GOV 1006: Milestone 6

Paper Replication

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Abstract

Bauer (2018) finds that there is no consistent relationship between unemployment and one's trust in government and their satisfaction with democracy. I was able to completely replicate the majority of his findings aside from a summary table of the data. My extension evaluates how consistent or long-term unemployment may impact one's views. Rather than examining the effects of just a single year of unemployment, as Bauer did, I track unemployment trends over longer periods of time to see if extended periods of unemployment have a stronger impact on one's feelings towards the government and its institutions.

0.1 Introduction

The paper I have chosen for my replication project is entitled "Unemployment, Trust in Government, and Satisfaction with Democracy: An Empirical Investigation" (Bauer (2018)).[1] It was authored by Paul C. Bauer in 2018. The purpose of the paper is to evaluate how unemployment affects a person's trust in the government and their views towards democracy in general. Bauer begins with macro level data from the Netherlands and Switzerland to construct his analysis but expands to utilize panel data so as to evaluate the relationship on an individual level.

The aim of Bauer's paper is to show how unemployment influences a person's trust in government, satisfaction with democracy, and life satisfaction in general. Bauer also controls for variations in age, education, and party membership. Because the link between life satisfaction and unemployment is somewhat more widely studied, Bauer uses that as a base metric to evaluate the magnitude of the other effects upon. All three dependent variables (trust in government, satisfaction in democracy, and life satisfaction) are measured on a 1-10 scale with 0 indicating no trust or satisfaction and 10 indicating complete trust or satisfaction.

Bauer finds that there is no consistent effect between unemployment and trust in the government or satisfaction with democracy. These findings contradict his initial hypothesis that unemployment would lead people to have lower levels of trust and satisfaction with the government and democratic institutions. However, Bauer does find that unemployment is negatively related to life satisfaction. People who are unemployed are generally less satisfied with their lives than those who are employed. This finding is consistent with previous research on the topic. Moving forward, Bauer hopes to increase the sample size of the studied group to further explore heterogenous treatment effects across various subgroups of individuals. For example, he hypothesizes that the effect of unemployment on attitudes may be greater among people traditionally disadvantaged in the labor market such as women and workers of a lower-class.

0.2 Replication

I the appendix, I provide five replicated tables from the original publication. Of the five, Tables 1,3,4,5 were all replicable with no discrepencies. However, my replication of Table 2, did not completely match that of

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[1] The replication materials for this paper and my subsequent analyses can be found at my Github Repo and the published paper is availabe through bookdown.

the paper. In reviewing the source code for Bauer's paper, it appears as though he inputs that table from another source. In his replication material, I can find where Bauer creates each of the other tables but not Table 2. Nonetheless, I attempted to replicate the table and largely suceeded. There were two variations between our tables. Bauer's table lists the absence of results for the SHP Life Satisfaction survey in 2010 whereas I have results and his lists the presence of results for the SHP Satisfaction with democracy survey in 2012 whereas in mine that is absent. These discrepencies need to be explored further.

0.3 Extension

The fundamental motivation beyond Bauer's paper is to study how unemployment affects trust in government and satisfaction in democracy. The goal of my extension to provide further insights and clarity into that relationship.

Because Bauer's paper utilizes panel data, it tracks households across time, providing an opportunity to analyze multi-year changes. In his conclusion, Bauer discusses the limitations of the paper and a desire to explore how the effects may differ for people experiencing long-term versus short-term unemployment. Though Bauer, correctly, ackowledges more data is needed to robustly analysize long-term verus short-term unemployment, I decided to utlize the data provided to get a sense of the relationship.

My aim was to analyze the data and identify households with multi-year unemployment reports or consistent, though not continuous, reports of unemployment across a period of time. By identifying these households, I intended to test how their unemployment experiences effected their views on democracy and the government and compare that to households with singular reports of unemployment and households without unemployment. My hypothesis was in line with Bauer's. I predicted that households experiencing long-term or more frequent unemployment may feel more disheartened with the current state of government than households with a single year of unemployment or households without unemployment.

To actually conduct the extension, I created a new variable indicating whether someone had been unemployed the year before, lagged unemployment. I added the lagged unemployment variable to the regressions conducted by Bauer as an interaction with unemployment. The coefficient on the interaction term represents a household with unemployment in the present year and in the year before. The interaction coefficient is the one I am most interested in. As Bauer did, I ran three sets of linear regressions with the added lagged unemployment term: a standard pooled model, a fixed effects model, and a weighted fixed effects model.

Table 1: SHP Switzerland and LISS Netherlands: fixed effects models with lagged unemployment

	Dependent variable:											
	trust in government		statfisfaction with democracy		life satisfaction		trust_in_government		satisfaction_with_democracy		life_satisfaction	
	(M13)	(M14)	(M15)	(M16)	(M17)	(M18)	(M19)	(M20)	(M21)	(M22)	(M23)	(M24)
Unemployed	−0.07	0.06	−0.04	−0.05	−0.47***	−0.56***	−0.30***	−0.08	−0.06	0.14	−0.43***	−0.39*
	(0.05)	(0.08)	(0.05)	(0.08)	(0.03)	(0.06)	(0.08)	(0.12)	(0.07)	(0.10)	(0.05)	(0.07)
Lagged Unemployed		−0.09		−0.19***		0.01		0.17		0.22*		−0.0
		(0.08)		(0.07)		(0.05)		(0.15)		(0.13)		(0.09)
Unemployed:Lagged Unemployed		−0.06***		−0.002		−0.03***		−0.18***		−0.06***		−0.03*
		(0.003)		(0.003)		(0.002)		(0.01)		(0.01)		(0.005)
Age		−0.01		0.004		0.01		−0.08		−0.06		0.07*
		(0.01)		(0.01)		(0.01)		(0.06)		(0.05)		(0.03)
Education		0.05**		0.002		0.0004		0.02		0.07**		−0.0
		(0.02)		(0.02)		(0.02)		(0.04)		(0.03)		(0.02)
Member		−0.03		0.17		−0.33***		−0.25		−0.43**		−0.0
		(0.16)		(0.15)		(0.12)		(0.23)		(0.19)		(0.13)
Observations	52,535	34,731	52,498	34,673	62,562	35,316	20,703	13,634	20,109	13,282	21,831	13,59
R²	0.0000	0.01	0.0000	0.0003	0.004	0.01	0.001	0.05	0.0001	0.01	0.01	0.01

Note: *p<0.1; **p<0.05; ***p<0...

0.4 Appendix

Table 2: Unemployment across Years

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SHP: employed	4913	4557	4232	3649	3350	5255	4236	4248	4422	4,384	4,457	4,685	4,694	4,576	4,388	
SHP: unemployed	121	79	76	94	104	158	110	123	92	80	116	110	110	82	115	
LISS: employed										4,273	3,422	3,548	2,872	3,181	2,863	3367
LISS: unemployed										74	82	123	87	114	150	183

LISS = Longitudinal Internet Studies for the Social Sciences; SHP = Swiss Household Panel.

Table 3: Measures across panel waves in the SHP and the LISS

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Trust in government (SHP)	-	-	-	-	-	-	-	-	-	-	-			-		
Satisfaction with democracy (SHP	-	-	-	-	-	-	-	-	-	-	-			-		
Life Satisfaction (SHP)			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employment Status (SHP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Trust in government (LISS)										-	-	-	-	-	-	-
Satisfaction with democracy (LISS)										-	-	-	-	-	-	-
Life Satisfaction (LISS)										-	-	-	-	-	-	-
Employment Status (LISS)										-	-	-	-	-	-	-

Table 4: SHP Switzerland and LISS Netherlands: pooled models

	trust in government		statisfaction with democracy		life satisfaction		trust_in_government		satisfaction_with_democracy		life_satisfaction	
	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)	(M7)	(M8)	(M9)	(M10)	(M11)	(M12)
Unemployed	−0.40***	−0.35***	−0.34***	−0.30***	−1.02***	−1.05***	−0.66***	−0.59***	−0.47***	−0.40***	−0.85***	−0.85***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.04)	(0.04)	(0.08)	(0.08)	(0.07)	(0.07)	(0.05)	(0.05)
Age		−0.005***		−0.01***		−0.0004		−0.01***		−0.004***		0.004***
		(0.001)		(0.001)		(0.001)		(0.001)		(0.001)		(0.001)
Education		0.07***		0.09***		0.01***		0.22***		0.27***		0.01
		(0.003)		(0.003)		(0.002)		(0.01)		(0.01)		(0.01)
Member		0.31***		0.21***		0.21***		0.30***		0.32***		0.14***
		(0.02)		(0.02)		(0.01)		(0.03)		(0.03)		(0.02)
Constant	5.55***	5.18***	6.04***	5.71***	7.99***	7.84***	5.45***	4.81***	6.17***	5.05***	7.53***	7.23***
	(0.01)	(0.04)	(0.01)	(0.04)	(0.01)	(0.03)	(0.01)	(0.07)	(0.01)	(0.06)	(0.01)	(0.04)
Observations	52,535	47,789	52,498	47,770	62,562	43,808	20,703	20,259	20,109	19,686	21,831	21,376
R^2	0.001	0.02	0.001	0.02	0.01	0.02	0.004	0.04	0.002	0.06	0.01	0.02

Note: *p<0.1; **p<0.05; ***p<0.01

Table 5: SHP Switzerland and LISS Netherlands: fixed effects models

	trust in government		statisfaction with democracy		life satisfaction		trust_in_government		satisfaction_with_democracy		life_satisfaction	
	(M13)	(M14)	(M15)	(M16)	(M17)	(M18)	(M19)	(M20)	(M21)	(M22)	(M23)	(M24)
Unemployed	−0.07	−0.05	−0.04	−0.07	−0.47***	−0.50***	−0.30***	−0.17**	−0.06	0.02	−0.43***	−0.40***
	(0.05)	(0.06)	(0.05)	(0.05)	(0.03)	(0.04)	(0.08)	(0.08)	(0.07)	(0.07)	(0.05)	(0.05)
Age		−0.06***		0.01***		−0.03***		−0.11***		−0.06***		−0.03***
		(0.003)		(0.002)		(0.002)		(0.01)		(0.01)		(0.004)
Education		−0.003		−0.02**		−0.0004		−0.01		−0.01		0.06***
		(0.01)		(0.01)		(0.01)		(0.04)		(0.03)		(0.02)
Member		0.04*		0.003		0.0005		−0.004		0.06**		−0.005
		(0.02)		(0.02)		(0.02)		(0.03)		(0.03)		(0.02)
Observations	52,535	47,789	52,498	47,770	62,562	43,808	20,703	20,259	20,109	19,686	21,831	21,376
R^2	0.0000	0.01	0.0000	0.001	0.004	0.01	0.001	0.02	0.0001	0.01	0.01	0.01

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6: SHP Switzerland and LISS Netherlands: weighted fixed effects models

	Dependent variable:											
	trust in government		statisfaction with democracy		life satisfaction		Trust_in_government		Satisfaction_with_democracy		Life_satisfaction	
	(M25)	(M26)	(M27)	(M28)	(M29)	(M30)	(M31)	(M32)	(M33)	(M34)	(M35)	(M36)
Unemployed	−0.07	−0.05	−0.04	−0.07	−0.44***	−0.48***	−0.29***	−0.13	−0.04	0.06	−0.42***	−0.39***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.09)	(0.09)	(0.08)	(0.08)	(0.07)	(0.06)
Age		−0.04**		−0.01		−0.06***		−0.14***		−0.07**		−0.03
		(0.01)		(0.01)		(0.01)		(0.03)		(0.02)		(0.02)
Education		−0.01		−0.01		−0.01		0.17		0.11		0.16
		(0.03)		(0.04)		(0.03)		(0.12)		(0.11)		(0.12)
Member		−0.15		−0.13		0.03		0.04		0.16		0.10
		(0.09)		(0.10)		(0.08)		(0.11)		(0.10)		(0.09)

Note: *p<0.05; **p<0.01; ***p<0.001
SEs in parentheses.

References

Bauer, Paul C. 2018. *Unemployment, Trust in Government,and Satisfaction with Democracy: An Empirical Investigation. Socius: Sociological Research for a Dynamic World.* https://journals.sagepub.com/doi/pdf/10.1177/2378023117750533.