

Economic Development, Mobility and Political Discontent: An Experimental Test of Tocqueville's Thesis in Pakistan *

Andrew Healy[†]

Katrina Kosec[‡]

Cecilia Hyunjung Mo[§]

June 13, 2016

Abstract

We consider the thesis of Alexis de Tocqueville (1856) that economic development and increased mobility may generate political discontent not present in more stagnant economies. For many citizens, as they become aware of the potential for improvement, aspirations may increase faster than living standards. Expanded opportunity may then paradoxically result in dissatisfaction with government rather than greater confidence. We develop a formal model to capture Tocqueville's (1856) verbal theory and test its predictions using a 2012 – 2013 face-to-face survey experiment conducted in Pakistan. The experiment utilizes established treatments to manipulate either a participant's perceptions of her own economic well-being, her perceptions of society-wide mobility, or both. As predicted by the theory, political discontent often rises the most when declining personal well-being coincides with high mobility. The results thus identify the conditions under which expanded economic opportunity can lead to political unrest.

2-2016 – Elections and Electoral Rules

*We thank the dedicated team at Innovative Development Strategies (IDS), who in collaboration with the International Food Policy Research Institute (IFPRI), carried out the extensive data collection activities for our Pakistan Rural Household Panel Survey (RHPS). We also thank Alemayehu Seyoum Taffesse and Tanguy Bernard for providing us with the Aspirations module from the IFPRI Ethiopia Rural Household Survey, which helped inform the Aspirations module in the Pakistan RHPS. We gratefully acknowledge insightful comments and guidance from Adam Meiowitz, Emily Nacol, Danielle Resnick, Alan Wiseman, and Elizabeth Zechmeister, as well as the discussants and participants at the 2016 annual meeting of the Behavioral Models of Politics at University of Pittsburgh, Midwest Political Science Association, and the Southern Political Science Association. All remaining errors are our own.

[†] Andrew Healy: Professor of Economics, Loyola Marymount University, One LMU Drive, Room 4229, Los Angeles, CA 90045 (ahealy@lmu.edu).

[‡] Katrina Kosec: Research Fellow, International Food Policy Research Institute, Development Strategy and Governance Division, 2033 K Street, NW, Washington, D.C. 20006 (k.kosec@cgiar.org).

[§] Cecilia Hyunjung Mo: Assistant Professor of Political Science, Vanderbilt University, PMB 0505, 230 Appleton Place, Nashville, TN 37203 (cecilia.h.mo@vanderbilt.edu); W. Glenn Campbell and Rita Ricardo-Campbell National Fellow and Robert Eckles Swain National Fellow, Hoover Institution, Stanford University, 434 Galvez Mall, Stanford, CA 94305.

Economic Development, Mobility and Political Discontent: An Experimental Test of Tocqueville's Thesis in Pakistan*

Andrew Healy[†]

Katrina Kosec[‡]

Cecilia Hyunjung Mo[§]

June 13, 2016

Abstract

We consider the thesis of Alexis de Tocqueville (1856) that economic development and increased mobility may generate political discontent not present in more stagnant economies. For many citizens, as they become aware of the potential for improvement, aspirations may increase faster than living standards. Expanded opportunity may then paradoxically result in dissatisfaction with government rather than greater confidence. We develop a formal model to capture Tocqueville's (1856) verbal theory and test its predictions using a 2012–2013 face-to-face survey experiment conducted in Pakistan. The experiment utilizes established treatments to manipulate either a participant's perceptions of her own economic well-being, her perceptions of society-wide mobility, or both. As predicted by the theory, political discontent often rises the most when declining personal well-being coincides with high mobility. The results thus identify the conditions under which expanded economic opportunity can lead to political unrest.

*We thank the dedicated team at Innovative Development Strategies (IDS), who in collaboration with the International Food Policy Research Institute (IFPRI), carried out the extensive data collection activities for our Pakistan Rural Household Panel Survey (RHPS). We also thank Alemayehu Seyoum Taffesse and Tanguy Bernard for providing us with the Aspirations module from the IFPRI Ethiopia Rural Household Survey, which helped inform the Aspirations module in the Pakistan RHPS. We gratefully acknowledge insightful comments and guidance from Adam Meiowitz, Emily Nacol, Danielle Resnick, Alan Wiseman, and Elizabeth Zechmeister, as well as the discussants and participants at the 2016 annual meeting of the Behavioral Models of Politics at University of Pittsburgh, Midwest Political Science Association, and the Southern Political Science Association. All remaining errors are our own.

[†]Andrew Healy: Professor of Economics, Loyola Marymount University, One LMU Drive, Room 4229, Los Angeles, CA 90045 (ahealy@lmu.edu).

[‡]Katrina Kosec: Research Fellow, International Food Policy Research Institute, Development Strategy and Governance Division, 2033 K Street, NW, Washington, D.C. 20006 (k.kosec@cgiar.org).

[§]Cecilia Hyunjung Mo: Assistant Professor of Political Science, Vanderbilt University, PMB 0505, 230 Appleton Place, Nashville, TN 37203 (cecilia.h.mo@vanderbilt.edu); W. Glenn Campbell and Rita Ricardo-Campbell National Fellow and Robert Eckles Swain National Fellow, Hoover Institution, Stanford University, 434 Galvez Mall, Stanford, CA 94305.

Introduction

Intuitively, economic development should increase confidence in government. Development reduces poverty, and governments should be rewarded for doing so. Classic economic voting theory, which articulates that citizens reward the incumbent for good times and punish the incumbent for bad, has received substantial empirical support (Lewis-Beck and Nadeau 2011). But economic development has at times coincided with exactly the opposite outcome: dissatisfaction with government. Modern day China is an example; the number of protest incidents in China increased only modestly from 1997 to 1999, when economic growth was relatively slow. As China’s economy began booming again in 2001, the number and scale of protests rose sharply (Keidel 2005). The French Revolution, which started in the most prosperous parts of France, provides another case. As Tocqueville observes, “the parts of France that were to become the principal center of that revolution were precisely those where progress was most evident” (Tocqueville 1856, 156). To reconcile this paradox, he raises the possibility that the arrival of some limited opportunity may throw into sharp relief the gap between what citizens feel they should have and what they actually have—a concept that has been termed the “aspirations gap” (Ray 2006). Here, we formally capture and experimentally test Tocqueville’s verbal theory that economic development can coincide with political unrest.

This phenomenon has been dubbed the “Tocqueville Effect”; it conveys “the idea that subjective discontent (and hence the likelihood of revolution or rebellion) and objective grounds for discontent can be inversely related to each other” (Goldhammer and Elster 2011, 162-163). The theory posits that radical change often arises not during economic hardship, but rather when conditions increase expectations. For those individuals who develop aspirations that are not met, their confidence in government may actually decrease when mobility increases. Other researchers have taken an interest in exploring the conundrum that economic mobility does not necessarily translate to greater confidence in government. More recently, Acemoglu, Egorov, and Sonin (2015) present a formal model capturing additional conditions under which economic mobility and political stability may conflict. They describe how high mobility can decrease stability if the median voter expects to move up the income distribution and thus prefers to decrease the voice given to poorer social groups.¹

¹When the mean and median policy preferences are close, they argue that “not only is democracy stable (meaning that the median voter would not wish to undermine democracy), but it also becomes more stable as social mobility

Political theorists have often referred to American democracy to illustrate how economic opportunity can increase the strength of political institutions. Tocqueville (1835) famously argued in *Democracy in America* that mobility increased political stability, in contrast to his later work. Lipset (1960), Moore (1966), and Blau and Duncan (1967), among others, make similar points. For example, Blau and Duncan (1967) conclude that “the stability of American democracy is undoubtedly related to the superior chances of upward mobility in this country” (439). In the American case, however, mobility has tended to increase political stability because economic conditions have kept pace with increased expectations; this contrasts with many other cases, like those of France on the eve of the revolution. These counterexamples point to the fact that economic opportunity does not necessarily increase political stability.

Here, we develop a formal model with two testable propositions capturing the logic of the “Tocqueville Effect.” We then test these propositions using an experiment which we carried out in Pakistan. The experiment utilizes standard treatments to manipulate either a participant’s perceptions of her own economic well-being or her perceptions of possibilities for upward mobility within Pakistan, employing a 2 (poverty prime, no poverty prime) \times 2 (mobility prime, no mobility prime) research design. This design exogenously manipulates the perceived gap between where participants feel they are presently and where they aspire to be in terms of economic and social status—i.e. their aspirations gap. We then assess how these primes individually and jointly affect confidence in government. We find substantial empirical support for the model’s predictions.

While the implications of our model apply more broadly, Pakistan is an interesting context for several reasons. First, it is a middle-income country with the world’s sixth-largest population (Central Intelligence Agency 2015), helping lend Pakistan a great degree of geopolitical significance. Second, Pakistan is a young democracy, which has made genuine democratic progress over the last few years.² Third, Pakistan has a fragile security situation. A number of militant organizations operate in Pakistan, threatening further domestic progress and international stability (Lamb 2008; Ghani and Lockhart 2009; Blair, Neumann, and Olson 2014). Understanding what drives support for government is critical since opposition to government may lead to support for increases. Conversely, when the mean and median are far apart, greater social mobility reduces the stability of democracy” (30).

²In 2013, the country saw its first successful transition from one democratically elected government to another, and additionally passed a landmark right-to-information law that provides citizens with access to public documents. Source: <http://tribune.com.pk/story/564305/right-to-information-act-2013/>.

extremist groups (Patrick 2010; Felbab-Brown 2010). Lessons from Pakistan are thus likely to be useful for understanding peace and stability in many fragile and failed state contexts. Finally, Pakistan is a relatively mobile country; the OECD (2012) found that Pakistan has the same level of inter-generational mobility found in Switzerland, and higher mobility than many of the 22 other countries studied, including the United States, the United Kingdom, Italy, and China.³ Pakistan is thus a setting in which confidence in government has particularly important implications, and where it would be interesting to observe whether the “Tocqueville Effect” operates.

This paper is organized as follows. We first describe in greater detail the logic of Tocqueville’s theory that economic development and mobility may generate dissatisfaction with government if expectations outpace actual standards of living. We formalize Tocqueville’s verbal theory and generate predictions for when confidence in government and mobility should be inversely related. We then test these ideas in an experimental setting, finding that if one feels relatively poor and experiences a sense of economic mobility that makes advancement to a better economic condition seem possible, support for government erodes, and this leads to political discontent. We conclude with a discussion of the implications of these findings, and pathways for future research.

Theory of Mobility, Poverty, and Aspirations

To formalize Tocqueville’s verbal theory, we consider two distinct and related concepts: *relative poverty* and *mobility*. The former describes one’s current economic position while the latter describes the potential for change in one’s conditions. As predicted by classic economic voting theory, citizens should prefer governments that improve their living conditions, all else equal (Lewis-Beck and Nadeau 2011). But Tocqueville (1856) devotes considerable attention to the implications of mobility and economic development for political discontent. A sense of mobility and economic opportunity may paradoxically increase political discontent if expectations increase more rapidly than do improvements in one’s actual or perceived current situation. If generally true, this would suggest that the relationship between economic conditions (as well as changes in those conditions) and confidence in the political system is more highly nuanced than most theory and empirical evidence would suggest.

³Inter-generational mobility refers to how predictive a father’s income level is of the income level of his children.

The “tunnel” effect of Hirschman and Rothschild (1973) helps clarify Tocqueville’s idea. They pose a scenario in which a person is stuck in a traffic jam in a multi-lane tunnel and, suddenly, the lane next to that person starts to move while she remains stuck. This person will at first feel happy, as this is a signal that their lane will soon begin moving as well. As time passes, however, seeing that the next lane is continuing to move while she remains stationary leads to immense frustration. Tocqueville’s thesis posits that for some individuals, the arrival of a sense of mobility (e.g., opportunity for economic advancement) may lead them to develop aspirations that are not met, thus actually decreasing confidence in government.

Ray (2006) provides additional insight and clarity on the logic of Tocqueville’s thesis in the following way, “Tocqueville’s argument is clear: iniquities and oppressions that are cloaked with implacable inevitability can be borne. Once this sense of inevitable oppression is removed by increased mobility and increased economic development (at least in aggregate terms), the aspirations window must widen. This, in turn, will increase the aspirations gap—the difference between the standard of living that’s aspired for and the standard of living that one currently has—unless all actual standards of living can keep pace with changing aspirations. The result may very well be increased conflict, rather than less” (5-6). Following Ray’s interpretation of Tocqueville, an increase in aspirations due to a greater sense of mobility coupled with a perception that one’s status quo is lower would increase the aspirations gap and thus unambiguously generate dissatisfaction with the government. However, if expectations decline or do not change, and perceived or actual economic positions improve, then the gap should shrink. The predictions of classic economic voting theory should then hold—with citizens rewarding government for economic improvements (Lewis-Beck 1988).

In addition, increases in poverty and mobility may have heterogeneous impacts across individuals according to their initial aspirations. As Tocqueville (1856) wrote of the improving living standards before the French Revolution, “Troubles of this kind appeared intolerable to those who, thirty years before, might have borne them without complaint. Hence it happened that capitalists, merchants, manufacturers, and other businessmen... were now more impatient and more resolutely bent on reform than any other section of the people” (217). Having greater exposure to potential increases in their own living standards, the middle class actually experienced the largest increase in discontent, as opposed to the poor who had little reason to aspire for more. It is thus important not

only to consider the impacts of perceived relative poverty and mobility on support for government, but to also understand how they impact high aspirers in particular.

Formal Model

We formalize Tocqueville’s ideas in an intertemporal model capturing confidence in government institutions as a function of economic conditions (i.e. poverty or perceived poverty) and opportunity (i.e. mobility), allowing perceived opportunity to vary across individuals. This exercise allows us to map out the logic of the verbal theory.

Define an individual i ’s confidence in government, C_i , to be a function of the aspirations gap between her current income, y_i and where she would like to be—her goal g_i . By assumption, g_i is always greater than or equal to y_i , so the individual never aspires to less than they already have. To simplify, we consider a simple quadratic functional form where confidence decreases as the aspirations gap ($g_i - y_i$, or the difference between the goal and current income) increases. The main results still hold if we use a more general functional form.

$$C_i = -(g_i - y_i)^2 \tag{1}$$

We suppose that income is a function of a baseline income level, y_0 . Changes from that baseline are influenced by the level of upward mobility in society, m (where $m \geq 0$), and an idiosyncratic income shock of mean zero, u_i . Greater mobility captures both a higher average change in income and a greater possibility for change in one’s place in the income distribution. As in our experimental treatment, mobility thus represents more than just higher variance in that distribution, but also a greater overall level of opportunity for advancement. In a society with zero mobility, the income distribution is assumed to be static.

$$y = y_0 + m(1 + u_i) \tag{2}$$

Goals are determined by an individual’s baseline level of goals, g_0 , changes in an individual’s own income relative to the baseline ($y - y_0$), and changes in mean income relative to baseline across all other individuals in the economy ($\bar{y} - \bar{y}_0$). We assume that the number of individuals is large so that the idiosyncratic income shocks sum to zero across the economy.

$$g = g_0 + \alpha(y - y_0) + \beta(\bar{y} - \bar{y}_0) \quad (3)$$

We assume that goals are sticky, so that when personal or society-wide income increase, goals adjust by α and β , respectively. However, this adjustment is not as quick as the change in income. Conversely, if income falls, goals adjust downwards, but not as far as the fall in income. This is summarized by Assumption 1.

Assumption 1 : Goals adjust when income changes, but not fully.

$$0 < \alpha < 1$$

$$0 < \beta < 1$$

Assumption 1 leads to our first proposition:

Proposition 1 : Under Assumption 1, an increase in an individual's idiosyncratic income shock increases a citizen's confidence in government.

Proof. Using the definition of y in equation (2) to substitute into equation (3), we have:

$$g = g_0 + \alpha(m(1 + u_i)) + \beta(m(1 + \bar{u}_i))$$

Since the idiosyncratic income shock averages to zero across the population:

$$g = g_0 + \alpha(m(1 + u_i)) + \beta m$$

Substituting this into equation (1) and taking the derivative of confidence with respect to the individual's idiosyncratic income shock, we find:

$$\frac{\partial C}{\partial u_i} = -2(g - y) \left(\frac{\partial g}{\partial u_i} - \frac{\partial y}{\partial u_i} \right) = -2(g - y)(\alpha m - m) = 2m(g - y)(1 - \alpha)$$

Under Assumption 1, $\alpha < 1$. Since g_i is always greater than or equal to y_i , we have:

$$\frac{\partial C}{\partial u_i} > 0$$

□

The intuition behind Proposition 1 is that when an individual experiences a positive shock to income, her confidence in government increases. Conversely, if she experiences a negative shock, confidence decreases. We can similarly find how confidence changes in response to a change in mobility, m , in the economy. In Proposition 2, we conclude that the impact of mobility on confidence depends on the idiosyncratic income shock that an individual experiences.

Proposition 2 : Confidence is increasing in mobility if and only if $u_i > \frac{\beta}{1-\alpha} - 1$.

Proof.

$$\begin{aligned} \frac{\partial C}{\partial m} &= -2(g-y) \left(\frac{\partial g}{\partial m} - \frac{\partial y}{\partial m} \right) = -2(g-y)(\alpha(1+u_i) + \beta - (1+u_i)) \\ &= -2(g-y)((\alpha-1)u_i + \beta + (\alpha-1)) = 2(g-y)((1-\alpha)u_i - \beta + (1-\alpha)) \end{aligned}$$

This expression shows that confidence is increasing in mobility if $u_i > \frac{\beta}{1-\alpha} - 1$ and decreasing in mobility if $u_i < \frac{\beta}{1-\alpha} - 1$. \square

Intuitively, mobility will increase confidence for citizens experiencing sufficiently large positive idiosyncratic income shocks, but not for others. Citizens who have sufficiently large idiosyncratic income shocks will advance closer to their goals and thus respond positively to mobility. But for other citizens with less luck individually, greater mobility pushes their goal higher without a sufficient increase in income to compensate. Confidence for the relatively less fortunate can thus decrease as mobility rises.

Proposition 3 shows that the combination of positive idiosyncratic income shocks and higher mobility may or may not have a positive impact on confidence, but that the interaction between individual shocks and mobility is strictly increasing in the initial aspirations gap that a citizen experiences. For people who initially have a large distance between where they are and where they would like to be, the combination of positive individual-level opportunity and society-wide mobility is particularly powerful.

Proposition 3 : Confidence is increasing in the interaction between mobility, the idiosyncratic income shock, and the initial aspirations gap, $g_0 - y_0$.

Proof.

$$\begin{aligned}
\frac{\partial}{\partial u_i} \left(\frac{\partial C}{\partial m} \right) &= 2 \left(\frac{\partial g}{\partial u_i} - \frac{\partial y}{\partial u_i} \right) ((1 - \alpha)u_i - \beta + (1 - \alpha)) + 2(g - y)(1 - \alpha) \\
&= 2(\alpha m - m)((1 - \alpha)u_i - \beta + (1 - \alpha)) + 2(g - y)(1 - \alpha) \\
&= 2(\alpha - 1)m((1 - \alpha)u_i - \beta + (1 - \alpha)) + 2(1 - \alpha)(g - y) \\
&= 2(1 - \alpha)((g - y) - (1 - \alpha)mu_i + \beta m - (1 - \alpha)m)
\end{aligned}$$

Using the definition of g and y , we have:

$$g - y = g_0 - y_0 - (1 - \alpha)m(1 + u_i) + \beta m$$

So the above derivative becomes:

$$\begin{aligned}
\frac{\partial}{\partial u_i} \left(\frac{\partial C}{\partial m} \right) &= 2(1 - \alpha)(g_0 - y_0 - (1 - \alpha)m(1 + u_i) + \beta m - (1 - \alpha)mu_i + \beta m - (1 - \alpha)m) \\
&= 2(1 - \alpha)(g_0 - y_0 - 2(1 - \alpha)m - 2(1 - \alpha)mu_i + 2\beta m)
\end{aligned}$$

The above expression is strictly increasing in the initial aspirations gap, $g_0 - y_0$. □

The sign of the above expression depends on the values of mobility and the idiosyncratic income shock. But that expression shows that the interaction between mobility and income becomes more positive when the initial aspirations gap, $g_0 - y_0$ increases.⁴ The simple logic is that someone who has a large initial aspirations gap gets a particularly large income boost when the idiosyncratic income shock and economy-wide shock (mobility) work together to increase income. Therefore, the gain in confidence is particularly large for such individuals. Conversely, for individuals with large initial aspirations gaps, when income falls short in a high mobility environment, this is particularly detrimental to confidence in government. In Tocqueville's theory, Proposition 3 captures the idea that confidence in government may be particularly fragile for people with high aspirations and living in a society of increased opportunity, who nonetheless receive relatively low incomes.

In the following sections, we test the predictions of the testable propositions—namely, Propositions 1 and 3 given that the Proposition 2 has a conditional prediction—using data from a survey experiment conducted in Pakistan.

⁴The above expression is decreasing in u , so that there are diminishing marginal returns to increasing the idiosyncratic shock in a high-mobility environment.

Data

Our results come from an original survey conducted in rural Pakistan in March – April 2012 (Round 1) and April – May 2013 (Round 2). In Round 1, we collected all demographic variables and carried out a large module on individuals’ aspirations, attitudes, and cognitive processes. In Round 2, the data collection included the experimental treatment, as well as a governance module.⁵ In other words, aside for our outcome measures, all measures were collected prior to the experiment. The one year time lag between the measurement of our moderating variables, demographic characteristics, and our outcome variables is advantageous as we can rule out the possibility that our experimental treatments impacted the moderating and demographic variables.

The survey covered 2,090 households in 76 villages in Punjab, Sindh, and Khyber-Pakhtunkhwa (KPK) provinces.⁶ The head of each household and his/her spouse completed household surveys.⁷ We included a module on aspirations in Round 1 of the survey, following the module carried out by Bernard, Taffesse, and Dercon (2008). The governance module carried out in Round 2 begins with an experiment, described in the next section, before asking respondents a series of questions about their political attitudes. A detailed description of each measure is provided in the measurement section below. To ensure that variation in results is not due to using different samples, we restrict our estimation sample to the 1,540 individuals with complete responses on all questions.

Research Design

We employ a 2 (poverty prime, no poverty prime) \times 2 (mobility prime, no mobility prime) research design to exogenously manipulate individual perceptions of their own poverty level and possibilities for upward mobility in Pakistan.⁸ We then observe how these primes individually and

⁵In Round 2, we did not re-collect information on demographics like gender, age, and education level. We also did not re-administer the Round 1 aspirations module.

⁶The RHPS provides village-, household-, and individual-level data on a range of economic, political, and social topics. The RHPS sample was selected using a multi-stage, stratified sampling technique. 19 districts were selected: 12 from Punjab, five from Sindh, and two from KPK. The sampling frame excluded Balochistan, the Federally Administered Tribal Areas, and 13 of KPK’s 24 districts due to safety concerns. Districts in each province were selected using a probability proportionate to size approach. In each district, four mauzas (villages) were randomly selected, and then 28 households were randomly chosen from each village. Urban villages and those with populations greater than 25,000 were excluded from the sampling frame.

⁷In cases where the head or spouse was not available, a second visit was made to the household. If the individual was still not available, another knowledgeable household member of the same gender was selected instead.

⁸As shown in the balance tests displayed in Table A.1 in Online Appendix A, random assignment was successful.

jointly affect confidence in government, and how their impacts vary according to an individual’s initial aspirations gap. In this section, we first explain the experimental treatments. We then outline our outcome measures and how we measure the aspirations gap given that our theory predicts that the effects of poverty and mobility are impacted by one’s initial aspirations gap. Finally, we describe the empirical strategy to test our model’s propositions.

The Poverty Prime Treatment

Study participants were either induced to feel relatively poor, which we refer to as receiving a poverty prime, or they were assigned to a control condition designed to frame their income neutrally. The half assigned to the relatively poor condition were primed to feel that their income was in the bottom part of the income distribution. The half assigned to the control condition were made to feel that their income was more typical (e.g., the median income level). Specifically, we asked respondents the following question: “Income is the amount of cash income you earn from all agricultural and non-agricultural activities, and money from Benazir Income Support Programme (BISP) or other programs. How much income did your family earn last month?” We then randomly assigned them to one of the following two sets of response options with differing income bracket reference points:

Control (No Poverty Prime)	Treatment (Relatively Poor Group) (Poverty Prime)
0-2,000 Rs.	0-12,500 Rs.
2,001-4,000 Rs.	12,501-25,000 Rs.
4,001-6,000 Rs.	25,001-45,000 Rs.
6,001-10,000 Rs.	45,001-60,000 Rs.
More than 10,000 Rs.	More than 60,000 Rs.

This research design is a variation of the prime used in Haisley, Mostafa, and Loewenstein (2008) to study the decision to participate in lotteries. Mo (2012; 2013) introduced the design to political science as a way to experimentally manipulate feelings of relative poverty in her study of the effects of relative deprivation on vulnerability, and Fair, Littman, Malhotra, and Shapiro (2015) replicated her design in Pakistan. The logic of this prime is based on previous research showing that response

options to ordinal or interval questions can send cues—in those experiments, unintended cues—to respondents about what responses are normal (e.g. Courneya, Jones, Rhodes, and Blanchard 2003; Menon, Raghurir, and Schwarz 1997; Rockwood, Sangster, and Dillman 1997; Shwarz, Hipper, Deutsch, and Strack 1985). Research has shown that respondents frequently assume that the ranges offered by a question were purposely selected so that the middle response is the modal or most customary response. The midpoint response changes the reference point on which respondents focus, and their sense of economic well-being is then assessed in relation to this reference point. Research in decision making, economics, and psychology has repeatedly found that people do not simply evaluate the absolute value of income, performance, achievements, status, etc. (Crosby 1976; Festinger 1954; Suls and Wheeler 2000; Walker and Smith 2001). Rather, these evaluations are heavily influenced by comparisons with others, and reference points can significantly impact how people feel and make decisions (Heath, Larrick, and Wu 1999; Kahneman and Tversky 1979).

As such, the different income brackets offered in the treatment (primed to feel relatively poor) versus control group provide respondents with a different set of expectations on what the typical person should have. This acts as a subtle prime to induce those in the treatment group to feel relatively deprived and that their economic status quo is particularly low, and induces those in the control group to feel that their economic status is typical, as they answer questions. The middle income bracket in the control group is only 4,001–6,000 Rs., whereas the middle income bracket in the treatment group is much higher, at 25,001–45,000 Rs. In other words, respondents in the treatment group are more likely, compared to the control group, to place themselves in the lowest income bracket. This is indeed what we see; 73.7 percent of study participants primed to feel poor assigned themselves to the bottom income bracket, compared to only 34.1 percent of participants in the control group ($p < 0.001$). Actual income measured pre-treatment—whether measured in terms of monthly household income or monthly household expenditures—is almost identical regardless of treatment assignment ($p = 0.15$ and $p = 0.83$, respectively; see the last column of rows (2) and (3) in Table A.1 in Online Appendix A). In the results section, we conduct a manipulation check and verify that the prime had its intended effect.

The Mobility Prime Treatment

In a multitude of laboratory and survey contexts, a range of subtle interventions have been shown to activate hypothesized attitude changes and behaviors. We draw on extant research on primes (e.g., Berger, Meredith, and Wheeler 2008; DeMarree, Wheeler, and Petty 2005; Lodge and Taber 2005) to assess the impact of perceived mobility on confidence in government. To exogenously change how study participants felt about whether Pakistan offers high levels of economic mobility, respondents were randomly assigned to receive the following information about economic mobility in Pakistan, drawn from Corak (2012): “A 2012 study of 22 countries conducted by the Organization for Economic Cooperation and Development has found that Pakistan offers higher mobility – the ability of an individual or family to improve their economic and social status – than the United States, the United Kingdom, Italy, China, and 5 other countries.”⁹ In other words, half of our respondents received this mobility priming information to increase their perception that it is possible to increase their economic and social status in Pakistan, and the other half received no such information before being asked questions about their political attitudes.

In the results section, we implement a manipulation check and show that this prime was successful. The measure we use to conduct this test is described in the measurement section below.

Empirical Analyses

To assess whether being made to feel relatively poor (Proposition 1) and more mobile (Proposition 2) increased or decreased confidence in government, we estimate the following OLS regression model:

$$G_i = \alpha_i + \beta_1 M_i + \beta_2 P_i + \beta_3 MP_i + \gamma_i \mathbf{X}_i + \epsilon_i \quad (4)$$

where M_i is a dummy variable coded as “1” if respondent i is assigned to the mobility condition; P_i is a dummy variable coded as “1” if respondent i is assigned to the relatively poor condition; MP_i is a dummy variable coded as “1” if a respondent received both the relatively poverty prime and the mobility prime; G_i is an individual’s confidence in government; and \mathbf{X}_i is a vector of individual and household demographic characteristics, described in detail below. β_1 and β_2 , are the parameters of interest for Propositions 1 and 2, respectively. According to Proposition 1, β_1

⁹This is a true statement, and no deception was employed in the study.

should be a negative and statistically significant predictor. According to Proposition 2, the sign and statistical significance of β_2 is ambiguous, as the sign depends upon the extent to which an individual’s goals adjust when personal income (α from Assumption 1 in the formal model) and the income of others in the economy (β from Assumption 1 in the our formal model) change. Standard errors are clustered at the household level since many of the factors influencing political attitudes vary at the household level.

In order to test whether simultaneous increases in mobility and poverty have a more adverse effect on confidence in government for citizens with high aspirations (Proposition 3), we include an interaction term between each treatment condition and one’s aspiration level, controlling for one’s status quo endowment to capture the concept of an aspirations gap. In other words, we estimate the following regression model:

$$G_i = \pi_i + \theta_1 M_i + \theta_2 P_i + \theta_3 MP_i + \theta_4 A_i + \theta_5 P_i \times A_i + \theta_6 M_i \times A_i + \theta_7 MP_i \times A_i + \Gamma_i \mathbf{X}_i + e_i \quad (5)$$

where A_i is individual i ’s aspiration level pre-treatment. θ_7 is the parameter of interest for Proposition 3; it should be negative and statistically significant. As \mathbf{X}_i includes status quo measures of the components comprising our aspiration measure (income, asset wealth, education level, and social status), when we assess the effect of A_i we capture the aspirations gap, or the distance between what individuals already have and what they aspire to have. π_i and e_i are the constant term and the error term, respectively. Again, standard errors are clustered at the household level.¹⁰

Measurement

Table 1 provides summary statistics of our measures of government confidence, aspiration level, pre-treatment demographic controls, and measures employed for our manipulation checks. Households are nearly evenly divided between our four study arms: control, poverty prime, mobility prime, and both primes (see rows (2)-(5) of Table 1). About 30 percent of the sample is female, while 70 percent is male, reflecting a higher response rate for men, more willingness to freely articulate opinions and beliefs among men in Pakistan, as well as lower rates of attrition for men between

¹⁰We examine whether all results are sensitive to the inclusion or exclusion of district or village fixed effects.

rounds.¹¹ 92 percent of respondents are married, 44 percent have received no formal education, and the average household has 6.2 members.

Outcome Measure: Confidence in Government

We measure confidence in government using the answers to four questions aimed at eliciting individuals' degree of support for the political system and efforts of government actors. The first question asked, "In your opinion, to what extent do you think that one should support the political system of Pakistan?" Individuals were asked to select either not at all (0), a little (1), somewhat (2), a lot (3), or a great deal (4). We re-scaled this to be a 0–1 variable by dividing the individual's selected answer by 4. A re-scaled score of 0.5 therefore indicates a belief that one should support the political system of Pakistan somewhat. The mean of this variable is 0.37.

The second question asks, "What is your overall level of satisfaction with the government?" The third question asks, "How satisfied are you with the government's efforts to provide your community with access to schools and health facilities?" Finally, the fourth question asks, "How satisfied are you with the government's efforts to provide security for your community?" The response choices to all three of these latter questions are as follows: extremely dissatisfied (0), moderately dissatisfied (1), slightly dissatisfied (2), neither satisfied nor dissatisfied (3), slightly satisfied (4), moderately satisfied (5), and extremely satisfied (6). We also re-scaled each of these 7-point scale questions to be 0–1 variables, in this case by dividing the individual's selected answer by 6. A re-scaled score of 0.5 indicates neither satisfaction nor dissatisfaction with the government. The means of these variables are 0.38, 0.41, and 0.45, respectively (see Table 1).

When one measures the same phenomenon in several different ways, there is a high risk of detecting some significant effects merely due to chance (Benjamini and Hochberg 1995; Benjamini, Krieger, and Yekutieli 2006). This is the problem of multiple hypothesis testing, and it carries the risk of one falsely concluding that there is a statistically significant empirical finding when there is not. We circumvent this problem by combining our four measures of satisfaction with government into a single index, computed by taking an average of the four underlying variables.¹² Moreover,

¹¹Requesting to interview a specific female member of a household can be challenging in the Pakistan context, where males are wary of leaving women alone with enumerators. We partially addressed this problem by employing female enumerators, but still experienced a significantly higher attrition rate between sample rounds for women.

¹²The Cronbach's alpha value for internal consistency is 0.75.

the advantage of an averaged measure is that it nets out measurement error associated with any one of the index components (Ansolabehere, Rodden, and Snyder 2008). Our government confidence index has a mean of 0.40 and a standard deviation of 0.23. If we detect significant changes in this index, we can be relatively confident that they reflect true changes in confidence in government, as opposed to errors in the measurement of a single dimension yielding a spurious correlation. We consider each of the four measures separately as a robustness check.

Aspiration Level

We measure an individual’s pre-treatment aspiration level using an index similar to that used by Bernard and Seyoum Taffesse (2014). The index is constructed using respondents’ answers to questions about their aspirations along four dimensions: income, asset wealth, education, and social status. Specifically, respondents were asked to report the level of personal income, the value of assets, the level of education (re-coded as desired years of education), and the level of social status (on a 10-step ladder of possibilities) they would like to achieve. While there is a potentially infinite number of dimensions on which an individual could aspire, we argue that these four capture a large and important share of aspirations. Question wording can be found in Online Appendix B.

We combined these four aspiration levels into an index using the following methodology. First, we normalized each respondent’s aspiration level on each dimension by subtracting the average level for individuals in the same district (there are 19 districts in our sample), and then dividing this difference by the standard deviation for individuals in the same district.¹³ We examine the individual’s aspirations relative to the district, as an individual’s aspiration levels are affected by a process of social comparison with others in the individual’s social environment or *reference group* (e.g., Festinger 1954; Merton and Rossi 1950; Suls and Wheeler 2000). We then asked each individual to allocate 20 beans across the four dimensions according to their relative importance, and weighted each dimension by the share of beans placed on it. This yields the following index:

$$Aspiration\ Level = \sum_{n=1}^4 \left(\frac{a_n^i - \mu_n^i}{\sigma_n^d} \right) w_n^i \quad (6)$$

¹³The resulting, normalized outcome represents the number of standard deviations from the district average that an individual’s aspired level is located. Respondents with an aspiration level for a particular outcome above their district’s average have a positive value on the normalized outcome, while those with a level below the average have a negative value.

where a_n^i is the aspired outcome of individual i on dimension n (income, asset wealth, education, or social status); and μ_n^d is the average aspired outcome in district d for outcome n . The standard deviation of aspired outcomes in district d for outcome n is σ_n^d . Finally, w_n^i is the weight individual i places on dimension n , and these four weights sum to 1.¹⁴ Poverty and economic opportunities vary widely across districts. To the extent that the district average aspiration level represents what is typically possible to achieve in a district, our measure of aspirations captures the distance between what is generally possible and what an individual aspires to achieve.

Table 1 includes summary statistics for our aspiration level index. The average individual has an aspiration level of 0.10, with a standard deviation of 0.67. The aspiration level takes both negative and positive values given it is a normalized measure, and its mean is close to 0.¹⁵

Demographic Characteristics

We consider several demographic controls in all analysis that consider aspiration levels.¹⁶ We aimed to control for those features of an individual that should have a direct impact on their aspiration level, as measured by our aspiration index. These include their current logged household income, logged household asset wealth, social status (on a 1 through 10 scale), and education level (no formal education, primary education, middle education, high/intermediate education, and post-secondary education).¹⁷ Inclusion of these controls lends our aspiration index measure the interpretation of reflecting an aspirations gap, since it measures aspirations after accounting for status quo endowments.

Given our reliance on randomization of treatment in the context of an experiment, we can identify the causal impacts of our poverty and mobility primes without the need for other controls. Nonetheless, including several controls can increase the precision of our estimates, in case there are small imbalances across treatment arms. Indeed, as shown in the balance tests in Table A.1 in Online Appendix A, we have select cases of imbalance. For example, those that received the mobility prime have slightly higher incomes than do those that did not receive any prime, and

¹⁴Note that the index is a weighted average of four normally distributed variables with mean 0 and standard deviation 1. However, it is not itself distributed normally with mean 0 and standard deviation 1.

¹⁵While the aspiration level is a weighted average of four $N(0,1)$ variables, it is not itself distributed $N(0,1)$.

¹⁶All of these measures were collected at the time of our Round 1 (2012) survey to ensure these measures are 1) all pre-treatment measures; and 2) collected when questions on aspiration levels were asked.

¹⁷Question wording for these questions can be found in Online Appendix B.

those that received both primes also have slightly higher incomes than do those that received no prime. Also, those that received both primes have fathers with slightly more education than do those that did not receive any prime or those that received only the mobility prime. Nevertheless, out of 30 joint tests of imbalance, there are only two cases of imbalance between treatment groups (i.e., where $p < 0.10$), which suggests that random assignment was highly successful.

We control for a measure of the individual’s level of trust in others, and their degree of envy of others, given that they may be correlated with attitudes toward government and our poverty and mobility treatments.¹⁸ We also control for key demographic characteristics that might influence political opinions. These include their father’s education level (in years), mother’s education level (in years), gender,¹⁹ age group (18–25, 25–35, 35–45, 45–55, and over 55), ethnicity,²⁰ and household size. Finally, we estimate specifications with district fixed effects and village fixed effects.

Results

Our main regression results that test the “Tocqueville Effect” appear in Table 2, where the outcome is our government confidence index. Column (1) shows our baseline results.²¹ Those randomly assigned to receive only the poverty prime, which causes individuals to feel relatively poor, report significantly lower satisfaction with government than do those who received no primes; this is consistent with Proposition 1 ($p = 0.04$). Receiving only the poverty prime leads to a 3.4 percentage point reduction in government satisfaction (see column (1) of Table 2); this is a sizable, 8.5 percent decrease relative to the mean value of the government confidence index. This effect size is especially large in light of this being a survey experiment; rather than actually making individuals relatively poorer, our treatment subtly primes them to feel this way. One might expect even larger impacts on confidence in government if we actually and permanently changed individuals’ relative welfare. This suggests that if anything, our estimates are lower bounds on the magnitude of the

¹⁸Trust and envy are both measured as indices computed based on a grouping of questions that were normalized (by subtracting the sample mean and then dividing by the sample standard deviation) and then averaged over the group. In the case of trust, there were 12 questions. In the case of envy, there were 3 questions. A complete list of questions is available in Kosec and Khan (2016).

¹⁹Female is coded as 1.

²⁰We include fixed effects for each ethnic group.

²¹Regression results equivalent to column (1) of Table 2 for each of the confidence measures that make up the index are shown in columns (1), (3), (5), (7), and (9) in Table A.2 in Online Appendix A. We also visualize these results in Figure A.1 in Online Appendix A.

impacts on confidence in government resulting from feeling relatively poor. The magnitude and significance of this result is not sensitive to the inclusion of district or village fixed effects or demographic control variables (columns (2)–(4)), which provides reassurance that the randomized experiment was implemented correctly.²²

Receiving only the mobility prime leads to no substantive change in the government confidence index ($\beta = -0.014$; $p = 0.38$; see column (1) of Table 2), and this effect is further statistically insignificant at conventional levels. This result is consistent with Proposition 2 of our formal model, which shows that mobility has a positive effect on government confidence for some and a negative effect for others. Finally, we see no significant impact on government confidence for those who received both primes ($\beta = 0.007$; $p = 0.70$). The negative impact on confidence in government of being primed to feel relatively poor is, on average, neutralized when individuals are simultaneously primed to feel mobile. Again, the findings in column (1) are robust to the inclusion of district or village fixed effects and demographic controls.

When we interact each of our three treatment arm dummies (receipt of the mobility prime, poverty prime, and both primes) with the individual’s aspiration level, we see evidence consistent with Proposition 3, which captures the main thesis of Tocqueville (1856). Specifically, this thesis predicts that confidence in government among high-aspiring citizens declines when their perceived relative position decreases and perceived mobility increases, since these are the citizens that experience the greatest aspirations gap when they are made to feel both relatively poor and mobile. As shown in column (1) of Table 3 and visualized in Figure 1(d),²³ this is precisely what we find. Among those with relatively high aspiration levels (and hence large aspirations gaps), receiving both primes has a large and significant negative impact on confidence in government—specifically, a 6.6 percentage point reduction in satisfaction for every one-unit increase in aspirations ($p = 0.007$; see column (1) of Table 3). This is a large, 16.4 percent decrease in government confidence relative to the mean of the index. This negative effect is statistically significant for each of the four individual measures that make up the government confidence index as well, as shown in Figure

²²The effect size ranges from 3.2 to 3.6 percentage points depending on the specification, and effects are statistically significant regardless of the specification (p -values range from 0.02 to 0.04).

²³We consider the association between aspiration level and the government confidence index for each of the four conditions separately—(1) receipt of no prime (Figure 1(a)); (2) receipt of only the mobility prime (Figure 1(b)); (3) receipt of only the poverty prime (Figure 1(c)); and (4) receipt of both primes (Figure 1(d)).

2.²⁴ Moreover, these findings are robust to the inclusion of district or village fixed effects and demographic controls. We take this as strong evidence supporting Proposition 3 and Tocqueville’s verbal hypothesis.

As in our results without interactions with the aspirations gap, receiving the mobility prime alone once again has both an economically and statistically insignificant effect on confidence in government—and this effect also does not vary with the aspirations gap (see row (4) of Table 3 and Figure 1(b)). Additionally, receiving the poverty prime alone is once again associated with lower satisfaction with government (see row (2) of Table 3), and this effect does not vary according to the individual’s aspirations gap (see Figure 1(c)).

By examining the coefficients on receiving both primes, and on receiving both primes interacted with the aspirations gap, we see that for the nearly 40 percent of the sample with the highest aspirations gaps,²⁵ receiving both primes has a negative impact on confidence in government.²⁶ This is a sizable and intuitive share of the sample for which Tocqueville’s thesis holds: it is those who, by virtue of having sufficiently high aspirations gaps, are able to have their sense of mobility and perceived relative poverty updated by our experiment. For the other 60 percent of the sample with relatively low aspirations gaps, receiving both the mobility and poverty primes has either no effect or a positive effect on government satisfaction. It may be the case that for individuals with low aspirations after controlling for status quo endowments (i.e. with large aspirations gaps), no amount of priming can alter or impact their perception that they are deprived and immobile.

It is important to consider context when interpreting our results. Our study was carried out in rural Pakistan, where even those with *relatively* high aspirations may have quite low aspirations when compared with those in a non-developing country context, or with those in the urban or more developed sections of a developing country like Pakistan. Thus, that Tocqueville’s thesis holds for the 40 percent of the sample that had the highest aspirations gaps is remarkable; it suggests that in other contexts, we might expect an even larger share of the population to have their confidence

²⁴Regression outputs for each of the four measures are shown in columns (2), (4), (6), (8), and (10) in Table A.2 in Online Appendix A, and the interaction term for these regression analyses are displayed in Figure 2.

²⁵Specifically, an aspiration level of above 0.21 in our specification which controls for the present day level of (i.e. the individual’s status quo for) each of the areas in which we ask individuals about their aspirations.

²⁶When considering column (1) of Table 3, $0.21 \times -0.066 + 0.014 = 0.00014$, where 0.014 is the coefficient on receiving both primes, while -0.066 is the coefficient on receiving both primes interacted with aspirations. The net effect of the two primes on government confidence is negative when the variable measuring the aspirations gap is less than 0.21.

in government reduced by simultaneously being primed to feel relatively poor and mobile.

Analysis of Prime Effectiveness and Manipulation Checks

Our analysis of how priming individuals to feel relatively poor and/or mobile impacts their attitudes toward the government assumes that our experiment had its intended effect. That is, priming individuals to feel relatively poor made them feel relatively poorer than they otherwise would, and priming individuals to feel mobile made them feel more mobile and able to improve on their current position than they otherwise would. Evidence from Mo (2012; 2013) in Nepal, which was then replicated in Pakistan by Fair et al. (2015)—as well as the diagnostic statistics on our poverty prime that we presented in the previous research design section on the poverty prime treatment—suggest that our experimental method of priming individuals to feel poor had the intended effect.

We are able to gain further verification that our treatment had its intended effect by examining whether the poverty prime affected only those who did not feel poor to begin with. People that already felt relatively poor should be somewhat immune to the prime. For this exercise, we can leverage the following question collected prior to the experiment: “[*Show the picture of a ladder*] Please look at this ladder, which has 10 steps. Suppose we say that the top of this ladder represents the best possible life for you and the bottom step represents the worst possible life for you. Where on the ladder do you feel you personally stand at present?” The median and mean response is 5, the mid-point of the scale. We thus divided our sample into two groups: those who chose a number of less than 5 and those who chose 5 or better. These two groups represent (A) those who already feel low on a ladder of subjective well-being, and as such, should not feel the effects of a prime designed to trigger feelings of relative poverty, and (B) those who feel well-off, and as such, have room for their subjective well-being to fall in response to the prime.

We repeat the analyses of our main results in Table 2 and Table 3, which are described in the results section above, for the two groups of interest: Columns (1)–(6) of Table A.3 in Online Appendix A consider group (A), while columns (7)–(12) consider group (B).²⁷ As expected, we see

²⁷Columns (1) and (7), (2) and (8), and (3) and (9) in Table A.3 in Online Appendix A reproduce columns (1), (2), and (4) in Table 2, respectively. Columns (4) and (10), (5) and (11), and (6) and (12) of Table A.3 in Online Appendix A reproduce columns (1), (2), and (4) in Table 3, respectively.

that the negative effect of the poverty prime (test of Proposition 1), as well as the interaction between receipt of both the poverty and mobility prime and one’s aspirations gap (test of Proposition 3) are *only* seen for group (B)—the group with initially high levels of subjective well-being. When we consider the impact of receiving the poverty prime (test of Proposition 1), effect sizes for group (B) range from -4.1 to -4.8 percentage points and are statistically significant. In contrast, effect sizes for the group which had low subjective well-being before the prime (group (A)) range from -0.6 to -1.4 percentage points and are statistically insignificant. The difference between the impact on group (A) and the impact on group (B) is always highly statistically significant ($p < 0.01$). In short, receiving the poverty prime lowers one’s confidence in government, but this is only the case for those who we would actually expect to have their beliefs updated by the prime: those with initially high subjective well-being. When we next consider the interaction between the aspirations gap and the dummy for receiving both the mobility and poverty primes (test of Proposition 3), we find that it is also only statistically significant for group (B). The magnitude of the interaction term for group (A) ranges from -0.001 to 0.004 and is in all cases statistically insignificant, while for group (B) it ranges from -0.094 to -0.062 and is always statistically significant. Again, the difference between these two sets of magnitudes is always highly statistically significant ($p < 0.01$). Proposition 3 and Tocqueville’s verbal hypothesis are supported by the data, and these effects are intuitively driven by those for whom we would expect the primes to have the greatest impact.

We do not know of any existing studies priming individuals to feel mobile. Fortunately, however, we can statistically check that the mobility prime had the intended effect. We are able to do so given that we asked all respondents the following question related to their perceived level of mobility after receiving the mobility and/or poverty prime: “In your opinion, to what extent do people in Pakistan get rewarded for their intelligence and skills?” Again, this variable is measured on a scale from 0 to 1, where 0 indicates not at all, and 0.25, 0.5, 0.75, and 1 respectively indicate a little, somewhat, a lot, and a great deal. The mean of this measure is 0.40, reflecting that individuals tend to believe that mobility is not particularly high in Pakistan. An analysis of this questions allows us to examine whether or not the mobility prime actually caused individuals to report that they feel more mobile.

Table A.4 in Online Appendix A examines the effect of being primed to feel mobile (by having been read our mobility script as part of the experiment) on an outcome variable indicating the

extent to which an individual feels that people in Pakistan are rewarded for their intelligence and skills. As we see in column (1), receiving our mobility prime leads to a 3.6 percentage point increase ($p = 0.01$) in this outcome variable. As this variable’s mean is 0.40, a 0.036 point increase represents a 9 percent increase relative to the mean value. The size of this effect is largely unchanged when we add district fixed effects (column (2)), a battery of pre-treatment control measures (column (5)), and village fixed effects (column (6)). We take this as evidence that our mobility prime had its intended effect. Moreover, we find no differential impacts of our primes according to an individual’s aspiration level (and hence gap), as shown in columns (3) – (6) in Table A.4 in Online Appendix A.²⁸ Similarly, we find no evidence that the effect of the poverty prime on feelings of mobility varies with one’s aspirations gap.²⁹

Conclusion

Using an original experimental dataset collected in Pakistan during 2012–2013, we present strong evidence in favor of a theory articulated by Tocqueville (1856). That theory suggests that discontent with government can increase even when economic development creates opportunities for economic and social mobility. For many citizens, expectations increase and personal circumstances fail to keep up, creating political discontent. We formalize these insights by presenting a theoretical model of the impacts of perceived poverty and economic mobility on confidence in government. Our experimental evidence supports that model, and thus Tocqueville’s theory.

The experiment has the key advantage that it generates perceptions of higher relative poverty and higher mobility which are exogenous to our attitudinal outcomes related to confidence in government. However, it has the disadvantage that we subtly create only the (likely temporary) perception that one is relatively poor. Perceptions of relative poverty may have a different effect than does actually falling into deeper levels of poverty. Further research is needed on how confidence

²⁸Columns (3) and (4) in particular replicate columns (1) and (2) but add a control for an individual’s aspiration level adjusting for present day socio-economic status levels to capture aspirations gaps, as well as its interaction with each of the two primes.

²⁹In other words, we do not find significant interaction terms between either of the two primes and our measure of aspiration levels adjusted for present day socio-economic status. The interaction between the mobility prime and the aspiration level is never statistically significant. While the interaction between the poverty prime and the aspiration level is weakly significant in column (3), this significance disappears when we include district fixed effects, pre-treatment demographic control measures, or village fixed effects. As such, any significance of the interaction term between the poverty prime and aspiration levels is not robust.

in, and support for, government varies with the combination of increases in one's actual relative poverty level and increases in one's perceived mobility. Such research could, for example, consider a natural experiment such as a natural disaster that impacts relative poverty levels for some subset of a population.

Overall, our findings constitute an important theoretical and empirical contribution to the literature on drivers of support for government. They help make sense of the somewhat paradoxical claim articulated by Tocqueville (1856): that economic development and mobility do not always lead to increased confidence in government, and may potentially erode it, triggering greater opposition rather than support for their political leaders and system. They also help us understand *which* citizens are most likely to oppose government when made to feel both relatively poor and mobile; specifically, it is those with the highest aspiration levels to begin with, whose aspirations gaps accordingly increase the most when made to feel both relatively poor and mobile. From an academic perspective, this helps us better understand not only when acts of opposition to the government are most likely to emerge, but also which groups of citizens are most likely to join in such opposition and why. From a policy perspective, such information is useful for preventing state failure and designing responsive public policies that include citizens in the development process.

References

- Acemoglu, Daron, Georgy Egorov, and Konstantin Sonin. 2015. “Re-evaluating de Tocqueville: Social Mobility and Stability of Democracy.” Working Paper, Massachusetts Institute of Technology.
- Ansolabehere, Stephen, Jonathan Rodden, and James M. Jr. Snyder. 2008. “The Strength of Issues: Using Multiple Measures to Gauge Preference Stability, Ideological Constraint, and Issue Voting.” *American Political Science Review* 102(5): 215–232.
- Benjamini, Yoav, Abba M Krieger, and Daniel Yekutieli. 2006. “Adaptive Linear Step-Up Procedures that Control the False Discovery Rate.” *Biometrika* 93 (3): 491–507.
- Benjamini, Yoav, and Yosef Hochberg. 1995. “Controlling the False Discovery Rate: a Practical and Powerful Approach to Multiple Testing.” *Journal of the Royal Statistical Society. Series B (Methodological)* 289–300.
- Berger, Jonah, Marc Meredith, and S. Christian Wheeler. 2008. “Contextual Priming: Where People Vote Affects How They Vote.” *Proceedings of the National Academy of Sciences* 105 (26): 8846–8849.
- Bernard, Tanguy, and Alemayehu Seyoum Taffesse. 2014. “Aspirations: An Approach to Measurement with Validation Using Ethiopian Data.” *Journal of African Economies* 23 (2): 189–224.
- Blair, Dennis, Ronald Neumann, and Eric Olson. 2014. “Fixing Fragile States.” *The National Interest* .
- Blau, Peter M. Blau, and Otis D. Duncan. 1967. *The American Occupational Structure*. New York, NY: John Wiley and Sons.
- Central Intelligence Agency. 2015. “The World Factbook 2013-14.” Washington, DC: Central Intelligence Agency.
- Corak, Miles. 2012. “Economic Mobility Across the Generations in the United States: Comparisons, Causes, and Consequences.” Written Testimony to the United States Senate, Committee on Finance July 10th, 2012 Hearing on “Tax Reform: Drivers of Intergenerational Mobility and the Tax Code.” <http://www.finance.senate.gov/imo/media/doc/Corak%20Testimony.pdf>.

- Courneya, Kerry S., Lee W. Jones, Ryan E. Rhodes, and Chris M. Blanchard. 2003. "Effect of Response Scales on Self-Reported Exercise Frequency." *American Journal of Health Behavior* 27 (6): 613–622.
- Crosby, Faye. 1976. "A Model of Egoistic Relative Deprivation." *Psychological Review* 83: 95–113.
- DeMarree, Kenneth G., S. Christian Wheeler, and Richard E. Petty. 2005. "Priming a New Identity: Self-Monitoring Moderates the Effects of Nonself Primes on Self-Judgments and Behavior." *Journal of Personality and Social Psychology* 89 (5): 657–671.
- Fair, Christine, Rebecca Littman, Neil Malhotra, and Jacob N. Shapiro. 2015. "Relative Poverty, Perceived Violence, and Support for Militant Politics: Evidence from Pakistan." Working Paper, Stanford University.
- Felbab-Brown, Vanda. 2010. "Rules and Regulations in Ungoverned Spaces: Illicit Economies, Criminals, and Belligerents." In *Ungoverned Spaces: Alternatives to State Authority in an Era of Softened Sovereignty*, eds. Anne L. Clunan, and Harold A. Trinkunas. Stanford University Press 175–192.
- Festinger, Leon. 1954. "A Theory of Social Comparison Processes." *Human Relations* 7: 117–140.
- Ghani, Ashraf, and Clare F. Lockhart. 2009. *Fixing Failed States: A Framework for Rebuilding a Fractured World*. Cambridge: Oxford University Press.
- Goldhammer, Arthur, and Jon Elster. 2011. *Tocqueville: The Ancien Régime and the French Revolution*. Cambridge University Press.
- Haisley, Emily, Romel Mostafa, and George Loewenstein. 2008. "Subjective Relative Income and Lottery Ticket Purchases." *Journal of Behavioral Decision Making* 21: 283–295.
- Heath, Chip, Richard Larrick, and George Wu. 1999. "Goals as Reference Points." *Cognitive Psychology* 38: 79–109.
- Hirschman, Albert O., and Michael Rothschild. 1973. "The Changing Tolerance for Income Inequality in the Course of Economic Development." *Quarterly Journal of Economics* 87: 544–566.
- Kahneman, Daniel, and Amos Tversky. 1979. "Prospect Theory: An Analysis of Decision under Risk." *Econometrica* 47(March): 263–292.

- Keidel, Albert. 2005. "The Economic Basis for Social Unrest in China." Third European-American Dialogue on China, Washington, DC, May 26-27.
- Kosec, Katrina, and Huma Khan. 2016. "Understanding the Aspirations of the Rural Poor." In *Agriculture and Rural Poverty Reduction in Pakistan*, eds. David Spielman, Sohail Malik, Paul Dorosh, and Nuzhat Ahmad. University of Pennsylvania Press.
- Lamb, Robert D. 2008. "Ungoverned Areas and Threats from Safe Havens." Office of the Deputy Assistant Secretary of Defense for Policy Planning.
- Lewis-Beck, Michael S. 1988. *Economics and Elections: The Major Western Democracies*. Ann Arbor: University of Michigan Press.
- Lewis-Beck, Michael Steven, and Richard Nadeau. 2011. "Economic Voting Theory: Testing New Dimensions." *Electoral Studies* 30 (2): 288 – 294.
- Lipset, Seymour Martin. 1960. *Political Man: The Social Bases of Politics*. Baltimore, MD: The Johns Hopkins University Press.
- Lodge, Milton, and Charles S. Taber. 2005. "The Automaticity of Affect for Political Leaders, Groups, and Issues: An Experimental Test of the Hot Cognition Hypothesis." *Political Psychology* 26 (3): 8846–8849.
- Menon, Geeta, Priya Raghurir, and Norbert Schwarz. 1997. "How Much Will I Spend? Factors Affecting Consumers' Estimates of Future Expense." *Journal of Consumer Psychology* 6 (2): 141–164.
- Mo, Cecilia. 2012. "Essays in Behavioral Political Economy: The Effects of Affect, Attitude, and Aspirations." Ph.D. Diss. Stanford University, Stanford, CA. <http://searchworks.stanford.edu/view/9623096>.
- Mo, Cecilia. 2013. "The Effects of Perceived Relative Poverty on Risk: An Aspirations-Based Model of Trafficking Vulnerability." Working Paper, Vanderbilt University.
- Moore, Barrington. 1966. *Social Origins of Dictatorship and Democracy*. Boston, Massachusetts: Beacon Press.
- Patrick, Stewart. 2010. "Are Ungoverned Spaces a Threat?" Expert Brief for the Council on Foreign Relations, January 11.

- Ray, Debraj. 2006. "Aspirations, Poverty and Economic Change." In *Understanding Poverty*, eds. Abhijit V. Banerjee, Roland Benabou, and Dilip Mookherjee. Oxford, UK: Oxford University Press, 409–443.
- Rockwood, Todd H., Roberta L. Sangster, and Don A. Dillman. 1997. "The Effect of Response Categories on Questionnaire Answers." *Sociological Methods and Research* 26 (1): 118–149.
- Shwarz, Norbert, Hans J. Hipper, Brigitte Deutsch, and Fritz Strack. 1985. "Response Scales: Effects of Category Range on Reported Behavior and Comparative Judgments." *Public Opinion Quarterly* 49: 388–395.
- Suls, Jerry M., and Ladd Wheeler. 2000. *Handbook of Social Comparison: Theory and Research*. New York, NY: Kluwer Academic/Plenum Publishers.
- Tocqueville, Alexis de. 1835. *Democracy in America*. trans. Henry Reeve. South Australia: The University of Adelaide.
- Tocqueville, Alexis de. 1856. *The Old Regime and the Revolution*. trans. by John Bonner. New York, NY: Harper Press.
- Walker, Iain, and Heather J. Smith. 2001. *Relative Deprivation: Specification, Development and Integration*. Cambridge: Cambridge University Press.

Table 1: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Assignment					
Control	1,540	0.244	0.429	0	1
Mobility Prime	1,540	0.259	0.438	0	1
Poverty Prime	1,540	0.249	0.432	0	1
Mobility + Poverty Primes	1,540	0.249	0.432	0	1
Outcome Measures					
Government (Gov't) Confidence Index	1,540	0.402	0.227	0	1
Overall Satisfaction with Gov't	1,540	0.381	0.326	0	1
Satisfaction with Gov't Community Services	1,540	0.408	0.303	0	1
Satisfaction with Gov't Security Services	1,540	0.451	0.296	0	1
Support of Political System	1,540	0.369	0.272	0	1
Pre-Treatment Measures					
Aspiration Level	1,540	0.103	0.671	-2.062	6.536
Log(HH Income)	1,540	11.266	0.955	7.601	15.425
Log(HH Assets)	1,540	11.680	1.457	5.704	15.398
Social Status	1,540	4.895	1.817	0	10
Primary Education (grades 1-5)	1,540	0.191	0.393	0	1
Middle Education (grades 6-8)	1,540	0.084	0.277	0	1
Secondary Education	1,540	0.145	0.352	0	1
Tertiary Education	1,540	0.025	0.157	0	1
Mother's Education (Years)	1,540	0.152	0.907	0	12
Father's Education (Years)	1,540	1.006	2.520	0	16
Trust in Society/Government	1,540	0.065	0.567	-2.071	2.031
Envy	1,540	-0.008	0.865	-0.866	1.163
Female	1,540	0.306	0.461	0	1
Age 18-25	1,540	0.093	0.290	0	1
Age 25-35	1,540	0.268	0.443	0	1
Age 35-45	1,540	0.266	0.442	0	1
Age 45-55	1,540	0.212	0.409	0	1
Married	1,540	0.927	0.261	0	1
HH size	1,540	6.208	2.924	2	35
ethnicity: Sindhi	1,540	0.235	0.424	0	1
ethnicity: Pakhtoon	1,540	0.058	0.233	0	1
ethnicity: Baloch	1,540	0.074	0.262	0	1
ethnicity: Urdu	1,540	0.038	0.192	0	1
ethnicity: Shina	1,540	0.047	0.211	0	1
ethnicity: Saraiki	1,540	0.218	0.413	0	1
ethnicity: Mevati	1,540	0.001	0.025	0	1
ethnicity: Hindko	1,540	0.011	0.105	0	1
ethnicity: Marwari	1,540	0.010	0.098	0	1
ethnicity: Hazarwal	1,540	0.048	0.214	0	1
ethnicity: Kashmiri	1,540	0.000	0.000	0	0
Manipulation Check					
Perceived Mobility	1,540	0.399	0.277	0	1
Subjective Well-Being	1,540	5.005	1.902	1	10

Table 2: Impact of Mobility and Relative Poverty on Government Confidence

	(1)	(2)	(3)	(4)
Mobility Prime	-0.014 (0.016)	-0.013 (0.015)	-0.015 (0.015)	-0.012 (0.015)
Poverty Prime	-0.034** (0.016)	-0.033** (0.015)	-0.036** (0.015)	-0.032** (0.015)
Mobility + Poverty Primes	0.007 (0.017)	0.008 (0.015)	0.006 (0.015)	0.004 (0.015)
Aspiration Level			0.000 (0.010)	-0.002 (0.011)
Log(HH Income)			-0.001 (0.008)	-0.003 (0.008)
Log(HH Assets)			0.002 (0.005)	0.003 (0.005)
Social Status			-0.004 (0.004)	-0.003 (0.004)
Primary Education			-0.024* (0.015)	-0.018 (0.015)
Middle School Education			-0.027 (0.023)	-0.023 (0.022)
Secondary Education			0.037* (0.020)	0.044** (0.020)
Tertiary Education			0.029 (0.045)	0.031 (0.043)
Mother's Education			-0.012** (0.006)	-0.010* (0.006)
Father's Education			0.001 (0.002)	0.000 (0.003)
Trust			-0.020* (0.011)	-0.034*** (0.013)
Envy			0.013* (0.007)	0.011 (0.007)
Female			0.004 (0.016)	0.007 (0.016)
Aged 18-25			-0.018 (0.024)	-0.025 (0.024)
Aged 25-35			-0.011 (0.018)	-0.017 (0.018)
Aged 35-45			-0.012 (0.018)	-0.017 (0.018)
Aged 45-55			-0.032* (0.018)	-0.041** (0.018)
Married			0.018 (0.022)	0.012 (0.022)
HH size			0.000 (0.002)	-0.000 (0.002)
Constant	0.413*** (0.012)	0.387*** (0.058)	0.381*** (0.114)	0.168* (0.101)
Ethnicity Fixed Effects	No	No	Yes	Yes
District Fixed Effects	No	Yes	Yes	No
Village Fixed Effects	No	No	No	Yes
Observations	1,540	1,540	1,540	1,540
R-squared	0.005	0.140	0.166	0.235

Notes: Robust standard errors are in parentheses and clustered at the household level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

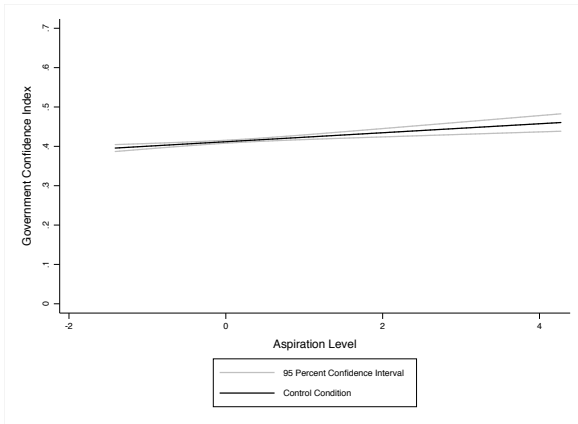
Table 3: Impact of Mobility and Relative Poverty on Government Confidence by Aspiration Level

	(1)	(2)	(3)	(4)
Mobility Prime	-0.012 (0.016)	-0.012 (0.015)	-0.014 (0.015)	-0.012 (0.015)
Poverty Prime	-0.033** (0.016)	-0.033** (0.015)	-0.035** (0.015)	-0.033** (0.015)
Mobility + Poverty Primes	0.014 (0.017)	0.012 (0.016)	0.011 (0.016)	0.009 (0.015)
Aspiration Level	0.031* (0.016)	0.011 (0.015)	0.014 (0.016)	0.008 (0.016)
Mobility Prime X Aspiration Level	-0.007 (0.024)	-0.007 (0.022)	-0.006 (0.022)	-0.003 (0.022)
Poverty Prime X Aspiration Level	-0.011 (0.021)	-0.005 (0.020)	-0.006 (0.020)	0.002 (0.020)
Mobility + Poverty Primes X Aspiration Level	-0.066*** (0.024)	-0.049** (0.023)	-0.047** (0.023)	-0.045** (0.022)
Log(HH Income)	-0.018*** (0.007)	-0.003 (0.007)	-0.001 (0.008)	-0.002 (0.008)
Log(HH Assets)	-0.004 (0.004)	0.002 (0.005)	0.002 (0.005)	0.003 (0.005)
Social Status	-0.009*** (0.003)	-0.004 (0.004)	-0.004 (0.004)	-0.003 (0.004)
Primary Education	-0.047*** (0.015)	-0.028** (0.014)	-0.024* (0.014)	-0.018 (0.015)
Middle School Education	-0.049** (0.023)	-0.034 (0.022)	-0.028 (0.023)	-0.024 (0.022)
Secondary Education	0.033* (0.019)	0.031 (0.019)	0.039** (0.020)	0.046** (0.020)
Tertiary Education	0.045 (0.048)	0.029 (0.045)	0.034 (0.045)	0.037 (0.044)
Trust			-0.011** (0.006)	-0.010* (0.006)
Envy			0.001 (0.002)	0.000 (0.002)
Female			-0.020* (0.011)	-0.034*** (0.013)
Aged 18-25			0.013* (0.007)	0.011 (0.008)
Aged 25-35			0.005 (0.016)	0.008 (0.016)
Aged 35-45			-0.020 (0.024)	-0.028 (0.024)
Aged 45-55			-0.011 (0.018)	-0.017 (0.018)
Married			-0.013 (0.018)	-0.019 (0.018)
Mother's Education			-0.032* (0.018)	-0.041** (0.018)
Father's Education			0.017 (0.022)	0.010 (0.022)
HH size			0.000 (0.002)	-0.000 (0.002)
Constant	0.411*** (0.012)	0.386*** (0.058)	0.379*** (0.112)	0.176* (0.096)
Ethnicity Fixed Effects	No	No	Yes	Yes
District Fixed Effects	No	Yes	Yes	No
Village Fixed Effects	No	No	No	Yes
Observations	1,540	1,540	1,540	1,540
R-squared	0.037	0.151	0.169	0.239

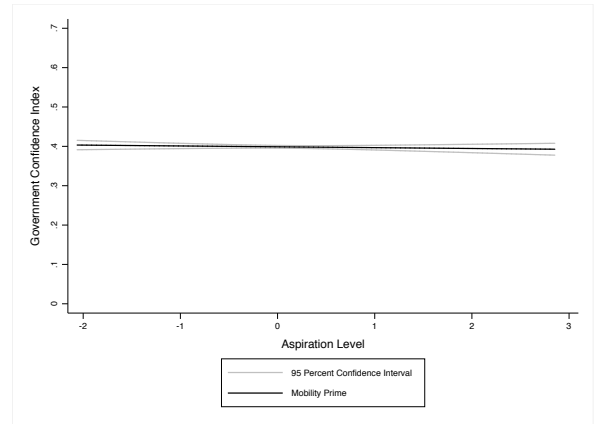
Notes: Robust standard errors are in parentheses and clustered at the household level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure 1: Effect of Aspiration Level on Government Confidence Index by Condition

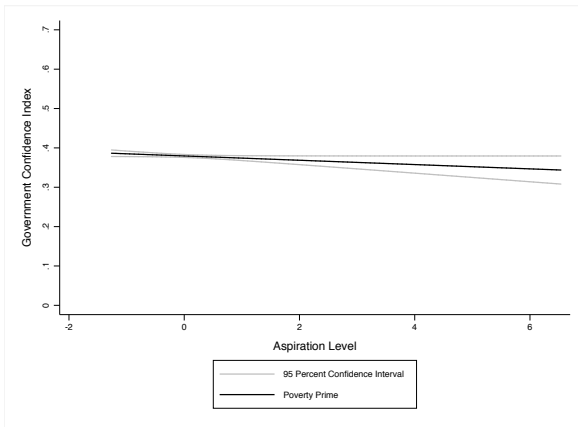
(a) Control Condition



(b) Mobility Prime



(c) Poverty Prime



(d) Mobility + Poverty Primes

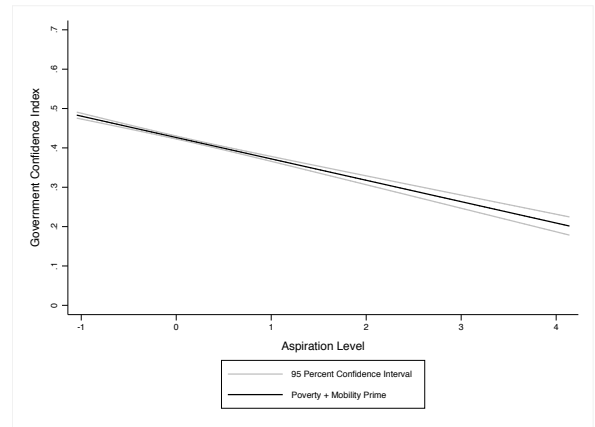
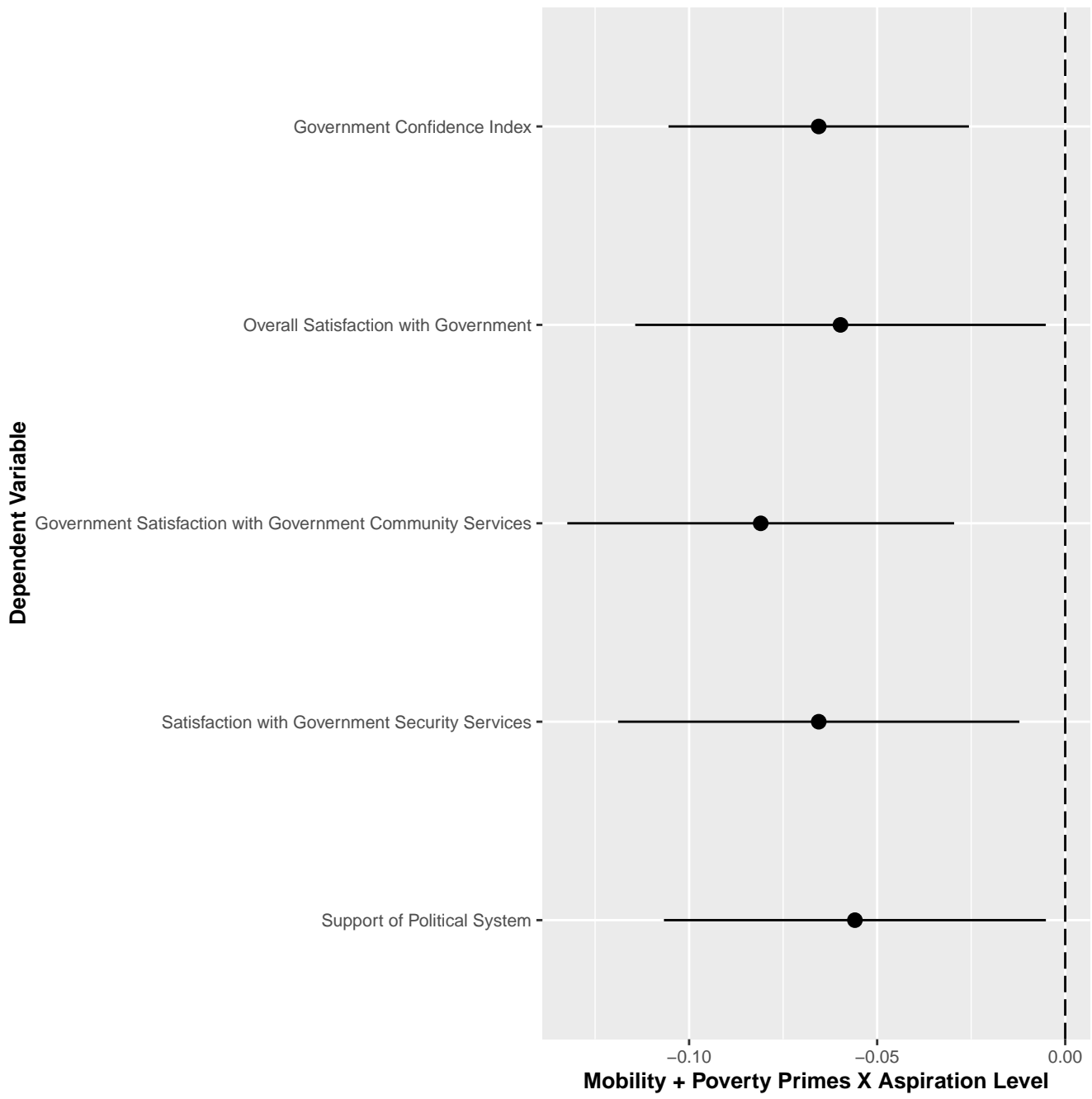


Figure 2: Interaction Effect between Mobility + Poverty Primes and Aspiration Level on Each Government Confidence Index Measure



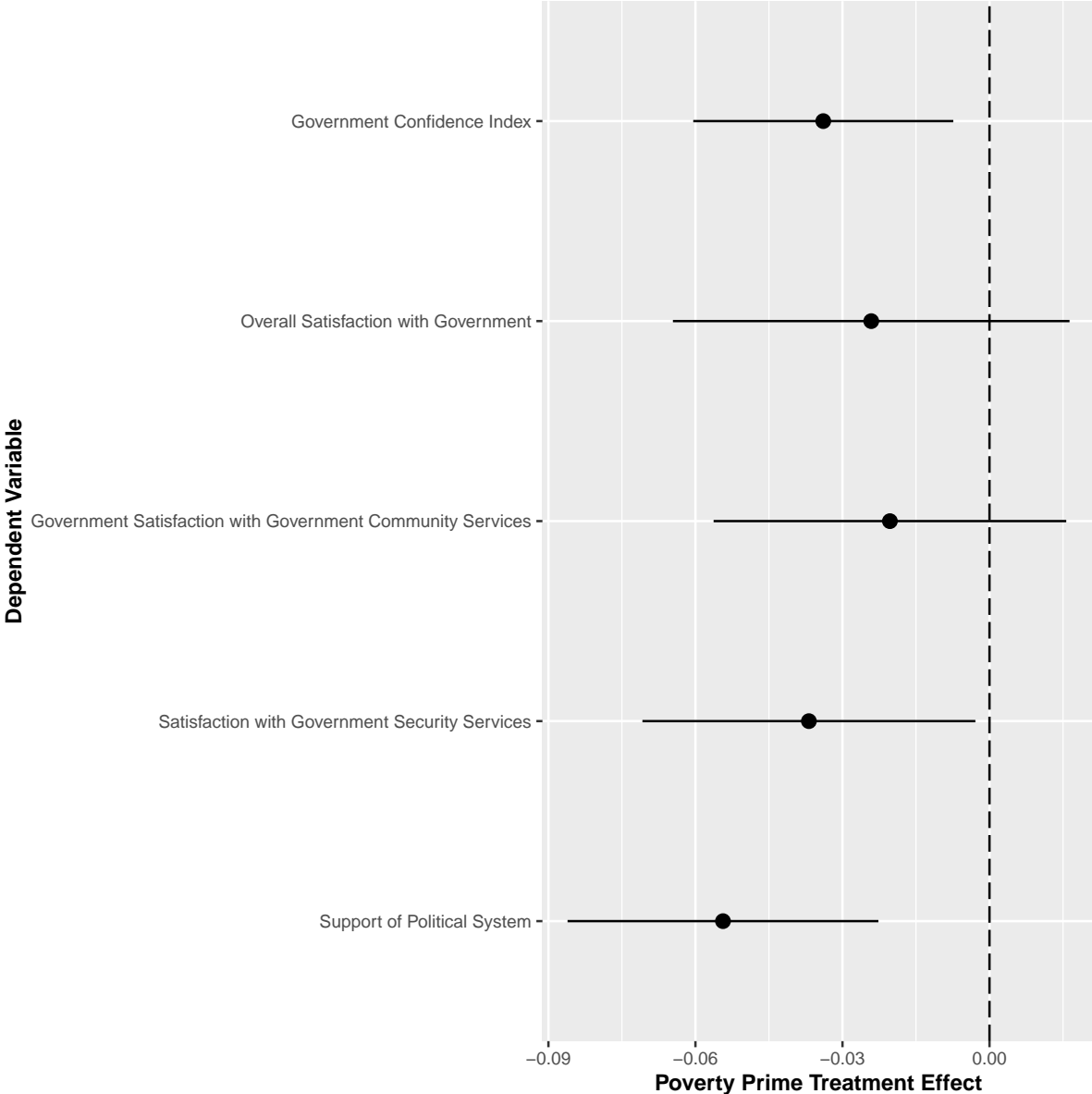
Notes: The figure displays effect sizes with 95% confidence intervals.

Online Appendix

*Economic Development, Mobility and
Political Discontent: An Experimental Test
of Tocqueville's Thesis in Pakistan*

A Additional Figures and Tables

Figure A.1: Effect of Poverty Prime on Each Government Confidence Index Measure



Notes: The figure displays effect sizes with 95% confidence intervals.

Table A.1: Balance Tests

	Mean				Comparing Means (P-value)								Joint Test (P-Value)
	(1) Neither (2) Mobility (3) Poverty (4) Mobility (4) Mobility + Poverty	(1) vs. (2)	(1) vs. (3)	(1) vs. (4)	(2) vs. (3)	(2) vs. (4)	(3) vs. (4)	(3) vs. (4)	(3) vs. (4)	(3) vs. (4)	(3) vs. (4)	(3) vs. (4)	
Aspiration Level	0.105	0.092	0.091	0.125	0.791	0.787	0.692	0.990	0.488	0.492	0.892		
Log(HH Income)	11.175	11.311	11.269	11.304	0.036	0.160	0.064	0.535	0.913	0.633	0.177		
Log(HH Assets)	11.725	11.637	11.596	11.764	0.409	0.224	0.708	0.697	0.225	0.107	0.356		
Social Status	4.861	4.850	4.927	4.943	0.926	0.616	0.538	0.553	0.479	0.908	0.860		
Primary Education (grades 1-5)	0.203	0.206	0.188	0.167	0.922	0.611	0.208	0.538	0.169	0.450	0.511		
Middle Education (grades 6-8)	0.091	0.085	0.073	0.086	0.789	0.378	0.827	0.532	0.962	0.505	0.840		
Secondary Education	0.133	0.140	0.146	0.159	0.777	0.610	0.313	0.815	0.459	0.616	0.774		
Tertiary Education	0.021	0.023	0.018	0.039	0.908	0.763	0.153	0.673	0.179	0.084	0.250		
Mother's Education (Years)	0.109	0.120	0.162	0.217	0.852	0.377	0.132	0.484	0.172	0.444	0.346		
Father's Education (Years)	0.883	0.852	0.982	1.311	0.853	0.576	0.023	0.459	0.013	0.095	0.045		
Trust in Society/Government	0.063	0.056	0.080	0.061	0.869	0.687	0.970	0.565	0.899	0.657	0.944		
Envy	-0.018	-0.046	-0.009	0.042	0.641	0.886	0.343	0.542	0.155	0.420	0.547		
Female	0.283	0.313	0.316	0.313	0.353	0.318	0.357	0.937	0.999	0.938	0.722		
Age 18-25	0.083	0.103	0.081	0.104	0.337	0.931	0.304	0.292	0.939	0.263	0.536		
Age 25-35	0.259	0.253	0.305	0.256	0.860	0.153	0.930	0.103	0.930	0.127	0.303		
Age 35-45	0.283	0.283	0.219	0.277	0.987	0.044	0.857	0.040	0.841	0.066	0.130		
Age 45-55	0.211	0.211	0.206	0.222	0.996	0.882	0.707	0.884	0.699	0.598	0.958		
Married	0.920	0.927	0.945	0.914	0.702	0.167	0.759	0.308	0.486	0.091	0.377		
HH size	6.328	6.248	6.240	6.016	0.712	0.701	0.159	0.969	0.229	0.274	0.492		
ethnicity: Sindh	0.243	0.258	0.214	0.225	0.620	0.349	0.556	0.148	0.273	0.727	0.481		
ethnicity: Pakhtoon	0.067	0.048	0.057	0.060	0.253	0.599	0.709	0.538	0.441	0.878	0.721		
ethnicity: Baloch	0.085	0.045	0.081	0.086	0.023	0.827	0.968	0.039	0.020	0.794	0.084		
ethnicity: Urdu	0.024	0.043	0.042	0.044	0.151	0.171	0.123	0.954	0.903	0.859	0.425		
ethnicity: Shina	0.051	0.035	0.055	0.047	0.284	0.798	0.815	0.182	0.401	0.622	0.592		
ethnicity: Saraiki	0.221	0.221	0.238	0.193	0.979	0.595	0.340	0.571	0.346	0.135	0.517		
ethnicity: Mevati	0.003	0.000	0.000	0.000	0.303	0.313	0.313	.	.	.	0.376		
ethnicity: Hindko	0.011	0.010	0.013	0.010	0.930	0.762	0.976	0.692	0.954	0.738	0.978		
ethnicity: Marwari	0.011	0.008	0.010	0.010	0.644	0.976	0.976	0.665	0.665	1.000	0.964		
ethnicity: Hazarwal	0.056	0.038	0.042	0.057	0.225	0.364	0.932	0.765	0.192	0.319	0.469		
ethnicity: Kashmiri	0.000	0.000	0.000	0.000	---	---	---	---	---	---	---		
Proportion	0.244	0.259	0.249	0.249	---	---	---	---	---	---	---		

Table A.2: Impact of Mobility and Relative Poverty on Each Government Confidence Measure

	Government (Gov't) Confidence Index (1)	(2)	Overall Satisfaction with Gov't (3)	(4)	Satisfaction with Gov't Community Services (5)	(6)	Satisfaction with Gov't Security Services (7)	(8)	Satisfaction with Gov't Political System (9)	(10)
Mobility Prime	-0.014 (0.016)	-0.012 (0.016)	-0.004 (0.024)	-0.003 (0.024)	-0.010 (0.022)	-0.003 (0.022)	-0.034 (0.021)	-0.033 (0.021)	-0.009 (0.020)	-0.008 (0.020)
Poverty Prime	-0.034** (0.016)	-0.033** (0.016)	-0.024 (0.025)	-0.025 (0.025)	-0.020 (0.022)	-0.017 (0.022)	-0.037* (0.021)	-0.036* (0.021)	-0.054*** (0.019)	-0.052*** (0.019)
Mobility + Poverty Primes	0.007 (0.017)	0.014 (0.017)	0.014 (0.025)	0.022 (0.024)	0.023 (0.022)	0.031 (0.023)	-0.014 (0.022)	-0.007 (0.021)	0.003 (0.020)	0.011 (0.020)
Aspiration Level		0.031* (0.016)		0.021 (0.026)		0.029 (0.022)		0.017 (0.025)		0.056** (0.023)
Mobility Prime X Aspiration Level		-0.007 (0.024)		0.006 (0.034)		-0.047 (0.032)		-0.005 (0.033)		0.017 (0.030)
Poverty Prime X Aspiration Level		-0.011 (0.021)		-0.007 (0.031)		-0.017 (0.033)		-0.009 (0.029)		-0.011 (0.028)
Mobility + Poverty Primes X Aspiration Level		-0.066*** (0.024)		-0.060* (0.033)		-0.081*** (0.031)		-0.066** (0.033)		-0.056* (0.031)
Log(HH Income)		-0.018*** (0.007)		-0.030*** (0.010)		-0.014 (0.010)		-0.007 (0.009)		-0.022*** (0.008)
Log(HH Assets)		-0.004 (0.004)		-0.018*** (0.007)		0.004 (0.006)		-0.003 (0.006)		0.000 (0.005)
Social Status		-0.009*** (0.003)		-0.009* (0.005)		-0.008 (0.005)		-0.014*** (0.005)		-0.007 (0.004)
Primary Education		-0.047*** (0.015)		-0.087*** (0.022)		-0.040** (0.020)		-0.043** (0.020)		-0.017 (0.019)
Middle School Education		-0.049** (0.023)		-0.095*** (0.031)		0.014 (0.030)		-0.041 (0.029)		-0.076*** (0.029)
Secondary Education		0.033* (0.019)		0.029 (0.028)		0.062** (0.025)		0.015 (0.025)		0.027 (0.022)
Tertiary Education		0.045 (0.048)		0.034 (0.060)		0.075 (0.057)		0.073 (0.060)		-0.001 (0.051)
Constant	0.413*** (0.012)	0.718*** (0.079)	0.384*** (0.018)	0.999*** (0.119)	0.410*** (0.016)	0.552*** (0.108)	0.471*** (0.015)	0.654*** (0.103)	0.384*** (0.014)	0.664*** (0.096)
Observations	1,540	1,540	1,540	1,540	1,540	1,540	1,540	1,540	1,540	1,540
R-squared	0.005	0.037	0.002	0.048	0.003	0.020	0.003	0.021	0.007	0.029

Notes: Robust standard errors are in parentheses and clustered at the household level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.3: Impact of Mobility, Relative Poverty, and Aspiration Level on Government Confidence by Subjective Well-Being

	Low Subjective Well-Being					High Subjective Well-Being						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Mobility Prime	-0.007 (0.024)	0.000 (0.023)	0.006 (0.023)	0.006 (0.024)	-0.001 (0.023)	0.005 (0.023)	-0.018 (0.022)	-0.021 (0.020)	-0.019 (0.020)	-0.017 (0.023)	-0.021 (0.021)	-0.021 (0.021)
Poverty Prime	-0.014 (0.026)	-0.010 (0.024)	-0.006 (0.023)	-0.010 (0.026)	-0.008 (0.024)	-0.007 (0.024)	-0.045** (0.021)	-0.048** (0.020)	-0.041** (0.019)	-0.041* (0.021)	-0.047** (0.021)	-0.041** (0.021)
Mobility + Poverty Primes	0.014 (0.027)	0.016 (0.025)	0.009 (0.025)	0.016 (0.027)	0.016 (0.025)	0.009 (0.025)	0.003 (0.022)	-0.001 (0.020)	-0.002 (0.020)	0.022 (0.022)	0.014 (0.021)	0.012 (0.020)
Aspiration Level				0.031 (0.022)	0.013 (0.021)	0.005 (0.022)				0.028 (0.023)	0.016 (0.022)	0.020 (0.021)
Mobility Prime X Aspiration Level				-0.002 (0.030)	-0.014 (0.030)	-0.016 (0.031)				-0.010 (0.034)	-0.003 (0.031)	0.008 (0.030)
Poverty Prime X Aspiration Level				0.012 (0.042)	0.008 (0.039)	-0.014 (0.040)				0.034 (0.028)	0.031 (0.026)	0.005 (0.025)
Mobility + Poverty Primes X Aspiration Level				-0.011 (0.040)	0.000 (0.036)	0.004 (0.033)				-0.094*** (0.031)	-0.072** (0.030)	-0.062** (0.027)
Log(HH Income)		-0.011 (0.013)	-0.006 (0.014)	-0.033*** (0.013)	-0.013 (0.013)	-0.006 (0.014)		0.002 (0.009)	0.000 (0.010)	-0.011 (0.009)	0.003 (0.010)	-0.001 (0.010)
Log(HH Assets)		0.004 (0.007)	0.003 (0.007)	-0.002 (0.007)	0.004 (0.007)	0.003 (0.007)		-0.002 (0.006)	-0.008 (0.007)	-0.008 (0.006)	-0.002 (0.006)	-0.002 (0.007)
Social Status		-0.015** (0.007)	-0.013* (0.007)	-0.023*** (0.005)	-0.017** (0.007)	-0.013* (0.008)		-0.002 (0.005)	-0.003 (0.005)	-0.005 (0.005)	-0.001 (0.006)	-0.003 (0.006)
Primary Education		-0.020 (0.022)	-0.013 (0.023)	-0.034 (0.022)	-0.020 (0.023)	-0.013 (0.023)		-0.029 (0.020)	-0.016 (0.020)	-0.054*** (0.020)	-0.027 (0.020)	-0.017 (0.020)
Middle School Education		-0.012 (0.032)	-0.003 (0.035)	-0.058* (0.034)	-0.014 (0.033)	-0.001 (0.036)		-0.035 (0.030)	-0.033 (0.029)	-0.047 (0.029)	-0.033 (0.030)	-0.035 (0.029)
Secondary Education		0.061* (0.034)	0.060* (0.035)	0.032 (0.034)	0.057 (0.035)	0.060 (0.037)		0.021 (0.025)	0.034 (0.025)	0.030 (0.023)	0.026 (0.025)	0.037 (0.025)
Tertiary Education		0.140 (0.132)	0.141 (0.137)	0.139 (0.143)	0.136 (0.133)	0.139 (0.140)		0.001 (0.048)	0.006 (0.047)	0.032 (0.051)	0.010 (0.049)	0.011 (0.048)
Constant	0.402*** (0.018)	0.508*** (0.172)	0.461* (0.248)	0.880*** (0.148)	0.533*** (0.180)	0.462* (0.259)	0.419*** (0.016)	0.379*** (0.138)	0.324** (0.138)	0.669*** (0.095)	0.360** (0.145)	0.359** (0.144)
Demographic Controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Ethnicity Fixed Effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
District Fixed Effects	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
Village Fixed Effects	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	571	571	571	571	571	571	969	969	969	969	969	969
R-squared	0.002	0.223	0.329	0.06	0.224	0.33	0.007	0.175	0.28	0.041	0.182	0.287

Notes: Robust standard errors are in parentheses and clustered at the household level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.4: Mobility Prime Manipulation Check: Impact of Mobility Prime on Perceived Mobility

	(1)	(2)	(3)	(4)	(5)	(6)
Mobility Prime	0.036** (0.014)	0.036*** (0.013)	0.038*** (0.014)	0.035*** (0.013)	0.037*** (0.013)	0.032** (0.013)
Poverty Prime	-0.008 (0.014)	-0.008 (0.013)	-0.006 (0.014)	-0.008 (0.013)	-0.009 (0.013)	-0.016 (0.013)
Aspiration Level			0.073*** (0.020)	0.038** (0.018)	0.040** (0.020)	0.034* (0.020)
Mobility Prime × Aspiration Level			-0.007 (0.021)	-0.007 (0.019)	-0.013 (0.019)	-0.011 (0.018)
Poverty Prime × Aspiration Level			-0.036* (0.021)	-0.019 (0.019)	-0.017 (0.019)	-0.016 (0.018)
Log(HH Income)			-0.022** (0.009)	0.001 (0.009)	-0.000 (0.009)	-0.001 (0.009)
Log(HH Assets)			0.001 (0.006)	0.002 (0.006)	0.001 (0.006)	0.004 (0.006)
Social Status			-0.002 (0.004)	0.011** (0.005)	0.012** (0.005)	0.013*** (0.005)
Primary Education			-0.025 (0.019)	-0.007 (0.018)	-0.004 (0.019)	0.006 (0.019)
Middle School Education			-0.120*** (0.026)	-0.107*** (0.024)	-0.107*** (0.025)	-0.095*** (0.025)
Secondary Education			-0.002 (0.023)	0.007 (0.022)	0.003 (0.023)	0.009 (0.023)
Tertiary Education			0.019 (0.049)	0.031 (0.046)	0.017 (0.046)	0.024 (0.048)
Mother's Education					-0.001 (0.007)	-0.002 (0.007)
Father's Education					0.001 (0.003)	0.002 (0.003)
Trust					0.019 (0.014)	0.009 (0.015)
Envy					-0.011 (0.008)	-0.011 (0.009)
Female					0.012 (0.018)	0.015 (0.019)
Aged 18-25					0.002 (0.030)	0.002 (0.030)
Aged 25-35					0.002 (0.021)	0.006 (0.021)
Aged 35-45					0.007 (0.021)	0.006 (0.021)
Aged 45-55					-0.003 (0.021)	-0.004 (0.021)
Married					-0.027 (0.030)	-0.025 (0.032)
HH size					0.002 (0.003)	0.001 (0.003)
Constant	0.385*** (0.013)	0.236*** (0.082)	0.633*** (0.100)	0.185 (0.133)	0.273** (0.136)	0.319** (0.135)
Ethnicity Fixed Effects	No	No	No	No	Yes	Yes
District Fixed Effects	No	Yes	No	Yes	Yes	No
Village Fixed Effects	No	No	No	No	No	Yes
Observations	1,540	1,540	1,540	1,540	1,540	1,540
R-squared	0.004	0.170	0.032	0.192	0.206	0.247

Notes: Robust standard errors are in parentheses and clustered at the household level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

B Data Appendix

Aspirations Questions:

- Annual income: Annual income is the amount of CASH income you earn from all agricultural and non-agricultural activities, and money from BISP or other programs.
 - A.1.1 What is the level of personal income you have at present?
 - A.1.2 What is the level of personal income you would like to achieve?
- Assets: In section A.2, “you” implies “your household.” Example of assets are vehicle, furniture, tv, cellphone. Please DO NOT include land and livestock, since these questions are aimed at non-productive assets (standard of living).
 - A.2.1 What is the level of assets you have at present? (What is the approximate value of the assets you have at present)? Report in PKR
 - A.2.2 What is the level of assets that you would like to achieve?
- Social Status On a scale of 1 to 10, 1 being the lowest and 10 being the highest level of social status one has, answer the following section.
 - A.3.1 What is the level of social status you have at present?
 - A.3.2 What is the level of social status that you would like to achieve?
- Education
 - A.4.1 What is your current level of education?
 - A.4.2 What level of education you would like to (wanted to) achieve?
 - * 00 - Katchi/Pacci
 - * 01 - Grade 1pr
 - * 02 - Grade 2
 - * 03 - Grade 3
 - * 04 - Grade 4
 - * 05 - Grade 5
 - * 06 - Grade 6
 - * 07 - Grade 7
 - * 08 - Grade 8
 - * 09 - Grade 9
 - * 10 - Grade 10
 - * 11 - Grade 11
 - * 12 - Grade 12
 - * 13 - Incomplete higher secondary (not university)
 - * 14 - Complete higher secondary (not university)
 - * 15 - Incomplete university
 - * 16 - Complete university
 - * 17 - MBBS Doctor

- * 18 - Engineer
- * 19 - Lawyer
- * 20 - Scientist
- * 21 - Diploma
- * 22 - Adult literacy program
- * 23 - Other literacy program
- * 24 - Deeni Madrassa
- * 25 - Never enrolled
- * 26 - Dropped out without completing Grade 1
- * 99 - Not applicable
- * Others (Please Specify)