difference-in-Differences Model
$$Jobsatisfaction = \beta_0 + \beta_1 IRS + \beta_2 Outsourcing + \beta_3 IRS * Outsourcing + \beta_4 IRS * Supervisor + \beta_5 Outsourcing * Supervisor + \beta_6 IRS * Outsourcing * Supervisor + \chi\beta + \varepsilon$$

Methods (6): Common Trends Assumption

- A Visual Inspection



- A Falsification Test (O’Neill et al. 2016)
 - Statistically insignificant effect of DiD interaction variable: support the common trend assumption (test result in appendix).
 - One agency in the control group as “treatment group”
 - Other agencies in the control group as “control group”

Results (1)

- Difference-in-Differences Model

	Model 1	
	Coefficient (SE)	
IRS*Outsourcing	-0.038***	(0.004)
IRS	0.107***	(0.003)
Outsourcing	0.050***	(0.004)
Supervisor	0.112***	(0.002)
Gender (Male)	-0.018***	(0.002)
Minority	0.015***	(0.002)
R Squared	0.0154	
N	321,459	

Note: Unstandardised coefficients. Robust standard errors are in parentheses.

* p < .10, ** p < .05, *** p < .01

```
** Difference-in-Difference: Controls **
reg jobsatisfaction i.irs##i.outsourcing if subagency=="TR93" | subagency=="AF1C" |
subagency=="HS02", r

reg jobsatisfaction i.irs##i.outsourcing gender supervisor minority if subagency=="TR93"
| subagency=="AF1C" | subagency=="HS02", r

reg jobsatisfaction i.irs##i.outsourcing gender supervisor minority i.year i.subagency_id
if subagency=="TR93" | subagency=="AF1C" | subagency=="HS02", r
```

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- Difference-in-Differences Model

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- Negative effect of outsourcing on employee job satisfaction in IRS ($p=.001$)
- 3.8 percentage point lower than previous years after outsourcing
- Support *Hypothesis 1a*

Results (2)

- Difference-in-Difference-in-Differences Model

	Model 2	
	Coefficient (SE)	
IRS*Outsourcing*Supervisor	-0.011	(0.009)
IRS	0.110***	(0.004)
Outsourcing	0.048***	(0.004)
Supervisor	0.120***	(0.006)
IRS*Outsourcing	-0.036***	(0.004)
Outsourcing*Supervisor	0.007	(0.007)
IRS*Supervisor	-0.014**	(0.007)
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Results (2)

- Difference-in-Difference-in-Differences Model

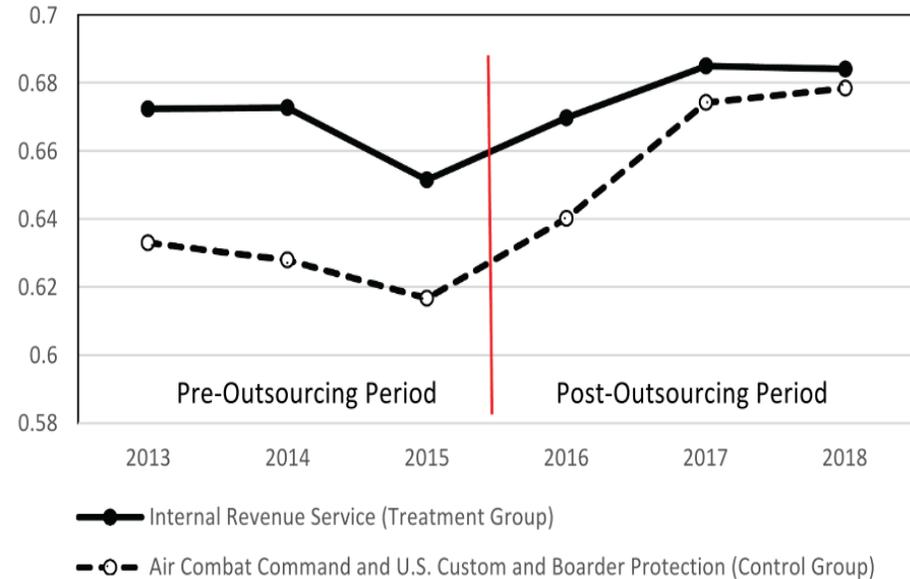
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- No statistically significant evidence on differing effects of outsourcing on job satisfaction between supervisors and employees
- No support *Hypothesis 2*

Results (3): More Results

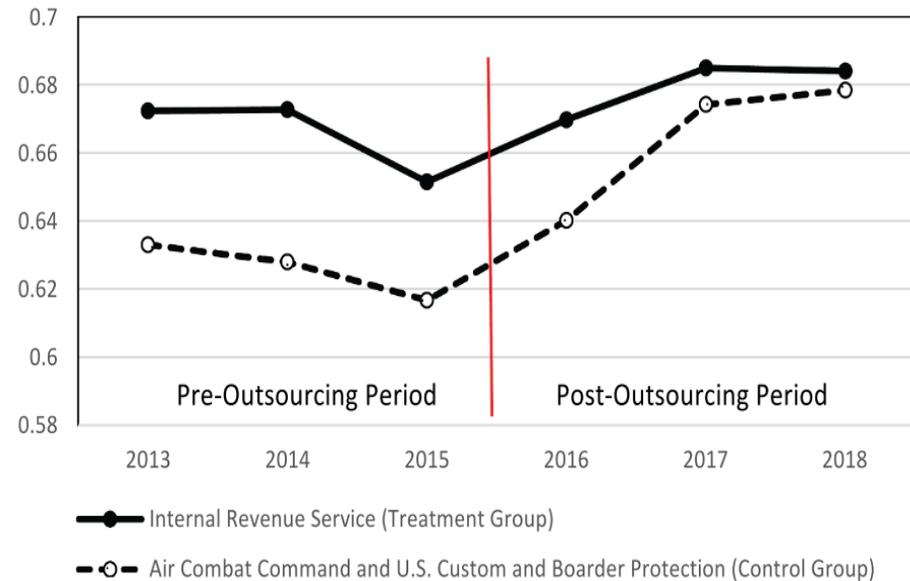


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Results (3): More Results



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Results (4): Robustness Check

- Falsification Test

	Model 1	
	Coefficient (SE)	
Treatment*Outsourcing	-0.043	(0.019)
Treatment	0.181***	(0.003)
Outsourcing	0.048***	(0.004)
Supervisor	0.132***	(0.002)
Gender (Male)	-0.029***	(0.002)
Minority	0.050***	(0.002)
R Squared	0.0287	
N	100,683	

```
*** Falsification Test
treatment agency: AF1C
control agency: HS02

gen treatment=.
replace treatment=1 if subagency=="AF1C"
replace treatment=0 if subagency=="HS02"

reg jobsatisfaction i.treatment##i.outsourcing gender supervisor minority , r
reg jobsatisfaction i.treatment##i.outsourcing gender supervisor minority i.year , r
reg jobsatisfaction i.treatment##i.outsourcing##i.supervisor gender supervisor minority i
.year, r
```

Note: Unstandardized coefficients. Robust standard errors are in parentheses.

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Discussions

- Implications

- Positive outcomes of outsourcing in employee work attitudes by its proponents may be short-sighted.
 - Evidence supporting the different perspective on the potential outcomes of outsourcing in employee work attitudes and motivation (Lindholst et al. 2018)
 - No much improvement in performance: The current initiative has collected 1 percent of \$ 4.1 billion assigned by 2025.
 - Confirmed personal interviews with two former supervisors of IRS.
- No differing effects of outsourcing between supervisors and line-employees.
 - Both groups seem to hold common concerns (job loss and poor performance).

Limitations

- Another exogenous events causing the change in job satisfaction?
 - No other changes in IRS (confirmed by former supervisors)
- Measure of overall job satisfaction?
 - No direct measure of the satisfaction with outsourcing

Thank You!

Appendix (1): Job Satisfaction Trend

Year	Internal Revenue Service			U.S. Customs and Boarder Protection Agency			Air Combat Command		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
2013	0.672	0.469	34,373	0.557	0.497	8,377	0.709	0.454	791
2014	0.673	0.469	35,631	0.540	0.498	10,888	0.716	0.451	1,918
2015	0.651	0.477	36,427	0.531	0.499	11,050	0.703	0.457	1,813
2016	0.670	0.470	31,073	0.576	0.494	12,282	0.705	0.456	1,530
2017	0.685	0.464	30,246	0.627	0.484	11,966	0.721	0.449	1,532
2018	0.684	0.465	53,026	0.628	0.488	33,582	0.728	0.447	4,952

Appendix (2): IRS Descriptive Statistics

	2013	2014	2015	2016	2017	2018
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Job Satisfaction: Supervisor	0.762 (0.426)	0.752 (0.432)	0.748 (0.434)	0.761 (0.426)	0.760 (0.427)	0.771 (0.420)
Job Satisfaction: Employee	0.622 (0.475)	0.658 (0.474)	0.634 (0.482)	0.652 (0.476)	0.671 (0.470)	0.668 (0.471)
Supervisor	0.159 (0.366)	0.157 (0.354)	0.155 (0.362)	0.162 (0.368)	0.160 (0.367)	0.160 (0.363)
Gender (Male)	0.384 (0.486)	0.386 (0.487)	0.382 (0.486)	0.383 (0.486)	0.385 (0.486)	0.393 (0.489)
Minority	0.367 (0.482)	0.381 (0.486)	0.393 (0.488)	0.393 (0.488)	0.403 (0.491)	0.410 (0.492)

Appendix (3): Assumption Test

- Falsification Test
- Treatment: AF1C / Control: HS02

	Model 1	
	Coefficient (SE)	
Treatment*Outsourcing	-0.043	(0.019)
Treatment	0.181***	(0.003)
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