Pre-Analysis Plan: The psychology of political risk

September 29, 2015

1 Introduction

This study uses a lab-in-the-field experiment to assess how fear and anger influence the propensity of citizens to take risky political actions in a repressive environment. I experimentally induce fear using directed recall of emotional experiences. I predict that fear depresses political action and increases the perceived probabilities of punishment. Some respondents will be encouraged to experience emotions that are relevant to a political context, while others will experience apolitical emotions. Furthermore, I will test for the effects of fear of repression on pessimism and risk-taking in an unrelated economic sphere.

This project aims to provide a micro-empirical test of the potential psychological effects of political repression. The threat of political violence is often analyzed as an informational shock to the perceived probability of punishment. However, a large body of research on perceptions of risks suggest that affect has a large effect on how risks are perceived. This study applies this literature to understanding the effects of political violence, particularly violence intended to suppress opposition in an electoral autocracy.

This PAP follows up on an earlier round of this experiment (preregistered with EGAP on May 8, 2015). In the first round, the experimental design involved two different treatments – anger and fear – and one control group for a total sample of 500. I used images of expressive faces in addition to the reflection task to induce emotions, and measured assessments of political risks and self-reported propensity to take political actions as outcomes. As will be discussed below, in that experiment I found that fear significantly increased perceptions of the risk of repression, and decreased propensity to take action (although this second result was not statistically significant). Anger had similar effects. The current design builds on that first study and the results will ultimately be combined into two separate papers on the effects of fear and then anger on political and economic risks and outcomes.

2 Theoretical Implications

Opposition supporters in repressive political systems must make decisions about whether or not to express their preferences – through voting, public expression, or other actions – despite the potential that they might face negative consequences. Opposition supporters must therefore assess the probability and severity with which they may be punished for taking various actions. These probabilities are typically assessed on the basis of little information, most of which is not credible or falsifiable. For instance, citizens may assess the likelihood of repression on the basis of past episodes of violence that are experienced first-hand or, more often, based on rumors. However, rational citizens should expect that coercive actors would lie to make violence seem more likely. There is considerable uncertainty around whether and how past violence occurs, making the probability of repression extremely difficult to estimate.

One factor that may influence how citizens perceive the risk of violence is their affective or emotional state. This should be particularly true given the uncertainty around signals of the risk of repression. A large body of research using a diversity of methods suggests that affect, particularly anger and fear, influences perceptions of risks. Indeed, although both anger and fear are negative emotions, evidence from brain imaging suggests that these emotions are associated with very different basic "approach" or "avoidance" response systems (Carver, 2004; Carver and Harmon-Jones, 2009). A number of early studies tested the extent to which individuals are likely to systematically over- or under-estimate the probability of certain risks and found that events that evoke a sense of "dread" are particularly likely to be overestimated (Fischhoff et al., 1978; Slovic, 1987). Others have induced specific emotions and asked participants to estimate a variety of risks including everyday risks like catching a cold to terrorist attacks and natural disasters (Johnson and Tversky, 1983; Lerner and Keltner, 2001; Lerner et al., 2003).

In addition to these findings that emotions influence assessments of political risks like terrorist attacks, there is also some evidence from the American context that emotions motivate participation in politics. A number of recent combined experimental and observational analyses find that anger has a larger effect on participation in electoral politics in the US than enthusiasm or fear (Valentino et al., 2011; Weber, 2013; Groenendyk and Banks, 2014). Earlier studies using less precise inductions of negative emotions or purely correlational evidence find that anxiety also has a mobilizing effect on American voters (Marcus et al., 2000; Brader, 2005, 2006).

It is also important to note that the effect of emotions on information seeking appears to be quite different from more active participation in politics. Several studies have found that information-seeking is increased by anxiety and actually decreased by anger (Valentino et al., 2008). Brader (2005) finds weak but positive evidence that campaign ads that cue fear increase vigilance and information-seeking, although these effects are smaller than the effect of enthusiasm ads and do not

translate into action. Political action in this study refers not to action to seek more information on issues or parties but rather action in support of an opposition party that an individual already has a preference for. In this study I focus on actions that require voters to take a stand for or against a party like voting, making public statements, or attending events rather than information-seeking.

This study builds on this political psychology literature from the American context to argue that fear decreases participation in politics in the context of a repressive regime. I hypothesize that these effects should be even larger in a repressive political system where voters must worry not just that their vote is unlikely to matter, but also face high potential personal costs to participate in opposition politics. I hypothesize that this relationship between affect and action is driven by perceptions of personal risks, and that these risk attitudes and perceptions may spill over into decisions other than politics.

3 Research Design

This project uses a lab-in-the-field experiment to test for the effect of fear on how citizens make decisions about political behavior in a high-risk environment. The experiment will be carried out in the context of a 30-minute household survey. Enumerators will approach potential subjects, obtain consent, ask a series of questions measuring demographic characteristics, induce emotions, and then measure assessments of political risk and willingness to engage in a series of political behaviors. At the end of the substantive measures we will measure the emotional states of the respondents as a manipulation check.[1]

I induce these emotions using standard techniques from psychology. Specifically, I use a reflection task in which respondents are instructed by the enumerator to describe the last time they felt a specific emotion. The techniques that I use to stimulate emotions are most similar to Lerner et al. (2003), who stimulate anger and fear in the context of the 9/11 terrorist attacks, and Banks and Valentino (2012), who stimulate general anger and disgust and investigate their impacts on political attitudes. Exercises based on recall is one of the most effective ways to stimulate specific emotions, particularly compared to alternative treatments like viewing videos (Harmon-Jones et al., 2007).

The subject will be asked to describe a time in which they felt the assigned emotion. They will be asked the following questions:

This type of emotion-induction technique has been used in a wide range of contexts, although I have adapted it to the Zimbabwean context, including in low- or middle-income countries such as Kenya and Colombia. This method of emotion elicitation has been used in internet-based surveys where respondents are asked to describe the situations in which they felt the specified emotion

[1] Emotions are also measured at the end of the questionnaire in light of research showing that asking people to report their emotions causes those emotions to dissipate (Kassam and Mendes, 2013).

in writing, lab studies where respondents either speak or write their answer, and in face-to-face interviews. Describing the situation to an enumerator is advantageous in this situation for several reasons. First, it enables us to include low-literacy subjects in our sample. Second, the enumerator can use a series of several permitted probes to direct the respondent in an interactive way to reflect on precisely the ideas or feelings that trigger the specific emotion, enabling a more potent treatment.

After the emotion induction treatment, the subject will be asked a series of questions to measure outcomes. Assessment of political risks will be measured with a series of twelve questions on various political risks that are relevant in the Zimbabwean context. To hold constant the riskiness of the behavior that the respondent typically engages in, we ask about the probability that the respondent will face different punishments if he engages in a specific action, namely going to an opposition rally or meeting. Respondents will be asked about the probability that they will face threats, assault, destruction of property, sexual abuse, abduction and torture, and murder. They will be asked to report the risk of each if they go to a rally or meeting now (during a non-election period) and around the time of the next election. Probability will be assessed on a five-point scale that is easy to understand in the local language including not at all likely, a little bit likely, somewhat likely, very likely, and sure. The responses to these questions will be used to make an index of perceived risk of repression.

Willingness to engage in politics will be measured in a similar way. Respondents will report the likelihood that they would wear an opposition party t-shirt, share a funny joke about the president, go to an opposition rally, refuse to go to a pungwe [a mandatory rally for the ruling party] when asked by a community leader, tell a war veteran [a type of individual who is known for perpetrating political violence] that she supports the opposition, or testify in court against a perpetrator of violence. They will report the likelihood that they would take each action now (during a non-election period) and around the next election. The answers to these questions will be used to make an index of willingness to take political action.

Beliefs about others' willingness to engage in politics will be measured in a similar way. Respondents will report the number of other opposition supporters in their community that they would wear an opposition party t-shirt, share a funny joke about the president, go to an opposition rally, refuse to go to a pungwe [a mandatory rally for the ruling party] when asked by a community leader, tell a war veteran [a type of individual who is known for perpetrating political violence] that she supports the opposition, or testify in court against a perpetrator of violence. They will be asked for the number of other opposition supporters that would take each action now (during a non-election period) and around the next election. The answers to these questions will be used to make an index of beliefs about others' willingness to take political action.

There are limitations to using self-reported propensity to take political actions instead of a behavioral measure of propensity to act. There is a risk that respondents' estimates of propensity to

act may be not be strongly related to their actual behavior. This would be especially problematic if there were differential bias in reporting across treatment groups. However, there is little reason to believe that the emotions treatment should differentially affect respondents' vulnerability to social desirability bias or other common factors that drive inaccuracies in self-reported political behavior. However, one concern is that if participants are not deeply considering how to respond to these questions, the hypotheticals may under-estimate the effect of fear on propensity to act.

To measure real political action, I will offer subjects the chance to take one of two wristbands as a thank you gift for participating in the study. Respondents will be able to choose between taking a plain orange wristband and a wristband with a pro-democracy and anti-violence slogan on it. This type of pro-democracy paraphernalia does not put respondents at imminent or undue danger, but wearing it could send a signal of opposition to the ruling party that could make someone nervous. The enumerator will stress to respondents that they are not obligated to take the wristband, but if they want to take it they should commit to wearing it. Taking the pro-democracy wristband indicates that subjects want to publicly show their support for democracy.

Additionally, I will measure financial risk attitudes and pessimism about economic outcomes. Financial risk attitudes will be measured using a series of four 50-50 lotteries in which subjects choose from six types of bets with varying levels of risk. Across the four lotteries, there will be two standard conditions, one condition with ambiguity, and one with losses. From these I will construct several measures: risk aversion, ambiguity aversion, and loss aversion. This measure is designed to be effective even with low-literacy and numeracy populations and has been used in related studies in Colombia and Kenya.

Financial pessimism will be measured using a series of scenarios similar to the political risk perceptions. These questions will ask about the likelihood that investment in a small business will pay off, that someone in the family would be laid off, that an economic earner in the family would have to stop working, that a major asset would be broken or lost, or that savings would be lost or stolen in the next six months and two years. These questions will be used to test whether the fear caused by political repression has spillover effects into economic beliefs and behavior.

As a manipulation check, we will also measure the six primary emotions (anger, fear, happiness, surprise, disgust, and sadness) on a four-point scale: not at all, a little bit, somewhat, and a lot. Enumerators will also code how afraid or relaxed they think the subject is at the end of the emotion induction. Last, 10% of the emotion inductions will be recorded, transcribed and translated as a second manipulation check to test whether respondents are actually talking about things that scare them.

Randomization into the treatment categories will be blocked on community, enumerator, and gender. Each enumerator will use a survey dictionary to select the appropriate treatment based on the gender of the respondent and the number of the interview.

The order of each of the six outcome modules (1. political pessimism, 2. self-reported political action, 3. beliefs about others' political action, 4. risk aversion, 5. economic pessimism, and 6. real political action) will be fixed. Order of questions within modules 1, 2, 3, and 5 will be randomly assigned.

One concern that will be addressed through the pilot is that the effect of the emotion induction might dissipate before the subject completes the last outcome module. To counter this, I am inducing emotions at two points during the study – once before the measures of political outcomes, and a second time before the economic outcomes.

4 Predictions

This study will test the following predictions:

1. Subjects who receive the fear treatments will be more pessimistic in their assessments of political risks.
2. Subjects who receive the fear treatments will believe that fewer of their fellow opposition supporters will take pro-opposition actions.
3. Subjects who receive the fear treatments will be less willing to take pro-opposition political actions.
4. Subjects who receive the fear treatments will be more pessimistic in their assessments of economic risks.
5. Subjects who receive the fear treatments will be more risk averse in financial decisions.
6. The effect of the political and general fear treatments will be equal.

The main results will come from the pooled sample of people assigned to the political and apolitical emotion conditions. I will also test for differences across the political and general treatment conditions but do not expect that these effects will differ. If they are significantly different, then I will run the analysis separately for political and general emotions and discuss the results separately.

5 Data

This experiment will be implemented with a sample of 700 opposition supporters in urban and rural Zimbabwe. The data is being collected by researchers connected with the Zimbabwean NGO Voice for Democracy, which carries out research on human rights abuses and organizes communities to prevent and prosecute political violence. These researchers will use Voice for Democracy's network of members to identify respondents in nine communities affected by violence around Harare and in rural areas of Mashonaland East. This sample is not representative and includes a mix of people who

actively resisted and succumbed to intimidation, as well as people who were directly and indirectly affected by intimidation.

Socioeconomic status will be measured using the index of asset ownership from the last Zimbabwean Demographic and Health Survey. It covers quality of housing, land ownership, major assets like generators and cars, small assets like mobile phones and radios, and livestock. I will use the standardized first principal component in the analysis.

Self-efficacy is measured with an ten-point questionnaire developed by Jerusalem et al. (1992); Schwarzer et al. (1997). The measure will be a standardized version of the first principal component.

Past exposure to political violence is measured with a scale based on the Harvard Trauma Questionnaire. The types of traumas asked about are taken from past applications of the Harvard Trauma Questionnaire in Zimbabwe. For each item, respondents will be asked whether they experienced the trauma and whether they heard about it happening in their community.

Last, we will measure past participation in opposition politics with a series of eight questions about whether the respondent has taken various pro-opposition actions many times, sometimes, once or twice, or never since the year 2000.

In order to avoid priming subjects on opposition politics and political violence, these last two batteries of questions will most likely come after the treatment. During piloting ($N = 200$) we will test whether putting these questions before or after the treatments influences a. the strength of the treatment or b. how respondents answer them, and this will be used to determine where in the main study they should go. Based on the first round of this study, putting the political violence questions immediately before the emotion induction does increase the likelihood that subjects will reflect on something related to political violence that makes them angry or afraid.

6 Analysis

Results will be analyzed using both difference-in-means tests that take blocking into account and regression analysis. The multivariate specification that will be used is:

$$Y = \alpha + \beta Z + \gamma X + \varepsilon$$

where Y is either the probability of punishment index or the propensity to act index, and Z is a dummy for assignment to treatment in the emotion induction. α is a community fixed effect. X is a vector of individual covariates including gender, an assets index, education, and age. We will also test for whether the apolitical or political context of the emotion matters using the interaction of the two treatments for both outcomes:

$$Y = \alpha + \beta Z1 + \lambda Z2 + \tau Z1 \times Z2 + \gamma X + \varepsilon$$

where Y is again probability of punishment or propensity to act for subject i, $Z1$ is still assignment to the emotion induction treatment, and $Z2$ is a dummy for whether you were assigned to the political version of the treatment.

7 Anticipated Results

7.1 Manipulation Check

First I will present the results of a manipulation check asking subjects to report their emotions at the end of the questions measuring the outcomes of interest. I expect that the fear treatment will increase fear. Other emotions should be more or less unaffected by the treatments.

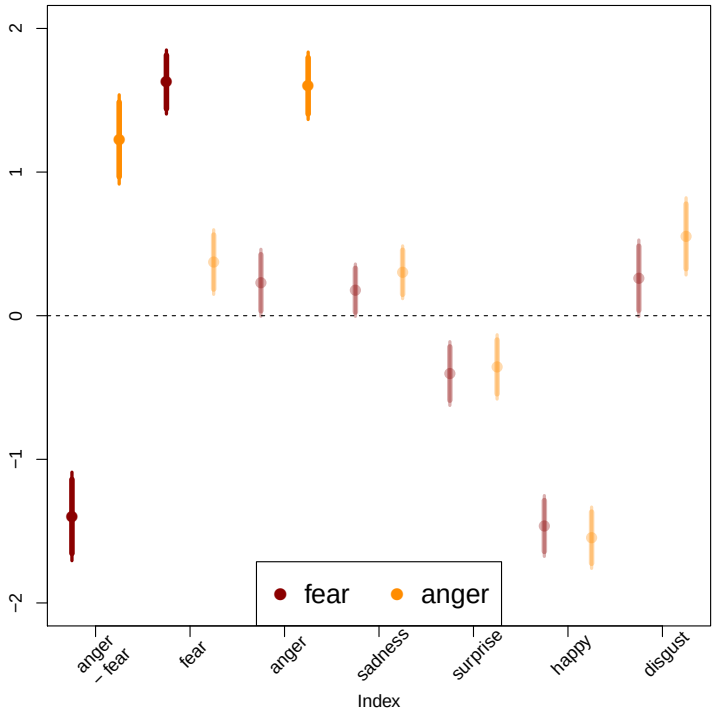
In fact, it wouldn't be surprising if happiness was also negatively affected by the fear and anger treatments. It's also likely that subjects in the fear treatment will feel some anger, and those in the anger treatment some fear. People often feel multiple positive or negative emotions together. To the extent that the treatments induce both negative emotions of interest, I may underestimate the coefficients of interest.

I will also carry out the manipulation check separately for the political and apolitical conditions. I expect that the manipulation check will be less clean for the political condition given that people have strong feelings about political violence like anger that could also be introduced in this treatment.

In previous studies, similar emotion induction techniques have produced large effects on self-reported emotional states. In pretesting, Lerner and Keltner (2001) find that general reflection-based emotion inductions increased fear over anger by 2.58 points on a 10-point scale in the fear condition, while the anger condition increased anger over fear by 2.21 points on the same scales. Lerner et al. (2003) use a nine-point scale to measure emotion, and find that a political anger treatment resulted in a 0.66-unit increase in anger over fear, and a 0.50-unit increase in fear over anger in the political fear treatment. On my scale, these effects would translate into increases of about 0.33 units and 0.25 units, which are approximately the parameters that I've used in my simulations. The 2001 study effect sizes would translate into increases of approximately 0.88-1.03 units on my 4-point scale, far larger than what I simulate here.

In the first study that I ran with a similar subject group, I found very large effects on the same four-point emotions scales. Specifically, a similar emotion induction technique resulted in a control group median of "not at all" afraid versus a treatment group mean of "a lot" afraid, or a 1.6 point difference in means on the scale. Figure 1 shows the manipulation checks that I ran from this first study.

Figure 1: The impact of the treatments on six major emotions



There are several reasons why we might see such large differences in the emotions induced in the two experiments. First, the emotions inductions in the 2001 study took place in a lab setting with undergraduate students, while the 2003 study used an online panel. It's likely that the respondents in the online survey paid less attention to the task in the 2003 study. Second, it's possible that emotions are harder to influence around political events. While everyone can reflect on something that they are angry or fearful about, most people have strong feelings about important political events. In the 2003 study, Lerner et al. (2003) induced anger and fear around the 9/11 terrorist attacks, where respondents presumably had strong baseline emotions about the attacks that may have been hard to sway with such a reflection task.

7.2 Main Effects

What effect sizes are reasonable to expect on pessimism and risk taking? There are a number of previous similar studies that can provide insight into the relationship between fear and pessimism. Unfortunately, most existing studies simply compare across negative emotions rather than comparing negative emotions to a neutral control group. Nevertheless, Lerner and Keltner (2001) find using a similar reflection technique to induce emotions that anger and fear led to an average increase in optimism (increases in the perception of the probabilities of good outcomes and decreases in

perceptions of the probabilities of bad outcomes) of 2.22 on a nine-point scale of the likelihood of good or bad events, which translates into an average difference between anger and fear of 1.2 on my five-point scale. In an online survey with a much less potent emotion induction, Lerner et al. (2003) measure risk on a probability scale from 0 to 100%, and find differences in perceived probabilities between anger and fear of between 3.9 and 4.7 percentage points. This study also found that the effect of fear on pessimism extended to unrelated personal outcomes like the probability of catching the flu, with similar magnitudes of the effects.

In a previous study with a similar population in Zimbabwe, I found that fear had a significant positive effect on assessment of risks, making them ($p < 0.05$). Specifically, I found that the fear treatment increased perceived risks of repression by 0.25-0.27 points on a five-point likelihood scale over the same twelve measures that I will use in this experiment. This could mean, for instance, that respondents increased their perception of the likelihood of three repressive acts by one point on the scale. The results from that study are shown in Table 2 in Columns 1-3.

Table 2 also shows that fear is associated with decreases in the propensity to act, but these effects are not significant. This may be because respondents did not seriously consider the hypothetical actions, or because the increases in risk perceptions did not lead them to change their propensity to act. To test whether this might be a measurement issue, I will take a several steps. First, because it is possible that the effect of the primes had simply worn off during the questions about political risks, I will randomly assign the order of the risk assessments and political action measures. Second, because it is possible that subjects don't take the hypothetical questions seriously, I will add a real, though low-risk, political action. Although my hypotheses predict that fear should decrease political action, I have no previous estimates of this relationship to give me strong priors about what the effect size might be.

8 Conclusion

If I see the results that I expect, I would conclude that the fear caused by political violence – independent of the informational signal that political violence sends about the probability of punishment for various political actions – has a demobilizing effect. Specifically, fear makes citizens increase their estimation of the probability that they personally will be punished for expressing dissent. These results would suggest that political violence not only sends an informational signal to citizens that they will be punished for dissent but also influences them through an emotional channel. This phenomenon may help explain why coercive actors tend to use "extra-lethal violence" that involves mutilation or particularly counter-normative acts like rape.

Table 1: Reflection Treatments

Assignment		
Control	General	Political
$N = 350$	$N = 175$	$N = 175$
1. What are the three to five activities that you like to do to relax? Please tell me two to three sentences about each thing that you like. (Examples of things you might talk about include: playing with your children, resting, taking tea, talking to friends.)	1. What are the three to five things that make you most afraid? Please tell me in two-three sentences about each thing that makes you afraid. (Examples of things you might talk about include: being alone on a dark street, being in a traffic accident, dangerous animals like snakes or lions, etc.)	1. What are the three to five things that make you most afraid about politics and elections? Please tell me in two-three sentences about each thing that makes you afraid. (Examples of things you might talk about include: getting beaten up, being abducted, losing your home, etc.)
2. Now we'd like you to describe in more detail the way you typically like to relax. Begin by giving a description of your favorite relaxing activities. Examples of things you might describe include going to church, spending time with certain friends, watching football, eating a meal with your family, etc.	2. Now we'd like you to describe in more detail the one situation that makes you most afraid. This could be something you are presently experiencing or something from the past. Please tell me as if you're trying to make me afraid as well. What is it like to be in this situation? Why is it so scary?	2. Now we'd like you to describe in more detail the one situation around elections and politics that makes you most afraid around politics and elections. This could be something you are presently experiencing or something from the past. Please tell me as if you're trying to make me afraid as well. What is it like to be in this situation? Why is it so scary?
3. Now we'd like you to describe in more detail another way you typically like to relax. Begin by giving a description of your favorite relaxing activities.	3. Now we'd like you to describe in more detail another situation that makes you most afraid around politics and elections. This could be something you are presently experiencing or something from the past. Please tell me as if you're trying to make me afraid as well. What is it like to be in this situation? Why is it so scary?	3. Now we'd like you to describe in more detail another situation around elections and politics that makes you most afraid. This could be something you are presently experiencing or something from the past. Please tell me as if you're trying to make me afraid as well. What is it like to be in this situation? Why is it so scary?

Table 2: Effect of fear and anger stimuli on perceived probability of punishment and propensity to act

	Dependent variable:					
	Prob(Pun)			Prob(Act)		
	(1)	(2)	(3)	(4)	(5)	(6)
Fear	0.27^{**}	0.25^{**}	0.27^{*}	-0.04	-0.05	-0.07
	(0.11)	(0.11)	(0.15)	(0.12)	(0.12)	(0.16)
Anger	0.16	0.15	0.15	-0.06	-0.07	-0.09
	(0.11)	(0.11)	(0.15)	(0.12)	(0.12)	(0.16)
Political (Z)			0.03			0.03
			(0.15)			(0.17)
Fear × Political (Z)			-0.04			0.05
			(0.22)			(0.24)
Anger × Political (Z)			-0.02			0.03
			(0.22)			(0.24)
Female	-0.08	-0.08	-0.08	-0.49^{***}	-0.47^{***}	-0.47^{***}
	(0.09)	(0.09)	(0.09)	(0.10)	(0.10)	(0.10)
Age		0.03	0.03		0.04^{*}	0.04^{*}
		(0.02)	(0.02)		(0.02)	(0.02)
Age^2		-0.0003	-0.0003		-0.0005^{*}	-0.0005^{*}
		(0.0003)	(0.0003)		(0.0003)	(0.0003)
Education		0.08^{**}	0.08^{**}		-0.13^{***}	-0.13^{***}
		(0.04)	(0.04)		(0.04)	(0.04)
Assets		0.05	0.05		-0.04	-0.04
		(0.05)	(0.05)		(0.05)	(0.05)
Intercept	2.10^{***}	1.13^{**}	1.12^{**}	3.28^{***}	3.03^{***}	3.03^{***}
	(0.15)	(0.49)	(0.49)	(0.17)	(0.52)	(0.53)
Community FE	✓	✓	✓	✓	✓	✓
Observations	473	473	473	473	473	473
R^2	0.25	0.26	0.26	0.17	0.19	0.19
Specification	OLS	OLS	OLS	OLS	OLS	OLS

Standard errors in parentheses.
*p<0.1; **p<0.05; ***p<0.01

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