Matthew M. Singer, Informal Sector Work and Evaluations of the Incumbent: The Electoral Effect of Vulnerability on Economic Voting

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**Web Appendix 1: Questions and Codes Used in the 2005 Buenos Aires Survey**

*Vote for Kirchner*: The dependent variable is a dummy variable coded from a closed-ended question “If today were the presidential election, whom would you vote for?” Respondents who specifically named Kirchner were coded as 1, all others were coded as 0.

[Informal Sector Measurement]: Generated from three questions, as described in the text: Does the principal source of household income have a formal contract with his employer?, In the head of households' work, does his or her employer withhold payments for retirement/pensions?, In his work, does the principal income source get paid sick leave?. Three dummy variables are created from these measures, with 1 representing an affirmative answer. Two additional variables are generated from their combination: one representing their sum (from 0-3) and a dummy that takes the value of 1 if they sum to 3 and 0 otherwise. For the combined measures, non-respondents on any question are coded as missing for the index.

Sociotropic Prospective Economic Expectation: A 4-point variable coded from the question “With respect to the future of the country over the next year, how do you think things will be over the next few months?” Possible responses are [0] Worse, [1] the same-bad, [2] the same-good, and [3] better.

*Peronist Party Identifier*: Respondents were asked “which party do you consider yourself a sympathizer with?” A dummy variable that takes the value of 1 if the respondent considers herself a peronist sympathizer and 0 otherwise.

*No Party Identification*: From the party sympathy question, a dummy variable that takes the value of 1 if the respondent said “none” or “am independent” and 0 otherwise.

*Income Sufficient to Meet Needs*: A 4 point variable coded from the question “during the past year, could your family [0] had to borrow money, [1] spent savings, [2] barely made ends meet, [3] was able to save.

*Age*: Age in years

*Education Level*: A categorical variable taking three values: [0] for all respondents with an incomplete secondary education or less, [4] for all respondents with at least a secondary education but who did not finish the university, and [13] for those who completed the university.

*Male*: A dummy variable that takes the value of 1 if the respondent is male and 0 if she is female.

*Lives Outside Capital*: A dummy variable that takes the value of 0 if the respondent lived in the capital district and 1 if he or she lived in the suburbs of greater Buenos Aires.

**Web Appendix 2: Government Approval, Urban Centers and Selected Rural Areas, 2006**

*Data*

The initial results from Greater Buenos Aires provide evidence that informal employment enhances the economy’s salience. There is a significant interactive effect between sociotropic perceptions and informal status no matter how informality is operationalized. The analysis is limited, however, by its small size and its limited geographic scope.

To further explore the effect of informality on how citizens evaluate political leaders, I added a question on informal employment to an omnibus survey conducted by the polling firm *IPOSOS Mora y Araujo* in June 2006. While this survey is not truly national in scope (very few surveys in Argentina at the time used true national samples except during elections), it includes face-to-face interviews with nearly 1200 citizens from GBA, other large urban centers (Mar del Plata, Rosario, Cordoba, Mendoza, and Neuquén), and a couple of smaller cities and rural areas (General Paz, Olavarría, and rural Buenos Aires Province). These cities represent over 75% of Argentina’s population and the major geographic regions of the country. The interviews were conducted face-to-face over a two week period.

The difficulty in working with an omnibus survey is that one cannot change the other variables in the survey. The analysis in this section thus diverge from those in the previous section in four important ways. First, while the previous section focused on vote choice in a hypothetical election, the dependent variable in this survey is approval of the incumbent president, Nestor Kirchner. Yet vote intention and government approval measures both track evaluations of government competence and respond to economic performance in a comparable manner (Gélineau 2013) and both are often used interchangeably in accountability studies (see Lewis-Beck and Stegmaier 2013 for a review) and so the results should be comparable despite these differences.

Second, while previous analysis used a prospective sociotropic evaluation, in this survey the economic perception measure is retrospective, asking about the state of economy compared to 12 months in the past. Estimates of economic voting in Latin America based on prospective and retrospective measures tend to be statistically indistinguishable for most of the government’s term in office and their effect is conditional upon the same political and economic contextual variables (see Singer and Carlin 2013). Thus we do not have strong a priori reasons to expect that the weight that vulnerable respondents will give to national economic trends will differ according to the temporal reference point of the survey item.

Third, space constraints on the questionnaire precluded the full battery of informal sector indicators, so respondents were asked if the primary wage earner in their household had a written contract since that is the element of formal employment that provides access to employment law guarantees.

Finally, the omnibus survey did not include a measure of partisanship or ideology and space constraints prevented the inclusion of these questions. I can control, however, for factors like the respondent’s gender, age, education status, income, and whether they lived in an urban or rural area that might predispose them to support the incumbent government. Specific question wordings are available in web appendix 3 below.

*Results*

Despite the differences in model specification, the results of the logistic confirm that the correlation between economic performance and government support is conditional upon economic vulnerability (see table A1 below). There is a strong association between respondents’ evaluations of the national economy and their propensity to approve of the incumbent president (Column 1). This effect is quite large; as economic perceptions go from their minimum to their maximum, the predicted probability of approving of the incumbent increases by 0.81 for an average respondent. Then while the data in Table 1 showed that workers without a contract were slightly more supportive of the incumbent on average, there is no evidence in this larger and geographically diverse sample that workers without a contract or their dependents are more likely to support President Kirchner than are formal sector workers (column 2). This is because the effect of informality is contingent upon economic performance. In column 3, we see that there is a significant interactive effect between economic perceptions and informality. As shown in Figure 3 in the text, informal sector workers who think the economy is doing poorly are expected to have more negative views of the incumbent than does a similarly pessimistic formally employed individual. Then both groups see their predicted approval rise as economic optimism increases, but the positive and significant interaction term implies that it raises more quickly for informal workers, such that they become more likely (slightly, but significantly) than formal sector workers to approve of the president when they think the economy is doing well. This provides further evidence that the salience of economic outcomes is conditional upon levels of economic vulnerability like informality.

Gélineau, Francois. 2013. Electoral accountability in the developing world. *Electoral Studies* 32 (3): 418-24.

Lewis-Beck, Michael, Mary Stegmaier. 2013. The VP-function revisited: a survey of the literature on vote and popularity functions after over 40 years. *Public Choice* 157 (Dec): 367-385.

Table A1. Informal Sector Employment and Government Approval, Argentina 2006

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | [1] | (SE) | [2] | (SE) | [3] | (SE) |
| Informal Sector Worker |  |  | 0.131 | (0.201) | -0.887\* | (0.517) |
| Economy Compared to a Year Ago | 0.963\*\*\* | (0.077) | 0.963\*\*\* | (0.078) | 0.794\*\*\* | (0.102) |
| Informal\*Economy |  |  |  |  | 0.293\* | (0.150) |
| Age | -0.004 | (0.006) | -0.004 | (0.006) | -0.002 | (0.006) |
| Female | -0.095 | (0.160) | -0.092 | (0.160) | -0.077 | (0.164) |
| Education | -0.062 | (0.043) | -0.057 | (0.044) | -0.060 | (0.049) |
| Income | -0.066 | (0.103) | -0.058 | (0.104) | -0.013 | (0.027) |
| Rural | 0.405\*\* | (0.202) | 0.394\*\* | (0.202) | 0.365\* | (0.206) |
| Capital District | -0.058 | (0.272) | -0.074 | (0.273) | -0.093 | (0.273) |
| Greater Buenos Aires | 0.364\* | (0.217) | 0.359\* | (0.217) | 0.352 | (0.218) |
| Constant | -1.829\*\*\* | (0.418) | -1.902\*\*\* | (0.433) | -1.402\*\*\* | (0.494) |
| LR χ2 | 223.67\*\*\* |  | 224.09\*\*\* |  | 227.97\*\*\* |  |
| Pseudo R2 | 0.185 |  | 0.185 |  | 0.188 |  |

\*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01 (two-tailed)

Number of observations =1,047, binary logit, standard errors in parentheses

**Web Appendix 3: List of Questions and Codes, 2006 Urban Centers and Rural Areas Omnibus Survey**

*Evaluation of Nestor Kirchner*: A dummy variable coded from the question “now, speaking in general, how would evaluate Nestor Kirchner’s term in office as President?” [1] if approve, [0] if disapprove

*Age*: Age in years.

*Capital District*: A dummy variable that takes the value of 1 if the respondent lives in the Federal District and 0 otherwise.

*Education*: A 10-point variable ranging from [0] for no education to [9] for post-graduate work after college.

*Female*: Dummy variable that takes the value of 1 if the respondent is female and 0 if he is male

*Gran Buenos Aires*: A dummy variable that takes the value of 1 if the respondent lives in Suburbs of Greater Buenos Aires and 0 otherwise.

*Income Sufficient for Household*: A 4-point scale coded from the question “would you say that your family’s monthly income [0] does not cover your needs, [1] is barely enough to cover your needs, [2] permits you to live fairly well but not save, or [3] is enough to live well and save?”

*Informal Sector Employee*: A dummy variable that takes the value of 1 if the primary wage earner does not have a formal written contract with his or her employer and 0 otherwise.

*Sociotropic Economic Evaluation*: A 6-point variable coded from the question “over the previous year, would you say that the Argentine economy has [0] gotten much worse, [1] gotten a little worse, [2] stayed the same and bad, [3] stayed the same and good, [4] gotten a little better, or [5] gotten much better?”