



in partner states' institutions and policies (Atkinson 2006; 2010; Bell, Clay, and Martinez Machain 2017).

This article sets itself apart from previous work by focusing on the microfoundations of popular support, which are critical to understanding broader support for US leadership, military sources of soft power, and the liberal internationalist aims of the United States. By providing development, humanitarian, and disaster aid, the military can alleviate suffering while also strengthening support for the United States within recipient states. However, previous studies have not considered the effect of this type of deployment on mass attitudes within the host country. Some have looked at the determinants of international public opinion by studying broad national or individual-level correlates of attitudes toward countries like the United States (e.g.,

Recent research supports these theoretical claims. Work by [Atkinson \(2006; 2010; 2014\)](#) has explored the ways in which contact between US and foreign military personnel shapes the attitudes of foreign military officers, and policy outcomes in partner countries. Atkinson argues that military exchange and joint training programs act as a socialization process through which ideas, norms, procedures, and best practices diffuse from US military personnel to their foreign counterparts. Her analyses indicate that these programs correlate with political liberalization in domestic institutions within partner countries and improvements in government respect for human rights by the countries that send their officers to study in the United States ([Atkinson 2006; 2010](#)). A recent study by [Bell et al. \(2017\)](#) finds that US military deployments correlate with improved government respect for human rights in countries where US strategic interests are weak. Similarly, [Omelicheva, Carter, and Campbell \(2017\)](#) find US military exchange programs reduce significant hu-

the United States, such a message, if transmitted effectively, could lead to improved perceptions of the United States.

**Humanitarian and Civic-Assistance Deployments, Aid, and Public Opinion**

To consider how humanitarian and civic-assistance deployments can affect mass attitudes, we look to the literature on foreign aid. Many studies focus on how aid can be used to advance the policy interests of the donor state (Fleck and Kilby 2006; Bueno de Mesquita and Smith 2007), or humanitarian goals (Heinrich 2013; Kevlihan, DeRouen, and Biglaiser 2014). Previous work also explores

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**Table 1.** Peru deployment locations and project types

| <i>Region</i> | <i>Province</i> | <i>Year</i> | <i>Project Type</i>                         | <i>Description</i>  |
|---------------|-----------------|-------------|---|---|
| Loreto        | Maynas          | 1998        | NH: N/A                                     | Development work  |
| Lambayeque    | Lambayeque      | 2006        | NH: Medical, Veterinary, and Infrastructure | Constructed three water wells, two clinics, and a school, and provided medical, dental, and veterinary care |
| La Libertad   | Trujillo        | 2007        | CP: Medical                                 | Completed surgeries at local hospital   |
| Ayacucho      | Huamanga        | 2008        | NH: Medical and Infrastructure              | Provided medical and dental care and built schoolhouses, clinics, and a well                                |
| Lima          | Huáura          | 2008        | CP: Medical                                 | Provided medical supplies, including a sonogram machine   |
| Lima          | Barranca        | 2008        | CP: Medical, Veterinary, and Infrastructure | Provided medical, dental, and veterinary care and renovated schools   |
| Piura         | Paita           | 2011        | CP: Medical and Infrastructure              | Provided medical and dental care and repaired schools and water systems                                     |
| Huancavelica  | Huancavelica    | 2012        | NH: Medical                                 | Provided medical and dental care  |
| Huancavelica  | Huaytara        | 2012        | NH: Infrastructure                          | Aided in building a school  |
| Ica           | Pisco           | 2012        | NH: Medical                                 | Provided medical care   |
| Ica           | Chincha         | 2012        | NH: Infrastructure                          | Constructed a park, playground, library, and clinic   |
| Ica           | Ica             | 2012        | NH: Medical                                 | Provided medical care   |
| Lima          | Lima            | 2012        | NH: Infrastructure                          | Constructed an emergency room   |
| Lima          | Lima            | 2012        | NH: Infrastructure                          | Renovated and constructed three school sites  |

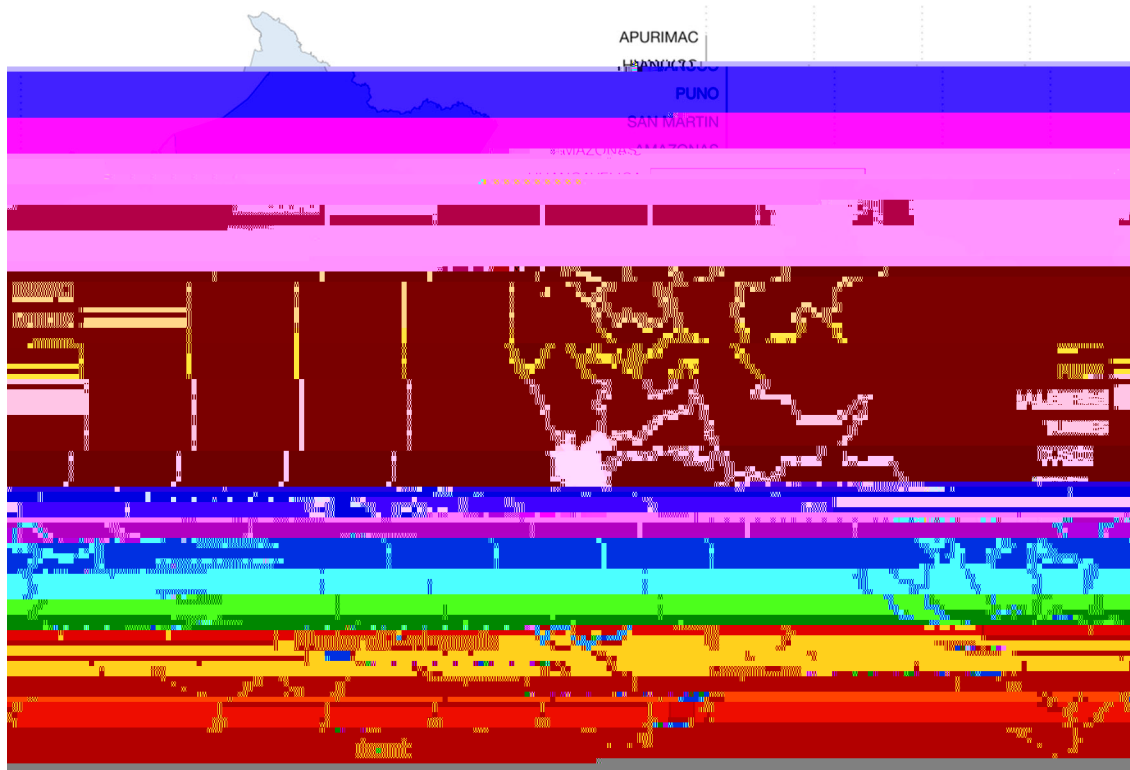
occur on an annual basis throughout Latin America. Individuals may benefit directly from the provision of medical services, or by providing materials consumed by US personnel in building various projects. Their views could also be informed by observing these activities, all of which occur in a peacetime nonoccupation setting. Their most immediate

**Research Design**



(2013)





**Figure 2.** A map of humanitarian and civic-assistance deployments to Peru and a graph of deployment frequency by department. Departments are ordered according to GDP per capita. Apurimac is the poorest; Moquegua is the wealthiest. Departmental GDP data from the Peruvian government includes the Lima Region, Lima Metropolitan Area, and Callao in a single figure, and so Lima in the bar graph represents all three, while the map disaggregates deployments amongst these regions. Shapefiles obtained from *Global Administrative Areas Database (GADM) (2015)*. GDP and population data were obtained from (INEI 2016a) and (INEI 2016b).

been directly affected. For example, they are more likely to talk with family, friends, or acquaintances about US military development projects in the area. They are also more likely to watch or read local news about US military development projects in the area. Hence, whether the exposure is direct or indirect, individuals in regions that have received deployments are more likely to have exposure to US deployments and development projects than are those living in other regions.<sup>18</sup>

Peru has three levels of subnational administrative units: twenty-five regions, divided into 196 provinces, which are further divided into 1,838 districts. We chose to code exposure to US deployments at the level of the region because we have AmericasBarometer survey data for all twenty-five regions in Peru. By comparison, we only have survey data for 61 of 196 Peruvian provinces. As a robustness check, we also code these exposure variables at the level of the province and rerun our analyses to help us address the modifiable areal unit problem associated with using geographic boundaries like department or province to code treatment effects (Wong 2009). These models can be found in the Supplementary Appendix.

We also control for demographic, political, and attitudinal factors that may affect opinions of the United States. Because of space limitations, we discuss these in the Supplementary Appendix.

<sup>18</sup> Table A6 and Figure A5 show the results of models using the count of deployments rather than the dummy variable we use in our primary models. The results of these models reflect our primary results.

### Models and Estimation

The first two dependent variables, *US military trust* and *US government trust*, have multiple discrete ordered categories, so we use ordered logit models in our analysis. However, *perceived US influence in Peru* ranges from  $-6$  to  $6$ , and so we treat it as a continuous variable and estimate these models using OLS.<sup>19</sup>

Table 2 examines Peruvian trust in the US military; Table 3 examines Peruvian trust in the US government; and Table 4 analyzes Peruvian perceptions of the scope and nature (positive or negative) of US influence in Peru. We conduct separate analyses testing the effect of deployments over the whole time period (2006–2012) and troop deployments occurring two, four, and six years prior to the 2014 LAPOP survey.<sup>20</sup>

The results largely support our hypotheses—exposure to humanitarian and civic-assistance deployments has a positive and significant effect on improving Peruvians' opinions of the military, government, and influence. This is true regardless of which measure we use—exposure to US deployments in general or exposure within the last two to six years.

<sup>19</sup> We considered using hierarchical models; however, subnational (regional) data are scarce in Peru. Even controlling for GDP per capita at the regional level poses severe issues. For example, subnational GDP data from Peru's Instituto Nacional de Estadística e Informática (INEI) omits Lima and Callao. To pursue this approach would result in a reduction of our survey sample by over 500 respondents, which is about a third of our sample.

<sup>20</sup> A full table containing control variables is available in the Supplementary Appendix.

**Table 2.** Ordered logit models predicting trust in the US military

|  | <i>Trust in the US military</i> |             |             |              |
|--|---------------------------------|-------------|-------------|--------------|
|  | <i>1A</i>                       | <i>1B</i>   | <i>1C</i>   | <i>1D</i>    |
| <i>Key independent variables</i>       |                                 |             |             |              |
| Exposure to US deployment              | 0.29** (0.13)                   |             |             |              |
| Exposure to US deployment (two years)  |                                 | 0.12 (0.12) |             |              |
| Exposure to US deployment (four years) |                                 |             | 0.19 (0.12) |              |
| Exposure to US deployment (six years)  |                                 |             |             | 0.20* (0.12) |
| <i>BIC</i>                             | 3688.29                         | 3692.35     | 3690.99     | 3690.56      |
| Log likelihood                         | -1771.79                        | -1773.82    | -1773.14    | -1772.93     |
| Observations                           | 983                             | 983         | 983         | 983          |

Two-tailed significance tests used.

\* $p \leq 0.10$ ; \*\* $p \leq 0.05$ .**Table 3.** Ordered logit models predicting trust in the US government

|  | <i>Trust in the US government</i> |              |              |              |
|--|-----------------------------------|--------------|--------------|--------------|
|  | <i>2A</i>                         | <i>2B</i>    | <i>2C</i>    | <i>2D</i>    |
| <i>Key independent variables</i>       |                                   |              |              |              |
| Exposure to US deployment              | 0.44* (0.15)                      |              |              |              |
| Exposure to US deployment (two years)  |                                   | 0.56* (0.14) |              |              |
| Exposure to US deployment (four years) |                                   |              | 0.60* (0.14) |              |
| Exposure to US deployment (six years)  |                                   |              |              | 0.61* (0.14) |
| <i>BIC</i>                             | 2174.48                           | 2166.83      | 2164.51      | 2163.73      |
| Log likelihood                         | -1026.12                          | -1022.29     | -1021.13     | -1020.74     |
| Observations                           | 890                               | 890          | 890          | 890          |

Two-tailed significance tests used.

\* $p \leq 0.01$ .**Table 4.** Linear regression predicting assessment of US influence

|  | <i>Assessment of US influence</i> |              |              |              |
|--|-----------------------------------|--------------|--------------|--------------|
|  | <i>3A</i>                         | <i>3B</i>    | <i>3C</i>    | <i>3D</i>    |
| <i>Key independent variables</i>       |                                   |              |              |              |
| Exposure to US deployment              | 0.47* (0.17)                      |              |              |              |
| Exposure to US deployment (two years)  |                                   | 0.50* (0.16) |              |              |
| Exposure to US deployment (four years) |                                   |              | 0.50* (0.16) |              |
| Exposure to US deployment (six years)  |                                   |              |              | 0.49* (0.16) |
| R <sup>2</sup>                         | 0.10                              | 0.11         | 0.11         | 0.11         |
| Observations                           | 873                               | 873          | 873          | 873          |

Two-tailed significance tests used.

\* $p \leq 0.01$ .

The only models that fall short of statistical significance are 1B and 1D, the two-year and six-year window model of trust in the US military. We find that the effect of the more recent troop deployments on opinions toward the United States is larger than the effect of the variable-coding deployments that have occurred at any point since 2006. Tests indicate that the differences between these coefficients are not statistically significant. However, in comparing BIC scores for models in Tables 2 and 3, we find that the four-year coding window produces a better model fit in each group.<sup>21</sup>



**Figure 3.** Panels A, B, and C show predicted values from models for various time windows in [Tables 2, 3, and 4](#). Predicted w8/CS1cs1scn0.1489Tc5.9278005.9LISSANDRA

mainstream Peruvian society. Education surprisingly has no significant effect on opinions toward the US military and US government and its influence.

Other controls vary more across these models. Left-right political ideology, for example, only has a significant effect in Models 3A and 3B, analyzing perceptions of US influence in Peru; however, this effect is in the expected direction. Right-leaning individuals are more likely to view US influence in Peru as normatively positive and widespread. Yet, support for Ollanta Humala, as measured through satisfaction with his administration, is positive and significantly correlated with opinions of the US government that are more positive. At first, this finding may seem surprising. Humala was the leader of a leftist party, a close ally of Hugo Chávez, and he ran on a relatively radical platform in the 2006 elections. However, he lost in 2006 and, as a result, substantially moderated during the 2011 presidential elections. In office, he distanced himself from Chávez and proved to have a relatively good relationship with the United States overall. Therefore, this finding in the 2014 data makes theoretical sense. Receiving remittances significantly increases the likelihood that Peruvians have higher trust in the US military, but there is no significant effect on opinion toward the US government or its influence. Similarly, individuals with higher satisfaction with infrastructure also have significantly more trust in the US military and government, but we find no significant effect for infrastructure satisfaction on US influence.

### **Discussion and Conclusions**

Individuals from regions that have received humanitarian and civic-assistance deployments are more likely to express favorable attitudes toward the US government and military, and regarding US influence in Peru. While it is important to note that our empirical results show only correlation and not causality, this does support the narrative provided in the interviews we conducted. A primary aim of these deployments is to create positive perceptions of the United States. This makes sense in this context, as these deployments are highly visible, address local needs, and tend to have some degree of continuity (

only for two weeks at a time ([Licina et al. 2013](#)). As research has found that a more consistent aid presence can lead to better perceptions of the donor state, longer or more frequent deployments could generate a substantively larger effect. From a policy standpoint, it makes sense to build continuing relationships with particular communities in order

