

VI CONVOCATORIA A PROYECTOS DE INVESTIGACIÓN

FORMULARIO PROYECTO DE INVESTIGACIÓN



1. TIPO DE PROYECTO AL QUE APLICA

SELECCIONE UNA DE LAS OPCIONES (MARQUE CON UNA X):

PROYECTO TIPO A: ____

PROYECTO TIPO B: X

2. DATOS GENERALES

TÍTULO DEL PROYECTO: The Effect of Tax Receipts on Tax Collection

FACULTAD/ESCUELA: FACEA

CARRERA: Economics

DIRECTOR DEL PROYECTO: Roberto Mosquera

DURACIÓN DEL PROYECTO (MESES): 18

PERMISOS (MAE, CEISH U OTROS): CEISH

PRESUPUESTO TOTAL DEL PROYECTO: \$4,300.00

PRESUPUESTO FINANCIADO POR UDLA: \$4,300.00

PRESUPUESTO FINANCIADO CON FONDOS EXTERNOS: \$0

LÍNEA DE INVESTIGACIÓN UDLA: 4. Sociedad, Comunidad y Cultura (Society, Community and Culture)

ÁREA Y SUBÁREA DE CONOCIMIENTO DE ACUERDO A UNESCO: Área 03 Ciencias sociales, periodismo, información y derecho (Social sciences, journalism, information, and law);

Subárea: 031 Ciencias Sociales y Ciencias del Comportamiento (Social sciences and behavioral sciences); Subárea Especifica: 0311 Economía (Economics)

3. RESUMEN DEL PROYECTO

In political markets, the efficient provision of public goods and programs requires aligning the preferences of voters with the trade-offs faced by politicians to be elected. In several countries around the world, political polarization threatens this alignment by making it more challenging to pass socially beneficial policy measures. Polarization affects many areas, including tax collections. A family might believe that the government is wasting "their" tax dollars when, in reality, they could just be overreacting to paying taxes to a government with a different

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political orientation than that of their own. As a consequence of polarization, this misperception might encourage some individuals to avoid paying the full amount of their taxes.

Providing information on spending levels and how taxes are used to finance them can decrease political polarization, which in turn can affect tax collection. Taxation is typically a complex issue in the sense that people may not be aware of how much they contribute to specific expense categories. Increasing this awareness might impact tax collections. However, there is no causal evidence of the effect of supplying information about government expenses on tax collections. Providing accurate information can be an essential and cost-effective measure to reduce tax avoidance induced by political polarization.

One way to provide citizens with accurate information regarding governmental expenditures is to send them “tax receipts.” These documents provide an objective approximation of how and where an individual's tax payments go. A tax receipt also provides transparency from the government to the people. The impact of providing this information to someone has yet to be answered. However, the benefits of providing it could be substantial.

This research intends to fill this gap using a field experiment. This intervention first intends to supply tax receipts randomly to a sample of the Ecuadorian population, and then use this variation in information about government expenses to estimate the effect of tax receipts on tax collections.

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4. ANTECEDENTES E IMPORTANCIA DEL PROYECTO

4.1. PROBLEMÁTICA (PROBLEM)

In political markets, the efficient provision of public goods and policies requires the alignment of voter's preferences with the trade-offs politicians face to access office. In several countries around the world, political polarization threatens this alignment by making it more challenging to pass socially beneficial policy measures. A growing body of literature shows the many ways Polarization impacts a society. For example, healthy civic engagement (voting, paying taxes, discussion) can be replaced by more negative and extreme measures (tax avoidance, riots, name-calling, blackmailing). A significant way in which individuals connect with the government is through taxation. Every year, each family sits down and writes a check to the government. However, it may not be apparent to the average family how that money is being used. A family might believe that the government is wasting "their" tax dollars when, in reality, they could just be overreacting to paying taxes to a government with a different political orientation than that of their own. As a consequence of polarization, this misperception might encourage some individuals to avoid paying the full amount of their taxes. In turn, increased tax avoidance decreases the resources available to the government, limiting its capacity to carry out public programs.

4.2. ESTADO DEL ARTE (LITERATURE REVIEW)

Our research strain generally falls in line with a growing body of work that looks at how individuals respond to various information provisions. Kuziemko et. al. (2015) test the impact of providing information about inequality on support for policies that address inequality. Providing this information increases an individual's perception that inequality is a problem but find a small change on support for policies that address inequality. Like this study, we look at how individuals respond to the provision of government expenditure information.

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Furthermore, we also contribute to a literature that more specifically looks at how people update prior beliefs according to the information given. Roth et. al. (2017) test the effect of informing people about the debt-to-GDP ratio on a variety of outcomes. They find that most people underestimate this ratio, and upon learning the true distribution reduce support for government spending. Similar in spirit to this, Cruces et. al. (2013) elicit an initial belief about whether an individual's subjective income distribution is biased relative to the objective distribution. Upon correcting this bias, they find that people who initially overstated their rank tend to favor redistributive measures while those who understated their rank support redistributive measures less. West et. al. (2017) study how providing information about education spending affects support for further education spending. They find that people tend to underestimate spending levels and that revealing the true amount causes people to support further spending less. Our study is similar to this field by looking at how people respond to an update in their priors. We do so in the context of political polarization and how this impacts other dimensions of behavior, namely government support, compromise, and tax avoidance.

While most research has documented the pronounced growth of polarization in the United States over the last decade (Pew Research Center), there is preliminary work showing the impact that this has on individual behavior. McNamara and Mosquera (2019) show that an increase or decrease in polarization affects many facets of behavior, including the belief that the government represents them, views about government support, views about government efficiency, as well as views about tax avoidance. These results are primarily survey responses. We build on this research by further testing behavioral tax avoidance responses upon updating initial beliefs about government expenditures. Tax avoidance and compliance is an important component of a well-functioning democracy. Characterizing and explaining the patterns on tax noncompliance are of significant importance. The identification of the sources of this behavior better help understand how to reduce it. McCaffery and Baron (2006) report that individuals are vulnerable to many biases and heuristics in public finance systems which can lead to people making quick decisions while using only the most salient of information and neglecting logically relevant information. Our research touches on this framework by correcting prior biases and making salient to individuals relevant and accurate information from which they can make decisions on.

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4.3. PERTINENCIA DE LA INVESTIGACIÓN (RELEVANCE OF THE PROJECT)

Political polarization is a potential determinant of tax avoidance. In a world of instant (mis)information, sound bites, and headlines, the lack of government transparency allows individuals to form biases and opinions against others that may not be factually true, pushing them towards extreme positions. Taxation is typically a complex issue in the sense that people may not be aware of how much they contribute to specific expense categories. Increasing this awareness might impact tax collections. As mentioned above, previous research has shown that supplying information can shift support for new government expenditures (Lergetporer et al., 2016) and that supplying real expenditure information can decrease political polarization affecting support for tax avoidance (McNamara and Mosquera, 2019). However, there is no causal evidence of the effect of supplying information about government expenses on tax collections. Providing accurate information can be an essential and cost-effective measure to reduce tax avoidance induced by political polarization.

One way to provide citizens with accurate information regarding governmental expenditures is to send them “tax receipts.” These documents provide an objective approximation of how and where an individual's tax payments go. A tax receipt also provides transparency from the government to the people. Governmental transparency has been shown to have a significant effect on trust and accountability between a government and the constituency. Several countries in the world already provide tax receipts to their citizens, but there is no evidence of the effect that this piece of information has on tax avoidance. The impact of providing this information to someone has yet to be answered. However, the benefits of providing it could be substantial.

This research intends to fill this gap using a field experiment. This intervention first intends to supply tax receipts randomly to a sample of the Ecuadorian population, and then use this variation in information about government expenses to estimate the effect of tax receipts on tax avoidance. Ecuador presents two favorable conditions to run this intervention. First, the Ecuadorian IRS publicly reports tax payments for every Ecuadorian on its webpage. Second, 58.4% of the population is self-employed. In Ecuador, self-employed individuals are required to

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self-report their revenue to the IRS, with few opportunities for validation. Self-employment increases the opportunities available to a person in avoiding part of her taxes.

4.3.1. COBERTURA DE EJECUCIÓN DEL PROYECTO (SELECCIONE ÚNICAMENTE UN TIPO DE COBERTURA)

Coloque una "X" en el cuadro de la derecha según corresponda.

	Internacional	
	Nacional	
X	Provincial	Pichincha and Guayas
	Local	

4.4. DESARROLLO DEL PROYECTO

4.4.1. OBJETIVO GENERAL (MAIN OBJECTIVE)

Quantify the causal effect of increasing transparency by providing information on government expenses on tax collections.

4.4.2. OBJETIVOS ESPECÍFICOS (SPECIFIC OBJECTIVES)

NO.

0.1 Measure political polarization of the Ecuadorian population in terms of the difference between expenditure preferences and expenditure expectations and the difference between expenditure preferences and reality.

0.2 Estimate the causal effect of providing information on tax collections.

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4.5. METODOLOGÍA (METHODOLOGY – EXPERIMENTAL DESIGN)

Recruitment: We plan to work in cooperation with a bank or a financial services company in Ecuador. These companies have databases that include contact information, demographic data, and employment information (which identifies who is self-employed). It is important to note that people on these datasets have already provided consent for their information to be used for general purposes, according to standard bank contracts. From this dataset, we will select a random sample of 20,000 self-employed individuals who have access to a cellphone.

Treatment: In the last week of June 2020, we will send this sample a text/Whatsapp message asking them to complete a short survey. The message will include a link to an online survey. The survey includes demographic questions on gender, age, political orientation, and political preferences. This questionnaire includes whether an individual feels as though the government represents their preferences as well as an individual's support for the government, an individual's willingness to compromise and trust others, and their views on government efficiency, fraud, and waste. Following this, we follow the procedure of McNamara and Mosquera (2019), and participants are sequentially asked two things for two different types of government spending. First, for a given \$100, how much they would prefer to have allocated between two expenditure categories. This provides a measure of an individual's preferred spending allocation. Second, how much they believe is being allocated to each. This gives a measure of an individual's expectations, capturing what they think the government is actually distributing between the two categories. The difference between the two measures provides an initial measure of polarization.

After this, we randomly assign individuals into either a treatment or control group. The control group is shown their difference between their preferences and expectations and then finishes the survey. The treatment group is similarly shown their difference between their preferences and expectations but is also shown how the government actually allocates towards each expenditure (this procedure will increase or decrease the level of polarization) and a tax receipt. This receipt is constructed using the income tax that the person paid in for the 2019 fiscal year collected from the IRS webpage. After this, they complete the survey. We will repeat

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the survey, excluding the demographic, political orientation, and political preferences questions in the first week of January 2021.

Estimation: The main outcomes are the change in polarization and the change in the amount paid for income taxes for the 2020 fiscal year compared to the 2019 fiscal year. Random assignment implies that we can compare individuals who are treated with a reduction in polarization to individuals in the control group who would have experienced a similar reduction in polarization had they been treated. Furthermore, we can also compare individuals treated with an increase in polarization to individuals in the control group who would have experienced a similar increase in polarization had they been treated. For these outcomes, we estimate the following equation for both the more and less polarized groups:

$$y_i = \beta_0 + \beta_1 Treated_i + \varepsilon_i(1)$$

where $Treated_i$ indicates if individual i is randomly assigned to the information intervention. β_1 in this equation is our coefficient of interest. As a robustness check and to increase precision, we will add individual covariates, including age, gender, income, education, and political identity. Given that treatment is randomly assigned at the individual level with no clustering in sampling nor treatment assignment, we use heteroskedastic robust standard errors. We estimate equation 1 for the full sample and explore heterogeneity across gender, age, and political affiliation.

In addition to testing differences in means, we test whether polarization affects the distribution of outcomes. We non-parametrically test for equality of the distributions, as well as first and second-order stochastic dominance using the methods of Abadie (202)

We anticipate that we will not have attrition rates that differ statistically between Treatment and Control. Hence, for all outcome variables, we drop participants who do not complete the survey. In the case that there is a difference in attrition, we will use a version of the procedure introduced by Behaghel et al. (2015). We use all observations in the group (either Treatment or Control) with the lower response rate. We then exclude all participants in the other group that started the outcome questionnaire after time t^* , where t^* is set to equalize the response rates. Equalizing attrition, in this way, delivers unbiased estimates under the monotonicity assumption described in Behaghel et al. (2015).

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4.6. PLANIFICACIÓN DE ACTIVIDADES

OBJETIVO ESPECÍFICO	ACTIVIDADES POR OBJETIVO	INICIO	FIN
0.1	A.1.1 Contact bank/financial services company and secure access to the dataset	M0	M0+2
	A.1.2 Collect 2019 tax data from IRS webpage	M0+2	M0+4
	A.1.3 Run first survey	M0+5	M0+5
	A.1.4 Process data from the first survey and estimate the effect on polarization	M0+6	M0+9
0.2	A.2.1 Run second survey	M0+10	M0+11
	A.2.2 Process data form second survey	M0+12	M0+12
	A.2.3 Collect 2020 tax data from IRS website	M0+13	M0+16
	A.2.4 Estimate effects on tax payments, write paper	M0+17	M0+18

4.6.1. RESULTADOS Y MEDIOS DE VERIFICACIÓN POR OBJETIVO ESPECÍFICO

OBJETIVO ESPECÍFICO	RESULTADOS ESPERADOS	MEDIO DE VERIFICACIÓN O EVIDENCIAS	ESTUDIANTES PREVISTOS
0.1	Estimates of the effect of the information treatment on polarization	A dataset with 2019 taxes plus data collected from the first survey	Two (Economics)

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		Estimation graphs and tables of the effect of the information treatments on polarization	
0.2	Estimates of the effect of the information treatment on tax payments	<p>A dataset with 2019 and 2020 taxes plus data collected from the first survey and second surveys</p> <p>Estimation graphs and tables of the effect of the information treatments on tax payments</p> <p>Working paper ready for submission</p>	Two (Economics)

4.6.2. RIESGOS Y MEDIDA DE RESPUESTA POR OBJETIVO ESPECÍFICO

OBJETIVO ESPECÍFICO	RIESGO	NIVEL	MEDIDA DE RESPUESTA
0.1	The bank/ financial services company is not willing to share its data	Low	The risk is low because one of the authors already has a working relationship with two potential companies for other projects. To minimize this risk, we will contact other

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			companies that have access to the required data including phone companies
0.2	Attrition: few people click on the survey links and complete the survey	Medium	To counter this risk, we plan to contact 20000 people. Assuming that the response rate is 5%, this will give an effective sample of 1000 people. Also, we plan to incentivize participation offering participants the chance to win gift cards of \$50, \$100 and \$500

5. PLAN DE PUBLICACIONES (PUBLICATION PLAN)

NOMBRE TENTATIVO DE LA PUBLICACIÓN/PATENTE	NOMBRE TENTATIVO DE REVISTA / EDITORIAL	NOMBRE DE LA BASE DE INDEXACIÓN DE LA REVISTA	SJR/IMPACT FACTOR Y CUARTIL DE LA REVISTA	MES DE ENVÍO
The Effect of Tax Receipts on Tax Collections	American Economic Journal: Applied Economics	SCOPUS	11.559 Q1	Agosto 2021
	Journal of Public Economics	SCOPUS	3.691 Q1	
	Experimental Economics	SCOPUS	2.979 Q1	

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6. PERSONAL DEL PROYECTO

6.1.1. DIRECTOR DEL PROYECTO (UDLA Tiempo Completo)

NOMBRES Y APELLIDOS: **Roberto Mosquera**

DEDICACIÓN MÁXIMA SEMANAL (HORAS): 20

6.1.2. DIRECTOR SUBROGANTE DEL PROYECTO (UDLA Tiempo Completo)

NOMBRES Y APELLIDOS: N/A

DEDICACIÓN MÁXIMA SEMANAL (HORAS): N/A

6.1.3. INVESTIGADORES ASOCIADOS Y AUXILIARES (UDLA Tiempo Completo)

NOMBRES Y APELLIDOS	FECHA INICIO (M0+MESES)	FECHA FIN (M0+MESES)	DEDICACIÓN EN HORAS/ SEMANA
N/A			

6.1.4. INVESTIGADORES EXTERNOS A LA UDLA

NOMBRES Y APELLIDOS	INSTITUCIÓN / PAÍS	ACTIVIDADES A SU CARGO EN EL PROYECTO	CORREO ELECTRÓNICO
Trent McNamara	Texas A&M University / Estados Unidos	Data analysis, estimation, writing paper	Trent_mcnamara@tamu.edu

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7. PRESUPUESTO Y PLAN DE TRABAJO

7.1. JUSTIFICACIÓN DE GASTOS

This Project has two major expenses. First, it is necessary to incentivize survey response. There is evidence that incentivized surveys have higher response rates and that the possibility of winning a large prize is especially effective (Sarraf and Cole, 2014; Kang, 2016). Given that the success of this project relies on having a sufficiently large response rate to the two surveys we will distribute via Whatsapp, we require \$3,000 to be distributed in two gift cards of \$500, 12 \$100 gift cards, and 16 \$50 gift cards. These gift cards will be awarded by a lottery among participants who complete each survey.

The second expense is travel support to present the paper at conferences once its ready. This is part of the publication process in economics.

8. VINCULACIÓN CON LA COLECTIVIDAD

This Project has no components of bonding with the community.

9. REFERENCIAS

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