**Technical Approach: Introduction**

The presence of US military installations and personnel around the world has been a defining feature of the international order since World War II. The United States has maintained a large military presence for decades in several key locations, such as Germany, Japan, and South Korea. The global footprint of the US military has only expanded over the past 70 years, increasing from 77 countries hosting US military personnel in 1950 to 157 countries in 2016. In this same period, anywhere from 13.6% to 31.4% of all US military personnel were deployed to overseas locations, with an average of 22.2% from 1950–2016.[1] This amounts to millions of US military personnel rotating through hundreds of overseas locations over the course of several decades.

Scholars have debated the effect of these overseas deployments on international order and the structure of life in host countries. Some argue that US forces have contributed to the solidification of alliances (Harkavy 1989), deterrence of rivals (Ikenberry 2004; Harkavy 1989), stabilization of global hot spots (Lake 2009a; Keohane 2005), protection of global commons (Wohlforth 1999; Brooks, Ikenberry, and Wohlforth 2013), and power projection (Davis 2011). Others argue that the maintenance of a large overseas military presence has also been crucial to sustaining the open liberal economic order, through a series of "hierarchical" or "contractual" relationships with host governments (Lake 2009b; Ikenberry 2011). Though their specifics may differ, implicit in these theoretical arguments is some level of public awareness of, and consent to, a US military presence. The presence of US military personnel and installations is often taken for granted in political science research, and the foundations of the issue have been overlooked. In truth, scholars and practitioners know little about how the United States' overseas military presence shapes, and is shaped by, the broader political, economic, and social environment of the host state.

Recent studies have begun to look at the effects of US military deployments on a range of political and economic variables. Research has found that the presence of troops increases foreign direct investment (Biglaiser and DeRouen 2007), social and infrastructural development (Kane 2012), economic growth (Jones and Kane 2012), trade activity (Biglaiser and DeRouen 2009), and respect for human rights (Bell, Clay, and Martinez Machain 2016). Larger deployments from the US military generally correlate with fewer military personnel and lower levels of defense spending by the host state (Martinez Machain and Morgan 2013; Allen, Flynn, and VanDusky-Allen 2016, 2017), and a decreased likelihood of civil war (Braithwaite and Kucik 2017). Lastly, US deployments correlate with increased social spending in some allied states (Allen, Flynn, and VanDusky-Allen 2016) and appear to have a minimal impact on aggregate national crime activity (Allen and Flynn 2013).

While informative, research is limited in important ways. Notably, these studies all focus on macro-level outcomes with country-level data. This presents difficulties in establishing causal linkages between the US military and various sub-national outcomes of interest, like economic growth, anti-US protests, crime, or public opinion. These studies are also unable to explore questions concerning individual attitudes towards the US military presence within a country. However, these questions are often of great importance. If US military activities diminish public support in the host state, then the United States' ability to maintain a large, long-term military presence becomes more difficult. For example, Yeo (2011) argues that protests were key to the decision to remove US military bases from the Philippines. Similarly, the US military's presence in Okinawa is a hotly contested issue among domestic activists (Yeo 2011; Chanlett-Avery and Rinehart 2014). Furthermore, public support for, or opposition to, the continued US presence within a state has implications for a wide range of macro-level policy outcomes, such as military spending, interstate trade, and more. This is particularly important in democratic states, where the US has

[1] These figures were generated using data from Kane (2006) and updated troop deployment data obtained from the Defense Manpower Data Center (2017).

the largest military footprint, and where public attitudes more directly affect policy as compared to autocratic states. Furthermore, the lack of data on the microfoundations of the US military presence prevents further development of macro-level theories of the international order. Without data on public awareness of, and consent to, the US military presence around the world, paradigmatic debates remain mired in untestable theoretical debates.

Despite its importance, there is currently no systematic research on public opinion and attitudes towards the United States' overseas basing. Most work focusing on the domestic effects of US basing has relied on anecdotal evidence (Yeo 2014; Calder 2007). Existing explanations of the effects of US basing on host regimes also focus heavily on anecdotes and theories of local public attitudes towards the US presence (Lake 2013; Cooley 2012). Local support often dictates whether the United States is forced to abandon its foreign installations in response to changes in government, change in public opinion, regime change, or a popular uprising. Broad resistance to US military activities may also constrain foreign leaders' ability to cooperate with the United States in other policy areas. Thus, the support for the US military presence in a state is critical to understanding the sustainability of US relationships with the host state. The lack of high-quality data, at both the national and subnational levels significantly restricts researchers' ability to fully understand the political, economic, and social effects of basing.

This project advances many basic research questions fundamental to social science, with implications for the system, state, and individual-level units of analysis. First, theoretical conceptualizations of the international environment have evolved from the purely anarchic formulations advanced by Realists like Kenneth Waltz (1979), wherein several independent states/units compete with one another for influence and sovereignty is absolute. Scholars like David Lake (1999, 2009) and John Ikenberry (2011) have argued that the international environment, while anarchic in the strict sense that it does not have an overarching supranational government, is characterized by a high degree of stability and order. More specifically, states band together and craft rules to govern their interactions. Akin to earlier hegemonic stability theorists (e.g. Kindleberger 1975; Krasner 1976), both sets of scholars view the United States as taking on the role of system leader, using its hegemonic status to enforce this rules-based order. Lake (2009) specifically argues that other states cede some level of authority over their own foreign policymaking to the United States in exchange for its leadership and the provision of security. Accordingly, the presence of US military forces has been integral to the formation of these authority contracts.

This literature has informed our understanding of how states establish and govern international orders. However, these studies do not fully address the domestic politics of these processes in host states, often only discussing the influence of elite representatives of domestic political coalitions with no concern for mass attitudes themselves. At the same time, political science research has shown that domestic factors often determine states' international interactions (e.g. Bueno de Mesquita et al. 2003). Given that sovereignty is fluid, states can give up, but also reclaim, sovereignty over various issue areas over time. This disconnect leaves many unanswered questions. What determines this variation? How do domestic politics affect which policy areas are subject to sovereignty concessions? What is the influence of domestic politics on relations between the host state and the hegemonic power? How do interactions with a hegemon's military personnel affect host country residents' views of the hegemon's broader foreign policy goals? The focus of these studies is typically on macro-level outcomes in security and economic policy, but what are the domestic implications of the hegemonic power's overseas military presence in the host state?

Ultimately, we shift the focus from exploring how the hegemonic power's provision of security affects the *international order* to exploring its effects on the *domestic orders* of the hegemon's subordinate states. This shift in focus has implications, in turn, for the international order itself. Public opinion of the US presence, along with other indicators of social, political, and economic unrest, indicate the extent to

which the populations of host countries view these contracts as legitimate. For example, the United States has consistently pushed for an open economic order, emphasizing the benefits of free trade and the free flow of capital across borders. According to theories of hierarchy and order-building, these policies hinge on the buy-in of subordinate states. Positive or negative interactions with the US military within a host country may color individuals' attitudes towards US leadership more broadly.

This project also expands on our understanding of alliance relationships and security ties between states—relationships central to the theories discussed above. Organizations like the North Atlantic Treaty (NATO) have been central to the formation and stability of the current international order. Several studies have explored the determinants of alliance formation (e.g. Allen and DiGiuseppe 2013), operations (e.g. Auerswald and Saideman 2014), and endurance (e.g. Leeds 2003). However, we know remarkably little about the domestic politics of alliance agreements. Kreps' (2010) study of public opinion and NATO member troop contributions to Afghanistan is one of the few studies to focus on mass attitudes in the context of alliance relations. Auerswald and Saideman (2014) include some consideration of public opinion, but focuses mostly on political and military leadership in understanding NATO's functioning in Afghanistan. However, these studies' narrow focus on the war in Afghanistan limits their generalizability to other contexts. Troop commitments to the war in Afghanistan represent a tiny proportion of the total interactions between NATO members and do not address interactions between foreign militaries and host country residents. Our study would explore the long-term microfoundations of alliance relationships by examining how the permanent US military presence within various host countries affects, and is affected by, public beliefs and attitudes. Second, we expand our analysis to include countries outside of NATO, helping us to establish more generalizable patterns in public attitudes towards the US military's overseas footprint, and, more generally, public attitudes about the American position atop the global hierarchy. This would also allow us to explore variation in public attitudes within and between alliance groupings.

Our study also explores micro-level political, economic, and social consequences of US basing and deployments. Scholars and activists have long blamed the presence of foreign military deployments for a range of ills, including increased crime (Nelson 1987), sex trafficking and sex work (Jennings 2010; Jennings 2014), drug trafficking (Nelson 1987), environmental pollution (Kajihiro 2009; McCaffrey 2009), civil unrest and protest (Yeo 2011), and traffic accidents (Kim 2004). Alternatively, some scholars have suggested that large foreign military deployments correlate with positive outcomes in economic growth and social development (Kane 2012; Jones and Kane 2012). Though they make strong claims regarding the effects of a large foreign military presence, these studies generally rely on anecdotal accounts and highly aggregated data, which prevents us from identifying generalizable causal links between the US military's presence within a state and these outcomes.

We will move the literature beyond aggregated data and explore the microfoundations of political support for US military presence. In conjunction with our focus on public opinion, we will also collect disaggregated data on 1) anti-US protests, 2) criminal acts involving US military personnel, and 3) overseas military spending by the United States. For example, the deployment of military forces requires vast overseas financial transfers. While these transfers support military installations and personnel, individuals and firms within the host country are often the direct recipients of these funds, as they are hired as a regular civilian workforce in support for the foreign military presence. This means security relationships like troop deployments have a direct effect on the macro economy of the host country. Individuals' attitudes towards the US military may vary according to proximity to US facilities, or with the receipt and/or perception of economic benefits. By collecting disaggregated data on US military spending and the specific location of US military installations in host states we can better understand how overseas military spending affects economic growth at the local and regional levels, as well as how it affects public attitudes towards the United States. While not the intended effect, they nevertheless represent large transfers of wealth from a hegemonic power to a subordinate state. In addition, these

subnational indicators will highlight various forms of political, economic, and social feedback mechanisms that undergird the hierarchical contract.

## A. Technical Narrative: US Basing Worldwide: Political, Economic, and Social Effects

This project consists of four primary research questions that are particularly relevant to understanding the political, economic, and social consequences of the US military's overseas presence: 1) How does the presence of US troops affect the opinions of the US military and the United States in a host state?; 2) What are the determinants of anti-US military base protests and how do such protests diffuse within and across states?; 3) How do US military deployments affect both crime and the perception of crime in host countries?; and 4) How does overseas military spending affect economic outcomes and public attitudes within the host state? We discuss each of these below.

### *A.1 How does the presence of US troops affect the opinions of the US military and the United States in a host state?*

International relations theory has recently begun to explore the notion of hierarchy in the international order (e.g. Lake 2009; Ikenberry 2011; Nieman 2016). Lake (2009) argues that since World War II the United States has established a series of "contractual" relationships with other states. In such cases, the subordinate state cedes some level of authority over its foreign policy to the United States in exchange for the provision of security by the US. Ikenberry (2011) has similarly argued that the United States has established a rules-based "liberal-hegemonic" order wherein the United States assumes a dominant position, but agrees to be bound by many of the same rules as its subordinate states. These theoretical arguments represent advancements in international relations theory, moving beyond simplistic anarchic conceptualizations of the international system that suggest a lack of order.[2] However, these new theoretical arguments leave many of the specific mechanisms undergirding international order unexplored and untested. Similarly, they do not explore the domestic political processes governing these relationships.

The presence of US military forces on foreign soil has been key to the maintenance of these hierarchical relationships and the provision of security to subordinate states. But these deployments, and any accompanying policy concessions, require some level of domestic consent. This is particularly true in democratic states, where public consent exerts a significant influence over political leaders and party policy positions. These countries are important as democratic states like Germany, Italy, and Japan tend to rank among the largest hosts of overseas US military personnel. In such cases, where public opposition to a foreign military presence increases, the cost to host political elites for maintaining these relationships increases. In turn, this may increase the political or economic costs to the United States itself, as it must compensate foreign leaders to offset their political losses from American basing. For example, foreign aid to the host government may increase in response to growing domestic political opposition, as the United States seeks to increase the benefits to host-country politicians for complying with US policy in opposition to domestic interests.[3] Similarly, in the event of a swift regime change in a host state, the level of support for the US presence can predict whether the new host government will be able to cooperate with, or distance itself from, the United States. Even if the new regime is willing to work with the United States, the level of support can predict the amount of concessions that the US may be forced to make to host regimes to satisfy its domestic opposition. Thus, the support for the US military presence is critical to understanding the sustainability of US relationships with host states, along with the economic costs that may come with them.

[2] See Waltz (1979) and Mearsheimer (2001).
[3] See Bueno de Mesquita and Smith (2007) for more on aid-for-policy exchanges.

The popularity of the United States' military presence in a host country may also affect US policy towards that country itself. The promotion of democracy has long been a central goal of US foreign policy. However, the promotion of democracy in the host country may be at odds with US strategic interests if democratization empowers anti-US segments of the host state's population. Existing explanations of the effects of US basing on host regimes focus heavily on the local support for the US presence (Cooley 2008; Lake 2013). According to these theories, local support dictates whether the United States can fully support democratization efforts (McKoy and Miller 2012). Where support for the United States is high, it can side with democratization movements while simultaneously maintaining access to bases in the host state. Low levels of support can force the United States to choose between supporting democracy at the expense of access or resisting democratizations efforts to maintain access.

Data on public attitudes is key to understanding the maintenance of the United States' relationships with subordinate states and the international order more broadly. Despite the importance of public opinion in both practical and theoretical understandings of the United States' global military posture, there is currently no large-N cross-national data with which to analyze how public opinion affects, or is affected by, the United States' overseas military presence. Most work focusing on the domestic effects of US basing has relied on anecdotal evidence rather than large-N survey data (Nelson 1987; Baker 2004; Calder 2007; Yeo 2014). As a part of this project we will conduct public opinion surveys to collect information about individuals' beliefs and attitudes about US military personnel and facilities in the host state. These data will be geocoded according to the respondent's location. This will allow us to combine the public opinion data with other datasets to examine individual attitudes towards the US military and its presence in the respondent's state, but also to examine how proximity and exposure to a US military presence affects individuals' attitudes and behaviors.

*A.2 What are the determinants of anti-US military base protests and how do such protests diffuse within and across states?*

There is a long history of writing by those critical of the United States' global military presence, viewing it as a form of imperialism that carries a variety of negative externalities with it (Lutz 2009). There is qualitative work showing that a US troop presence has increased the demand for sex work, thus leading to increased rates of forced sex-labor and abuse and violence against local sex workers (Lutz 2009; Hohn and Moon 2010; Yeo 2011).[4] Other work suggests US military bases may lead to environmental degradation through pollution of soil and water sources, noise pollution, and degradation of air quality through exhaust fumes (Lutz 2009; Yeo 2011). This same qualitative work also suggests that a US military presence may promote ideas of American cultural superiority, thus undermining local cultures and societal structures (Hohn and Moon 2010). Further, similar to how peacekeepers can create a "peacekeeping economy" in which the troops' significantly larger incomes relative the local population can increase inflation and drive locals to abandon their jobs to work for the peacekeepers, US forces can drive up the local property prices enough such that locals are no longer able to afford their homes (Jennings 2014; Jennings and Boas 2015; Lutz 2009).

Given the numerous negative externalities that are reported to result from the United States' overseas deployment of military forces, it is logical to expect that there should be some resistance from local populations to hosting a US military presence. Resistance to the United States' military presence in a state can take a variety of forms. Some of this resistance can be expressed through mass mobilization and protests against US military installations. Accordingly, tracking protest is an important indicator of political opposition to US military deployments, and US foreign policy more broadly. However, research

[4] Work by two of the proposal team members shows that, at least since the early 2000s, a US troop presence is *not* positively correlated with increases in sex-trafficking in the host state (Bell, Flynn, and Martinez Machain 2017).

on anti-US base protests has tended to come from a qualitative small-N approach, and it focuses on a few specific, highly salient cases, such as Japanese reactions to US bases in Okinawa (see for example, Holbrooke 1991; O'Hanlon 2001; Yeo 2011; Cooley 2012).

We currently have no systematic large-N analyses studies on this subject, and so we lack a clear picture of how common such opposition movements are across the range of US military deployments. This gap in research leaves us with several important questions. For example, when does low support turn into political mobilization and protest? When are protest movements *not* indicative of a larger societal opposition? Do patterns in protests follow patterns in broader public attitudes towards the US military? Which sorts of events or forces trigger mass mobilization against the US military? Are US bases simply used as a location to protest domestic issues, knowing that the proximity to the military installation will draw more media attention?

General theories on the determinants of protest show that the main causes of protest are grievances and deprivation (Gurr 1970), availability of resources (Snow, Soule, and Cress 2005; Murdie & Bhasin 2011; Quaranta 2017), and political opportunities and contextual conditions (Quaranta 2017). These theories highlight possible causal mechanisms linking the presence of US military forces to anti-US protests. For example, some scholars have noted that early US deployments to Germany were characterized by a high degree of income inequality between US personnel and the local population, with US soldiers hiring former professionals to do menial tasks like gardening and housekeeping (Nelson 1987). Other work has suggested that the presence of foreign military personnel worsens crime, like prostitution, sex trafficking, and drug trafficking (e.g. Nelson 1987; Baker 2004; Jennings 2010; Jennings 2014). The negative consequences of foreign military basing—real or perceived—may serve to create shared grievances among the population of the host country, thus driving anti-US protest activity.

Existing theories also show that movements opposed to US military bases may not be completely independent from each other and may engage in some degree of coordination. While anti-base movements have traditionally been domestic movements, recent advances in communications technology and increased globalization have made it possible for them to grow into transnational organizations (Cooley and Nexon 2013). Furthermore, protest groups may learn from others that protesting domestic issues near American bases garners more attention than a purely domestic-focused movement, when they, in fact, have little to do with anti-basing grievances. Thus, it is important to study anti-US base protests in a transnational context that considers this potential interdependence.

With improved data, we can answer these important theoretical questions concerning anti-US base protests. Answering these types of questions will help us to better understand the domestic political environment in which major powers with an overseas military presence face. It will also help us to better differentiate between passing phases and substantive changes in domestic views of the legitimacy of the US military presence. This proposal will add to an existing literature on the diffusion of protest and mobilization in both the domestic and transnational arenas.[5] In addition, it will contribute to existing theories on the determinants of protest and mobilization, which studies the types of populations that are most likely to mobilize and under which circumstances they are most likely to do so, which two of the proposal team members have explored in previous work (Barry et al. 2013; Martinez Machain and Rosenberg 2016).

We will collect events data on anti-US base protests throughout the world (see data section for a more detailed description of this process). These data will be geocoded to identify the locations of various protest events. Geocoding will allow us to use both spatial and network analysis to study the diffusion of these protests and potential transnational connections. Existing work by one of the team members has

[5] See Rasler (1996) as a foundational example on this topic.

already used network analysis to study interconnectedness between base locations; similar network analysis methods could be applied to protest locations (Martinez Machain et al. 2017). Geocoded data will also allow us to study the diffusion of protest at the subnational level, thus leading to a better understanding of how local groups are able to exploit their connections and influence other domestic actors. These data will also allow us to study the effects of public attitudes on protest behavior.

*A.3 How do US military troop deployments affect both crime and the perception of crime in host-countries?*

As discussed above, US military deployments have long been associated with a range of negative externalities. Among these, criminal activities ranging from theft to rape have been central to the discussion of the potential ills of US bases. To date, the research on and coverage of the US troops deployed abroad and the relationship they have with crime is at best, incomplete and, at worst, sensationalized. There are notable accounts of particular acts of crime committed by service members in countries such as Japan and Korea. In particularly politically intense moments, such events have sparked protests and other activities aimed against US deployments (Kirk and Okazawa-Rey, 2000). For instance, the case of the USS Kitty Hawk, where a series of scandals, theft, and other disruptive behavior led to international notoriety (Conant and Miller 1985), or when 80,000 US weapons went missing after the US invasion of Iraq (Dickey et al. 2007). Such events garner both national and international headlines.

These acts and potential trends matter to both host-countries and the US public, but little research has systematically explored the extent to which these crimes are common and many questions remain unanswered. Are US personnel more likely to commit crimes than residents of the host state? Do these tendencies vary across time or geographic context? Theories drawn from the cross-national criminology literature suggest a variety of possible mechanisms that might link US military personnel with crime. The "opportunity model" of crime suggests that the occurrence of crime is a simple function of opportunities for criminal behavior (Kick and LaFree 1985). Others have argued that crime is a result of increasing social dislocation or disruptions to traditional social norms and practices (Durkheim 1964; Bennett 1991). Two of the research team, Allen and Flynn (2013) have explored these issues in the context of US troop deployments. They argue that a large foreign military presence can increase opportunity by introducing a large supply of capital-intensive goods into the host state. Deployments can also increase the allure of criminal activities by reducing the possibility of detection and punishment as potential offenders are removed from home environments and strong social networks.

Allen and Flynn (2013) note that their ability to draw firm conclusions is limited by the highly-aggregated data that they use and by the measurement approach they are forced to adopt. However, their study points to two important outcomes: First, the extent to which particular incidents represent *real trends*; second, the extent to which people *perceive* those crimes as important and a part of a trend.

In the first case, the data are especially lacking. Some studies use country-specific quantitative data, qualitative research, interviews, and case studies regarding the occurrence and magnitude of such crimes, but these data are not systematic and do not contain information about relative frequency compared to other populations (Nelson 1987; Mercier 1987; Moon 1997; Baker 2004). Every country will experience some level of crime. However, no studies compare the crime rate occurrence of US service members to either the host-state population or the US population. For example, Cooley (2012) notes that US service members in Korea have committed 50,000 crimes since their placement in Korea. However, this type of statistic is not meaningful as there is no basis for comparing it to crime rates in Korea more broadly—are US personnel committing crimes at a higher or lower rate than members of the host state's population? Rather, are US personnel more prone to criminal activity than the population around them? Understanding the crime rate in the military as a population and comparing it to various other populations will give better context as to whether crime activity by service members is substantially different from

host-population trends or follows current patterns. Allen and Flynn (2013) have conducted the only systematic large-N research on this subject by looking at whether the presence of US military troops affects aggregate crime rates. While a useful study, it: 1) Does not compare crime rates across populations; 2) It is not able to isolate criminal activity committed by US service personnel; and 3) The study also suffers from ecological inference problems (King 2013).

The second outcome concerns the *perception* of crime committed by service members. High profile crimes involving US service members have sparked discontent by host-state populations and tend to dominate public perceptions, but may not accurately reflect underlying trends in crime involving US military personnel. Still, such events can increase opposition to, and protest against, US military presences and American hierarchical legitimacy more broadly (Kirk and Okazawa-Rey 2000; Baker 2004; Simbulan 2009). Accordingly, media coverage and reporting on crimes play an important part in shaping public perceptions of the US military and its presence. However, we have less information as to what sorts of events shape public opinion and trigger such protest events, or how these variables are affected by media coverage of the US military and crime. Engaging in political action of any kind usually requires an individual to believe the rewards for such action are greater than the costs. This can include everything from voting, protests, riots, and violence (Downs 1957; Schussman and Soule 2005). To understand the likelihood of political action like anti-US protests, it is important to understand whether such action is reflective of broadly-held sentiment against the United States or if the action reflects the views of a minority within the population. It is also important to understand how real and perceived social ills factor into individuals' decisions to engage in political action.

This line of research has both social science and policy import as it seeks to understand the perception of the role and influence of foreign deployed troops as they interact with local populations, where the US has been ineffective at ameliorating the effects of service member criminal activity, whether and how the US presence is exacerbating social ills in other countries, how such crimes affect the public opinion of the US military and the United States, and understanding the threshold at which perceptions of criminal activity can manifest into political action. These issues have implications not only for the structure of life in host states, but also for the microfoundations of the international order.

*A.4 How does overseas military spending affect economic outcomes and public attitudes within the host state?*

One of the data collection components for this project will involve collecting new data on overseas military spending, disaggregating the data at both the national and sub-national levels. There is reason to believe that overseas military spending by the United States has had a profound effect on shaping economic outcomes and public attitudes regarding US foreign policy within the host state, and yet we know remarkably little about the effects of overseas military spending on the host-state environments.

Several studies have focused on various aspects of military spending. We highlight two here. First, some studies center on the determinants of military spending. For example, Fordham and Walker (2005) examine the effect of regime type on states' military spending levels.[6] Flynn (2013) looks at how the composition of the senior military bureaucracy affects US military spending levels by service branch. Allen, Flynn, and VanDusky-Allen (2016, 2017) look at how US military deployments and alliance relationships affect states' military spending. Second, there is also a large body of literature looking at the relationship between military spending and economic growth. Using a variety of timeframes and country samples, these studies have generally found that increased military spending exerts a negative effect on economic growth (for examples see Mintz and Huang 1990; Ward and Davis 1992; Galvin 2003; Mylandis 2008; Dunne and Tian 2015).

[6] Fordham and Walker look specifically at defense spending as a percentage of the state's GDP.

While informative, these studies have a few key limitations. First, there is relatively little work exploring the behavioral and attitudinal consequences of overseas military spending. Most of the work on military spending views it through the lens of defense and international security, or its effects on economic growth. Fewer studies examine how military spending affects, or is affected by, public beliefs and attitudes.[7] Though many studies rightly assert that national defense is a public good, the *production* of national defense is not. Military spending represents a massive transfer of wealth that disproportionately benefits some segments of society more than others. For example, Trubowitz (1998) argues that increasing economic gains from military spending in the South during World War II played a major role in securing the support of Southern Democrats for a more internationalist foreign policy during the Cold War. Even though military spending constitutes approximately 15% of total federal spending, and approximately 49% of discretionary federal spending, we know remarkably little about how shapes it economic and attitudinal outcomes at the national, regional, and local levels—both at home and abroad.[8]

Second, existing studies have relied on aggregate, country-level data on military spending. However, military spending is often not confined to the geographic boundaries of the state. The United States spends a substantial amount of money on national defense, and much of this money flows to overseas locations to maintain bases and fund military operations. Some historians have noted this dynamic, arguing that overseas military spending can have profound macro-economic consequences for the United States, playing a role is pushing the United States off the Gold Standard (Collins 1996). Department of Defense reports indicate that in FY1999 the United States spent over $6.3 billion on payroll and contracts in Germany alone (Defense Manpower Data Center 2017).[9] Despite the importance of overseas spending, research on military spending typically does not distinguish between geographic end-points of military spending.

Third, studies examining how military spending affects economic growth focus on within-country relationships (e.g. does US military spending affect economic growth in the US?). Given that a substantial amount of US military spending and personnel are overseas, they may have profound effects on the host states' economies. Some studies have identified possible positive economic and developmental outcomes related to the presence of the US military. Using country-level data on US military deployments, Kane (2012) finds that the presence of large, long-term US military deployments correlates with positive outcomes across a wide range of social and infrastructural developmental indicators. He finds that countries hosting larger deployments tend to have lower infant mortality rates, longer life expectancy, and more rapid growth in infrastructure. Similarly, Jones and Kane (2012) find a positive correlation between the presence of US military personnel and economic growth rates in the host state. While these findings are compelling, the causal processes linking military deployments to social and economic development remain vague. Kane (2012) suggests three general mechanisms linking US military deployments to growth: 1) promotion of political stability and the prevention of conflict within the host state; 2) promotion of investment through the first mechanism; 3) diffusion of innovation and technologies that promote growth. However, the highly-aggregated data that he uses is not suitable for answering these questions and cannot distinguish which mechanisms might be at work because we cannot directly link the presence and/or activities of foreign military personnel to changes in outcomes of interest. As with the crime data discussed above, identifying the possible effects of the US military presence in a country on outcomes like economic growth using such highly aggregated data requires caution as these relationships may be spurious.

[7] Hartley and Russett (1992) do study the effects of US public opinion on changes in military spending.
[8] Figures represent spending in FY2016. Data obtained from the Budget of the US Government (Office of Management and Budget 2016).
[9] Figure adjusted for inflation to 2017 dollars. FY1999 represents the most recent year for which historical reports are published.

Fourth, this type of highly aggregated data cannot distinguish between the various types and purposes of overseas military spending. The ability to disaggregate spending categories in this way can help us to understand the effects of military spending on the host state's social, political, and economic environment. Military spending goes towards a wide range of ends, including infrastructure, personnel, equipment, and training. The type spending has implications for the host state's economy. Infrastructural spending, for example, is most often steered toward local firms for the sake of efficiency, directly stimulating the local economy and tying the employment of the host population to the US military. In FY1999 the US military paid at least $300 million directly to German contractors (Defense Manpower Data Center 2017).[10] This, in turn, may have extended benefits, affecting the support for US military installations, as well as affecting broader public support within the host state for US foreign policy. Alternative forms of spending, such as on military equipment or training, may not have these sorts of effects. For the most part, political science research has ignored these dynamics—largely due to a reliance on country-year data for military spending and a lack of more detailed information on overseas military spending.

Overseas military deployments and spending have the potential to have important consequences for economic and behavioral outcomes in the host states. Preliminary research using new data by two of the team members shows that even in the case of smaller temporary deployments (e.g. 1,000-1,500 personnel) the US military often transfers millions of dollars to host-state firms, provides medical care to thousands of individuals, and provides veterinary care for thousands of livestock (Flynn, Martinez Machain, and Stoyan 2017). This research also shows that overseas spending can increase positive attitudes towards the United States (Flynn, Martinez Machain, and Stoyan 2017). Overseas military spending is not distributed equally within the entire host state. Regional variation in the concentration of personnel and facilities means that the effects of overseas military spending on public behaviors and attitudes will not be uniform throughout the host state. Collecting more refined data will help us to understand sub-national variation in attitudes towards the United States, the contractual relationship between the US and host state, and the larger international order.

## B. Technical Narrative: Data and Analysis

The lack of high quality, comprehensive data is a substantial obstacle to further theoretical innovation in understanding the role of American military forces around the world and their relationship to the structure of the global order. Below we detail the weaknesses with existing data sources as they pertain to the primary questions we discuss above.

### *B.1 Weaknesses of Existing Data*

One of the central contributions of this project is in the collection of comprehensive, cross-national public opinion data on attitudes towards US military facilities, personnel, and their effects. There is currently *no* cross-national data on public opinion related to the US military presence around the world. Theories that posit a role for public opinion on the influence of US and host-state decision-making (Calder 2010; Cooley 2008a; Lake 2013) have thus far used anecdotal evidence on signaling from opposition groups, the nature of "high profile" events in the host country (such as crimes, military interventions, regime changes), and theoretical logic as the basis of their claims. These studies have noteworthy drawbacks. They are prone to selection bias, as scholars naturally gravitate toward high-profile instances (such as Germany or Japan), along with cases that have seen noteworthy contestation (such as South Korea or

[10] Figure adjusted for inflation to 2017 dollars. FY1999 represents the most recent year for which historical reports are published.

Okinawa). However, political entrepreneurs and activist have incentives to misrepresent both their intentions and the extent of their domestic support to national and international audiences. Focusing on such cases may lead to biased conclusions, as such examples may be drawn from outlier cases rather than basing situations that represent the norm of relationships between US forces abroad and host-state populations.

To the extent that scholars have been able to test claims about the importance of public opinion, they have been forced to use evidence from general surveys of US popularity abroad (Gallup 2017; Pew 2017; Slutsky and Gavra 2017). These types of surveys have several critical problems. First, they are conducted intermittently over time and space. For instance, the Pew "America's Global Image" poll in 2015 measured "views of the US" in 39 countries, but in 2016, Pew conducted the poll in only 15 countries. Four of the countries polled in 2016 were not polled in 2015, and 28 countries were polled in 2015 but not in 2016. This inconsistency creates difficulty in capturing causality and temporal variation, as there is little cross-comparability over both time and space. Furthermore, these surveys do not capture responses along any particularly defined set of countries in a way that is scientifically or policy relevant.

Second, these polls typically focus on selective issues that are currently in the public consciousness, which creates problems for cross-temporal comparability. For instance, in 2015, Pew asked respondents for their views on American military intervention against the Islamic State. Because of the fleeting nature of this issue, the poll's shelf life will be limited to the time when the Islamic State was a prominent public issue. These polls do not measure the more enduring concepts and issues involved with overseas deployments, such as a public's opinions on the US military presence and that presence's influence on their country's security, economics, and politics. Moreover, it is unclear how these responses change in relation to the economic and social standing of specific individuals within the host state. While there are some isolated surveys that focus on perceptions of US forces abroad, these questions are not systematic across time or space. As such, it becomes impossible to compare different activities by the US military across its varied roles.

Third, these public opinion polls do not record subnational locations for the respondents. Questions concerning the impact of US military deployments on issues like economic growth or crime often have a spatial component to them. For example, insofar as US military facilities create increased opportunities for crime, we should expect proximity to US military personnel or facilities to positively correlate with incidents of criminal activity and lower affinity for the US presence. The lack of geocoding in existing data sources means that scholars cannot answer some of these important questions. Using aggregate country-level data to answer questions that require sub-national data presents us with an ecological inference problem in drawing causal connections between the US military and outcomes of interest.[11]

Protest datasets exist in various forms, but none are presently connected to US military deployments and/or facilities abroad. Protests against US behavior and military action are an important phenomenon in terms of both civil-military relations and US relations with other states. We note that, while there are a variety of existing datasets on protest and mobilization used by researchers who study the determinants and effects of protests movement, there is not a single cohesive dataset that provides information on anti-US protests. For example, the commonly-used Databanks International Cross-National Time-Series Data Archive includes a variable for anti-government demonstrations, but explicitly excludes "demonstrations of a distinctly anti-foreign nature" which will encompass the type of anti-US base protests that we are specifically interested in in this study (Wilson 2016).

[11] For example, see Allen and Flynn (2013) for a discussion of the ecological inference problem as it pertains to US military personnel and crime.

Another commonly used dataset on protest activity is the Integrated Data for Even Analysis (IDEA) Project, which gathers its data from news reports (Bond et al. 2003). The IDEA data provides events based on the criteria of who/what/when/where, meaning that they will state who carried out the action, what occurred, when it occurred, and where it occurred. In addition, the IDEA dataset can identify the target of an action. In other words, it will allow us to identify whether a protest action occurred in a state and whether a US military installation was the target of that protest. This dataset can indeed be used to extract information on anti-US base protests, but the process is a cumbersome one that involves a high degree of familiarity with how the dataset is constructed and the commands that should be used to filter the required data. This creates an additional barrier for scholars or practitioners looking to analyze the determinants and effects of anti-US base protests. Another key shortcoming of the IDEA dataset is that it mostly provides information on location at the state, but not subnational level. We note that most of these shortcomings also apply to other datasets, like the GDELT dataset, as well as the Integrated Conflict Early Warning System (ICEWS) dataset, another commonly used events dataset that provides events data on protest.

Another existing dataset is the Social Conflict Analysis Database (SCAD), which does include specific data on protest, as well as the target of the protest (Salehyan et al. 2012). While SCAD covers most of our period of interest (1990-2016), it is limited in its geographic scope, as it covers only Africa, Mexico, Central America, and the Caribbean in its present states. Other scholars use Intranational Political Interactions (IPI) Project data, which also provides event data on protest events, but this dataset is not updated to cover the full period of our interest or all states in the international system (Davis, Moore and Leeds 1998).

Data on crimes involving US military service members are also lacking. There has been little effort to systematically collect and categorize data collected by host states or by the US military itself. The existing research either relies upon estimated numbers from media reports or on anecdotal accounts and interviews. For example, Allen and Flynn (2013) rely on reported crime data that cannot separate crimes committed by US personnel from crimes committed by host-state residents. While useful, these data sources do not allow us to evaluate trends in crime over time or across countries, and they prevent us from answering a variety of questions about US service member and host state civilian relations.

Furthermore, we lack high quality data on *public perceptions* of criminal activities involving US military personnel. Though this distinction may seem small, it is crucial. Policymaking and anti-US activism are often based on highly salient cases that may not reflect actual underlying patterns and trends in crime. Understanding where and when such crimes become highly publicized is just as important as understanding the actual objective patterns in crimes involving US personnel, as these types of events are most likely to affect the relationship between the US and the host state. A single, highly-salient incident occurring against a backdrop of otherwise low crime rates may be more politically relevant in shaping public attitudes than a case where US personnel are regularly involved in criminal acts that are not publicized as widely. This data collection project will focus on collecting both types of crime data—actual incidents of crime and media coverage of crime involving US personnel.

In sum, while there are several existing datasets on protest behavior, none of them focuses on anti-US base protest activity. This means that creating a user-friendly dataset that provides information on these types of protests will not only allow us to answer our research questions, but will also make it significantly easier for other scholars to answer questions related to anti-US base protests. Further, this new dataset will add a subnational geocoded element to the data, which will allow us, as well as other researchers, to study variation and diffusion of protests at the subnational as well as interstate level. Existing data sources, like the IDEA dataset, can be mined for specific protest data pertaining to US military facilities. These reports can also be mined for specific location data, thereby allowing us to position anti-US protests in space relative to US military personnel and facilities.

Likewise, social scientists do not have good data on overseas military expenditures. A substantial portion of US military spending is devoted to sustaining the United States' overseas military presence. Data exists for other types of country-specific financial flows, such as Official Development Aid (ODA), humanitarian aid, arms transfers, and a few other activities, but these data sources are poorly suited for capturing the US military's commitment to a region. Aid, for example, tends to be concentrated in less developed countries and aid flows can fluctuate dramatically from one country/year to another. Further, aid funds can be administered by a wide range of actors, including the US government, recipient government, or a range of private corporations and non-governmental organizations. Alternatively, US military facilities are in a wide range of developed and less developed countries, and require sustained spending over longer periods of time. Furthermore, money is often directed towards several local contractors as building materials and supplies are often locally sourced. US military spending also covers a wide range of countries. Accordingly, overseas military spending may have economic benefits and possible effects on public attitudes that cannot be adequately proxied by alternative measures like foreign aid. Combining troop deployments with spending data will provide a more nuanced picture of the capital investments the US makes in various regions as well as the local and regional implications of such deployments. Troops deployed with higher capital investments will have a larger effect on local social interactions and markets as well as regional trends than troops deployed with low capital investments.

*B.2 Objectives of Data Collection*

Given the weaknesses of existing data, we aim to create a project that fills in major gaps in current research and facilitates deeper empirical investigation on the relationship between deployments and their positive and negative externalities. We will collect a series of high-quality, comparable datasets that will enhance the ability to answer the questions we have posed here, along with other questions throughout the social sciences. These datasets will enhance social scientists' ability to examine the microfoundations of the international order, the nature of the United States' place within it, the sustainability of global American force projection, and the externalities of overseas military expenditures. These datasets will offer reliability, temporal and spatial consistency (and therefore comparability), and a conceptually focused grouping of countries for analysis. To adequately address our proposed research questions, we propose the following objectives for our data collection effort:

We will address:

1. **Public opinion and the US presence:**
   We will create a comprehensive dataset on public attitudes and beliefs of US military activities and installations abroad, at both the national and subnational levels, by fielding geocoded surveys within host countries. Existing work by the proposal team members shows that, in specific settings, a US military presence can have a positive effect on public perceptions of the US in the host state (Flynn, Martinez Machain, and Stoyan 2017). Analogous to the foreign aid literature, we expect that the effects of troop deployments can vary based on several factors, such as the type of deployment and form of exposure (see for example Andrabi and Das 2010, Goldsmith and Horiuchi 2012, Goldsmith, Horiuchi, and Wood 2014, on the effects of foreign aid on public opinion in the recipient state). We plan to conduct our own surveys, which allow us to gather data on perceptions of both the US and the US military, with variation in exposure to US troop deployments (we will survey both individuals exposed to a deployment as well as ones that are not). The survey data will allow us to use the individual as our unit of analysis, with specific information on both the type of exposure to the deployment (if any), as well as opinions on different US institutions. These surveys will also ask for individual characteristics that help determine the level of support for US military activities within the host country

2. **Anti-American protest data:**
   Create a comprehensive geocoded event dataset of protest activities to examine the causes of, and to forecast future instances of, anti-American protests broadly speaking, and anti-US base protests. There is limited large-sample quantitative analysis on the determinants and effects of protests that are carried out specifically in reaction to US military presences. Existing qualitative analysis, which has been discussed in more detail in our theoretical section, shows that anti-US military protests have taken on a transnational nature. To truly explore this, we require information on protest events that spans across both time and space.

   This dataset will be created using events data sources (like the IDEA dataset) as well as news sources (accessed using services such as Lexis-Nexis). The dataset will include information on the location of the protests, the actors involved in them, the characteristics of the protest itself (violent vs. non-violent, for example) and the specific grievances expressed in the protest. This last point is particularly important, as it will be important to distinguish between protests against US policy in general, protests against the particular military installation, and protests unrelated to the US that are carried out near the US military installation to attract media attention. The dataset will allow us to not only understand the determinants of the protests, but also to forecast future protests.

3. **Data on crime and media reports of crime:**
   To test theories concerning the possible negative externalities of US military deployments and facilities, we will collect two datasets pertaining to crimes connected to the US military's presence within the host state. First, we will use publicly available data sources to create a dataset on recorded crimes involving US military personnel between 1990 and 2016. Given that the US military has jurisdiction over its soldiers this information should be available from US government sources.

   Second, using events data sources like the IDEA dataset, we will collect an events dataset on media reports of criminal events involving US military personnel. As noted by Allen and Flynn (2013), there is reason to believe that there is a great disconnect between politically salient and highly visible crimes that are often associated with the US military's presence overseas and actual objective rates of crime. The former exerts a powerful influence on public attitudes towards the US military, and affect the US government's ability to bargain with the host country over the presence of the US military.

   These data will allow us to better assess the factors that 1) drive variation in actual crime involving US military forces; 2) drive variation in media coverage of crime involving US personnel within the host country, and 3) shape public perceptions of the possible negative consequences of the US military's presence within a state.

4. **Overseas military expenditures:**
   We will collect new data on US overseas military expenditures at the national and subnational levels to better understand the economic and social effects of a US military presence within the host state. Previous research by the team members (Flynn, Martinez Machain and Kaye 2016) suggests that development-oriented projects carried out by the US military may have a positive impact on development indicators in the host state, by serving as a form of humanitarian aid. Other research has linked large, long-term US military deployments to higher rates of social and infrastructural development and economic growth (Kane 2012; Jones and Kane 2012). This work has used the troop presence itself as an imperfect proxy for spending. Further, the theoretical mechanisms proposed by these authors require access to more fine-grained data than is currently available. To adequately test these theoretical mechanisms, we will gather data on US overseas military expenditures at the national and local levels.

5. **Interviews with citizens and US military personnel:**

We plan to supplement quantitative data collection efforts with interviews to provide greater context and nuance to public attitudes, along with an analysis of causal mechanisms that produce them. Two of the team members have already engaged in such interviews with US military personnel to better understand the causal linkages between US deployments and positive developmental outcomes (Flynn, Martinez Machain, and Stoyan 2017). Also, Stravers' forthcoming dissertation examines the relationship between American military bases and perceptions of host governments' competence. For instance, in Poland, the lack of a massive influx of American military investment in the first years after the Russian invasion of Ukraine led to the growth of paramilitary defense forces. These "preppers," as they were called, were nationalist militia formed to fend off a sub-conventional Russian invasion. Their formation was the direct result of American basing decisions. This type of development has key implications for the legitimacy of allied governments, the development of armed challenges to them, and the potential for local extremist responses to foreign policy issues. These interviews have provided valuable insights into the causal processes linking some of the key variables of interest, in addition to providing venues for theoretical generation.

6. **Geocoding data:**
   One major goal of our data collection efforts will be to apply geocoding techniques to our public opinion data, crime data, and protest data. For the survey data, we plan to geocode the locations (nearest city/town, so as to retain anonymity of respondent) of individual survey respondents. We also plan to geocode the location of specific events recorded in the crime and protest data as available from the underlying source material. Lastly, we will code the geographic location—both at the national and subnational levels—of overseas military spending. This will allow this research team, as well as future researchers, to merge these data with existing geographic, demographic, political, or other forms of data which are available across geographic locations. Further, the geocoding of survey responses and events data will allow for us, as well as future researchers, to carry out analysis at both the subnational and international level. This is particularly important given existing literature on the effects of US troops deployments on the host state, which hypothesizes that deployments may have effects at the subnational, rather than national level (Flynn, Martinez Machain, and Stoyan 2017).

7. **Establish generalizability and comparability:**
   Since a key problem with existing datasets is their lack of usefulness over time and space, we aim to correct this issue. We will collect information that is useful to our highly focused research questions and applicable to numerous other areas of study. Data will be collected to maximize applicability to comparative studies of domestic issues within host states alone, as well as studies of foreign policy, the international system overall, the sociology of host states, and unanticipated areas of interest.

*B.3 Proposed Datasets*

Having briefly discussed the goals of the data collection effort, here we discuss the details regarding the actual collection and construction of the various datasets.

*Public Opinion Data*

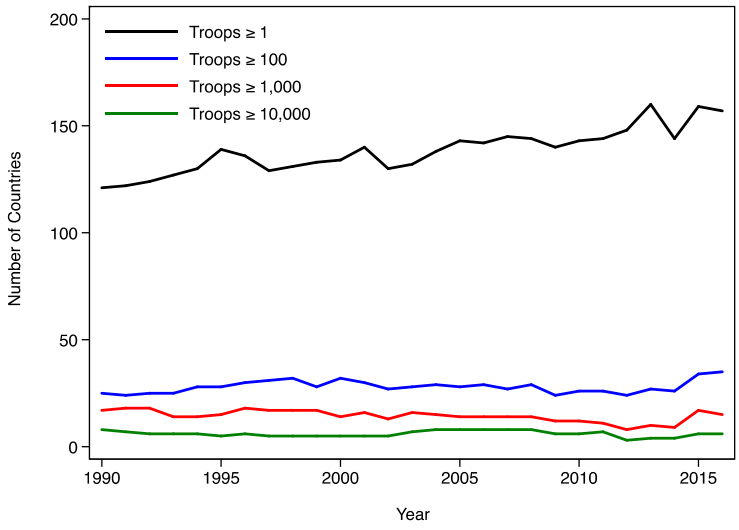
The growing body of literature on the importance of public opinion to the basing relationship shows its increasing importance to understanding many aspects of the US military presence around the world. To understand the validity of current theories, and to push the theoretical envelope further, we must have access to robust data on host state publics' view of US military deployments, installations, and their relationship to host institutions. We will collect these data with these particular goals in mind, which intend to produce answers as to both the cause and effect of basing issues, along with the ability to integrate the information we collect with other datasets to pursue additional questions going forward.

Our public opinion data collection effort has two major branches. The first concerns a more general cross-national public opinion survey, using electronic internet survey methods to be conducted once each year for three years. These methods have been shown to be a cost-effective way of gathering thousands of responses and generating theories of both cross-national and inter-temporal dynamics (Samuels and Zucco 2013).

The second involves three years of more focused surveys on high-density deployment countries, where we will contract with survey firms to conduct nationally representative online surveys. These surveys will be more expensive, but given that these countries have all hosted especially large US military deployments over a long period of time, this approach will allow us to ensure that we capture a more accurate representative sample of the surveyed population and their location. These surveys will also supplement our basic online surveys, doubling the sample size in the six high-density deployment countries and providing us with an opportunity to correct for bias in the online surveys for these same six countries (Bethlehem 2010).

Using these surveys, we will collect information on individuals' attitudes on US military deployments, their potential benefits, costs, and other characteristics, as well as basic demographic information on the individual respondents. We will use these data to test several hypotheses that determine whether interactions with the US military in a social, economic, or security context influence an individual's opinion of the general presence or its effectiveness. We will also collect information on respondents' attitudes toward dynamics within the United States itself, to determine whether political fluctuations in the United States change people's views of American military activities within their country and the nature of the US role in the world. This type of data will be crucial for testing theories of public support and how it grows or declines, in addition to salient policy debates about the ideal size of the military "footprint" in a given base host.

*Figure 1: Number of countries hosting US military personnel according to deployment size thresholds, 1990–2016.*




We begin by identifying countries that have a "significant" American military presence. We define this as countries that have hosted, on average, 100 or more US military personnel over the period of this study (1990-2016). This threshold represents a useful cut point. Despite the breadth of the US military's overseas presence, large deployments of the type found in Germany and Japan are relatively rare. At the opposite end of the spectrum, it is not uncommon for some countries to receive deployments of several

hundred personnel for a short period of time. Using the period average of 100 troops provides an inclusive sample while weeding out cases that have hosted very short-term deployments. Figure 1 shows the number of countries between 1990 and 2016 that host US military personnel at various thresholds.

*Table 1: Countries meeting 100 troop average criteria. Figures rounded to the nearest whole number.*

| | Country | Average Troop Level | | Country | Average Troop Level |
|---|---|---|---|---|---|
| 01. | Canada | 235 | 18. | Norway | 107 |
| 02. | Haiti | 781 | 19. | Iceland | 1,249 |
| 03. | Honduras | 500 | 20. | Djibouti | 505 |
| 04. | Panama | 2,949 | 21. | Turkey | 2,517 |
| 05. | United Kingdom* | 12,420 | 22. | Egypt | 775 |
| 06. | Netherlands | 863 | 23. | Jordan | 153 |
| 07. | Belgium | 1,520 | 24. | Saudi Arabia | 3,006 |
| 08. | Spain | 2,629 | 25. | Kuwait* | 9,626 |
| 09. | Portugal | 1,005 | 26. | Bahrain | 1,655 |
| 10. | Germany* | 71,005 | 27. | Qatar | 650 |
| 11. | Poland | 28 | 28. | UAE | 289 |
| 12. | Hungary | 500 | 29. | Korea South* | 30,228 |
| 13. | Italy* | 11,942 | 30. | Japan* | 42,518 |
| 14. | Macedonia | 178 | 31. | Thailand | 161 |
| 15. | Croatia | 201 | 32. | Singapore | 175 |
| 16. | Bosnia | 1,948 | 33. | Philippines | 1,042 |
| 17. | Greece | 603 | 34. | Australia | 363 |

As can be seen in Figure 1, this threshold eliminates countries that have only hosted a very small number of US personnel, or that have hosted personnel for a very brief period, and yet also allows us a large enough cross-national sample to explore the effects of deployments of varying size and duration. Table 1 contains the list of the countries that fit these criteria. These countries include the obvious base hosts like Germany and Japan, along with less obvious ones like Honduras, Croatia, and Greece. There are two points to note: First, we have chosen to remove two of the countries that meet our criteria—Cuba and Somalia—given the nature of US deployments to these locations, their interactions with host-state populace, and the possible difficulties of conducting survey research on this topic in those locations. In their place, we have chosen to substitute one country: Poland. We added Poland due to its increasing regional relevance and large increases in US deployments in recent years. The second point is to note that we have removed Afghanistan and Iraq from this list, given the ongoing violence in these two states, and the fact that the fundamental types of interactions between the public and US military personnel differs from most of the other countries listed in Table 1. This leaves us with a total of 34 countries to conduct the surveys.

Next, we will build a survey containing questions to capture individuals' attitudes toward the United States and its military presence within the host state. These surveys will be delivered online and will be repeated in each country over the course of the three-year term of this study. We will include questions concerning general attitudes along with questions targeting beliefs about specific issue areas, such as economic issues, crime, etc. We will also incorporate a survey experiment design wherein we include different versions of particular questions containing prompts to further explore individuals' attitudes towards the US military presence and its connection to various economic and social issues. For 15 countries, we are able to recruit respondents via Qualtrics Survey Platform at an efficient $4.60 per respondent. To recruit participants in the remaining countries, we will use targeted Facebook advertisements, a method which has shown to provide a cost-effective means of gathering quality survey responses, and can be targeted to particular regions and localities (Samuels and Zucco 2013).

For the second survey, we will also contract with public opinion research companies to administer nationally representative versions in a subset of six countries. For each of these six countries we will

conduct three yearly rounds of surveys. These countries are noted in Table 1 by the asterisks next to the country name, and include the United Kingdom, Germany, Italy, Kuwait, South Korea, and Japan. We selected these countries because they all host an average of at least 10,000 military personnel over the 1990-2016 period. The figures reported for Kuwait undercounts the US troop presence there because of changes in Department of Defense reporting procedures. For most of the 2003-2011 period, this figure is closer to 45,000 personnel. We have contacted firms capable of conducting nationally representative surveys via online surveying and obtained quotes for this work, which are included in our budget.

Geocoding respondent locations will be particularly useful as this type of analysis has proven invaluable in the few instances where it is available, such as a limited study of subnational public opinion of drone strikes in Pakistan (Shah 2016), because it contradicts the general assertion that publics are uniformly opposed to such strikes (Cavallaro et al. 2012; Columbia Law School 2012). The Shah (2016) study showed that the people closest to strikes were the most supportive, whereas those furthest away were most opposed. Similarly, Andrabi and Das (2005) examined how attitudes towards Westerners were affected by proximity to the activated fault line in the 2005 earthquake in Pakistan. The authors find that individuals closer to the fault line exhibited more positive attitudes, presumably because they were more likely to receive assistance from Western sources. By geocoding the respondents in our survey data, we will can determine whether contact improves or worsens attitudes towards the US military's presence in the host country. In addition, some US military facilities are in remote areas. Our data will assist in an analysis of whether this fosters a sense of suspicion among local populations, or whether a light "footprint" strategy is indeed advisable. This has profound implications for the nature of military activity on foreign shores, along with policy consequences for decisions about right-sizing troop levels and the location of US military installations within the host county.

We will also gather demographic information on respondents, such as income, minority status, religion, and employment status. These variables will help us to understand the determinants of support for, or opposition to, the US military presence within a country. Demographic and cultural factors have played a significant role in debates about the United States and its military presence, with some cultures seen as incompatible with each other or fundamentally opposed in their values (Huntington 1993; Karatnycky 2002; Nye 2004). This demographic data will shed empirical light upon this ongoing debate and be able to distinguish between cultural and demographic factors within the same country to gain explanatory leverage. To provide greater context and to further the explanatory leverage in this area, we will gather information on the support for other prominent countries (most significantly China and Russia). This addition will test the nature of cultural arguments and help determine whether they are more policy oriented than cultural in nature. Among others, our survey experiment will vary whether an outside military force is from the United States or a more "culturally similar" state, whether the forces are representative of the United States or specifically chosen for their "cultural similarity" to the region of deployment. Additionally, we will include a select number of experimental survey questions where we will vary the question structure or the framing to identify contextual and conditional effects related to deployments and perception.

*Public Opinion Data: Pilot Study*

To get a preliminary understanding of the scope of the questions we can answer with a more expansive project, we conducted a limited pilot study of three Latin American countries with a US military presence: Honduras, Colombia, and Peru. In both Colombia and Peru, the US military presence has remained relatively small since 1990, averaging between 50 and 70 US personnel per year. Honduras has a higher average, at close to 500 personnel per year. Relative to the host population these deployments are quite small. If we find notable variation in attitudes and opinions in these cases then we may infer that conducting similar surveys in higher-density deployment countries will be a productive exercise.

In Honduras, we recruited survey respondents via targeted Facebook advertisements which have proven to be a cost-effective means of getting a geographically distributed and reasonably representative sample (Samuels and Zucco 2013). In order to get a representative geographic sample, we created separate advertisements for departments (provinces) in each country and capped the spending on the advertisement as its percentage of the population. For instance, Cortés Department has roughly 19% of the total Honduran population (Heath-Brown 2016), so we limited spending on ads to residents of Cortés to 19% of the available ad budget. This ensured a relatively even geographic distribution of respondents. For Colombia and Peru, Qualtrics recruited electronic survey respondents, and those responses were a close approximation of the national population. For example, roughly 16% of the Colombian population identifies as a racial or ethnic minority (Central Intelligence Agency 2017) and 16% of survey respondents self-identified as a minority. Similar levels of religious affiliation were also identified.

The survey consisted of 50 questions (plus a question to verify that the respondent is not automated) which were a combination of demographic (estimated household income, minority status, gender, age, etc.), exposure to US military (whether one has had a personal encounter with a member of the US military, etc.), opinions on different US institutions and actors (opinion on the US military, opinion on the US government, etc.), and, for comparison, opinions on different Chinese institutions and actors (opinion on the Chinese government, opinion on the Chinese population, etc.). The team members wrote the questions in English and we used the Qualtrics automatic translator, as well as manual translation by one of the proposal team members who is a native Spanish speaker.

With roughly 1,100 respondents across Colombia, Honduras, and Peru, we report some basic descriptive statistics here. Respondents in Colombia and Peru were recruited by Qualtrics, and thus we have a full sample. Recruitment of respondents via online advertising requires longer periods of time for more ad exposure, thus we only received about 10% of the total respondents needed for Honduras at the time of writing. Therefore, our discussion here concerns only Colombia and Peru.

In Colombia, about 66% of people reported opinions ranging from slightly positive to extremely positive, while 16% of respondents rated their opinions of the US military presence as slightly negative to extremely negative. In Peru, a similar 67% reported positive opinions of the American presence, with 13% on the negative side of the spectrum. The remainder in each case (~18% and ~20%, respectively) expressed neutral attitudes.

Some clear patterns emerged that support some of our basic expectations. First, respondents having personal contact with the US military, and those who have received a personal economic benefit from the US military presence, were much more likely to report positive opinions of the overall presence. For instance, in Colombia, 87% of respondents reporting an economic benefit from the US presence report a positive evaluation of the US military presence, as compared to 64% of those who do not report an economic benefit. This represents an increase in positive attitudes of 36% off the baseline. Increases in positive feelings toward the presence carried over to those who did not receive an economic benefit personally, but whose family did. Those in this category were 10% more likely to report positive feelings about the American presence. In Peru, this effect was somewhat attenuated, with a 14.6% increase in positive opinions of the presence with a direct economic benefit to them personally. However, individuals were only about one-third as likely to report negative opinions.

There is a noticeable difference in responses based on gender in Colombia. Men in Colombia are roughly 20% more likely to report positive opinions of the American presence than women. In Peru, men are about 10% more likely to report positive opinions, but the difference is still potentially significant and worthy of further investigation.

*Figure 2*

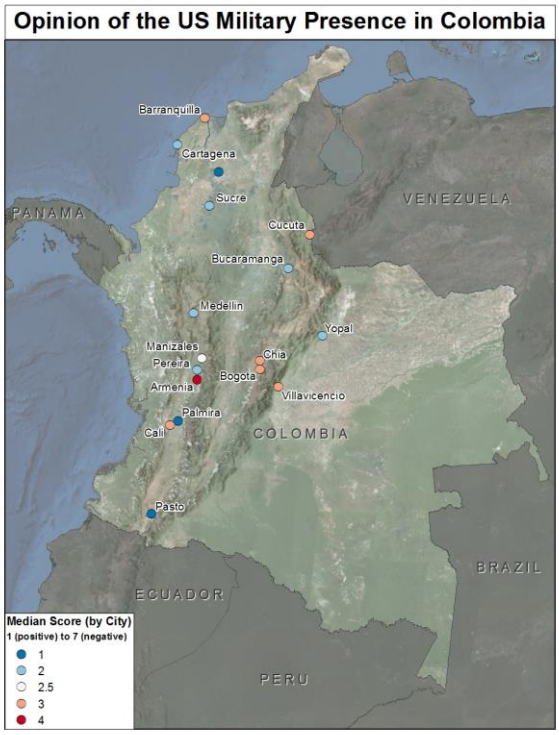



*Figure 3*


*Figures 2 and 3 show significant subnational variation in support for the American presence. Darker red markers indicate more negative evaluations, and darker blue markers indicate more positive evaluations.*[12]

The ideas held by individuals appear to be malleable over time. We asked individuals, "In general, did you support or oppose the arrival of American military forces in [your country]?" Roughly 50% of respondents in Colombia who reported previous neutrality or opposition to arrival of American forces *before* they arrived report current positive opinions of the presence after the arrival. In Peru, the movement is even greater, with about two-thirds of respondents reporting positive opinions after initially opposing the arrival or being neutral towards it. Repeated annual surveys can allow researchers to get a better understanding as to how and why these attitudes evolve.

Lastly, combining the statistical and geographic data reveals some useful information. First, Figure 2 shows that the central region of Colombia has the lowest median levels of support for the US military presence. This region is closest to the Tolemaida Air Base, where there were high-profile incidents of crimes by US personnel against the local population (Karska 2016). This suggests that, in this case, US military facilities may be producing more negative attitudes in the aggregate. However, this region is also the most likely to experience economic benefits from the American presence, which appears to show a positive correlation with improved opinions of the US presence in our initial data. These preliminary findings suggest the possibility that the US presence can have cross-cutting effects on the local population, possibly producing more polarized views among the local populace.

[12] For full resolution map images, visit www.ma-allen.com/minerva

Three resource-related items are clear from our experience in the pilot survey. First, in order to conduct a global survey, we will need significantly more resources than are currently available. The pilot study was conducted in three countries in a single region, and so cross-regional generalizations are not possible. Furthermore, the size of the US deployments in these countries is limited. To generalize our findings, we need the resources to conduct the survey across regions, to capture variation in demographics, along with differential experiences with American military presences.

Second, we are still lacking the additional data required to explore the impact of the US military's presence on the host country. The surveys alone do not provide us with objective data on crime rates, protests, or US military spending in the host state. Respondents' subjective beliefs regarding the political, economic, and social effects of the US military's presence are helpful, but we are interested in part in opinion formation and responsiveness to actual US military activity. Accordingly, objective data are necessary to evaluate the relationship between individuals' perceptions and reality.

Third, conducting more in-depth interviews through our case study phase will allow us to go beyond the purely quantitative analysis that we would carry out using the survey response data. While the survey response data would allow us to establish correlation through quantitative analysis, it does not allow us to establish causation in the observed relationships. Through an interdisciplinary approach that incorporates both quantitative and qualitative methods, we would not only be able to establish robust relationships, but also explore the causal path the relationships follow. This of course requires the funds to travel to the target countries to conduct the in-depth case study interviews.

*Anti-US base Protest Activity*

The next element of our data collection effort involves collecting data on the location of anti-US base protests throughout the world. The unit of analysis on which we will collect the data is the protest event. We will collect data for all countries in the world. This broader focus has two benefits. First, by collecting data on all countries we can use a subset of the data to address more fine-grained questions for the 34 specific countries we identify above. Second, we can aggregate the protest data to the local, regional, or country level to facilitate more general cross-sectional time series structures of analysis. This may prove attractive to other scholars who are not focused on the specific set of countries that we focus on in our public opinion surveys, and will allow them to analyze a wide range of questions that extend beyond the scope of this project.

We will collect event data using the IDEA dataset (Bond et al. 2003) for the period of 1990 to 2016. This period is useful for reasons of both data availability and theoretical motivations. In terms of data availability, our past experiences show that news media articles are more widely available for years in which newspapers began to maintain digitized versions of their articles online, which often begins in the 1990s. From a theoretical point of view, we will have a sample that encompassed both the pre- and post-9/11 years, so that we could study whether there was an effect of 9/11 on the frequency and type of protest. In addition, we will restrict our analysis to the post-Cold War era, as previous work (including work by our proposal team members) has found that the effects of US troop deployments, as well as US motivations in selecting deployment locations, has changed after the Cold War (Bell, Clay, and Martinez Machain 2016). Our proposed dataset will geocode the protest events, also allowing us to study diffusion of protests not just across state borders, but also within a state.

The machine coding of events data will not include specific geocoded locations, and so our graduate student coders will have to parse through each observation to code locations for protest events. Thus, with this new dataset, we will be able to disaggregate anti-US protests within as well as across states. We have been in communication with Virtual Research Associates, a firm specializing in the collection of similar events data. Other researchers have made extensive use of event data collected through this group and so

their reliability in this area is well established (e.g. Murdie and Davis 2012). In our proposal team itself, Martinez Machain has previously engaged in collection of event data from news media sources, as part of an ongoing project which involves gathering event data on political imprisonment.

*Data on crime and media reports of crime*

We will collect two comprehensive datasets on the occurrence of criminal activity involving service members when deployed abroad from 1990-2016. As with the protest data we will collect these data for all available countries in this period, thereby allowing other scholars to use these data to address questions outside the scope of our analysis. The collection effort will consist of two parts.

First, the initial stage will focus on coding reports of such violations from the US military through inquiries and Freedom of Information Act requests. Here we are interested in collecting incidents of criminal activity involving US service personnel as recorded by the US government itself. This will allow us to track several variables, including the type of crime (e.g. assault, homicide, rape, etc.), the number of individuals involved, and any official sanctions of punishments that may have been issued.

Second, we will use event data analysis to isolate any media reports concerning US military personnel and criminal activity within the host country. As discussed by Allen and Flynn (2013), there are several reasons to expect crimes involving US military personnel to not be reported through official channels. These data will allow us to supplement our "official" crime data with unofficial reports, which can play an important part in shaping public perceptions of the US military's presence. We will code the data at the event level, thereby allowing us to aggregate the data as needed for subsequent region-level and country-level analysis. Additionally, the event-level data will include geocoded information for where the incident occurred and how proximate the incident is to US military bases. As with the protest data we will require student coders to go through our observations to geocode specific observations. We will code a few specific types of crimes, including homicides, assaults, property-related crimes such as theft, and sexual assaults/rape.

These data will enable us to look at direct interactions between the foreign population represented by the US military and the local population. With the data we have on deployments, we can discern approximate crime rates for these major categories of crime for the US military personnel and calculate the divergence or convergence between the crime rates for US personnel and the crime rates of the local population, as well as divergence from the crime rate in the United States.

*Overseas military spending*

We will collect a dataset on overseas military spending by the United States from 1990–2016. This data collection effort will consist of two parts. First, we will collect country-year data on overseas military spending. As noted above, a substantial portion of the United States' total military spending is devoted to installations and activities located outside of the United States. These data will give us a clearer picture of how the United States allocates its military budget in a cross-national context and can help us to answer questions pertaining to cross-national variation in public attitudes and behaviors related to US foreign policy. Examples include cross-national variation in public attitudes towards the United States and US foreign policy, and protest behavior directed against US military facilities.

The second stage of the overseas military spending data collection effort will involve collecting military spending for specific locations within each host state. This stage will involve geocoding the locations of specific US military installations within the host state. These data will allow us to explore questions concerning sub-national variation in economic outcomes, as well as public attitudes and behaviors. For example, we can look at variation in sub-national economic growth rates as a function of US military

spending on specific locations. We can also look at whether people who are closer to locations that receive a large amount of US spending exhibit more positive attitudes towards the United States, or perceive the US presence as producing economic benefits for the community.

These data will be coded in constant and current dollar amounts. The information we need is largely available through open source records maintained by the Department of Defense (DOD) or affiliated organizations, such as United States Southern Command, or United States Army South. DOD budget records for certain spending categories also list the specific facilities/locations to which funds are directed, thereby facilitating geocoding. Once we geocode this information we can integrate the sub-national spending data with the protest and public opinion data for spatial analyses.

*Interviews*

Members of the research team will conduct interviews with military officials, civilian officials, and host-state civilians to supplement our quantitative data collection with qualitative information. The planned focus of these interviews will be the data collection topics we discuss above, but we are open to new information and topics that might arise over the course of the interviews. This information can provide greater context and aid in the development of our theoretical arguments and the refinement of causal mechanisms. To recruit interview participants, we will draw on our existing contacts from previous research projects. In total, the research team has interviewed approximately 160 US military and civilian personnel as a part of previous research projects. We would note that our experience suggests the snowball sampling method is effective at recruiting participants within the networks of interest, both inside and outside of government. Though we cannot guarantee any given individual will speak to us, our record indicates success in recruiting a wide range of interview participants. On anonymity, our decisions will be respondent-driven. From past experience, some individuals will not speak with researchers without anonymity, which we are happy to provide in warranted circumstances. Others require prior consent before citation in research, and others give carte blanche permission for use of interview material. IRB approval for this process was obtained in 2015 (UT IRB 2015-01-0028) and lasts until the end of 2018, at which time new IRB approval or continuing approval will be sought.

*B.4 Website, Data Dashboard, and Mapping*

We will publish our data both at the conclusion of the project and when we produce peer reviewed research during the project timeline; we will also develop an online dashboard in which our geocoded information can be explored by users across fields, professions, and interest areas. This will be an easy shortcut way for policy makers, military planners, and academics to get snapshot views of the data we have collected in a way that allows them to combine geocoded datasets and explore the theoretical possibilities of its use. The dashboard will be designed so that users will experience as little "learning curve" as possible to begin exploring the data and its possibilities. This will facilitate the project's ability to generate new theories in a myriad of social scientific arenas, including international relations, comparative politics, public opinion, diplomacy, security studies, and unanticipated research areas. This tool will maximize the potential follow-on benefits to the social science and policy communities.

*B.5 Note on Data Availability and Support Needed for Research*

We would like to specifically note that none of our main data collection efforts require active support from the US military. The only part of the project that could require some cooperation are the supplementary interviews describe in B3. We note that in the past we have been successful in obtaining permission to carry out such interviews, but that the interviews are not essential to the main objectives of the project nor will such access change the funding projections. While we do include letters of support relating to our efforts, all major data collection will be done through publicly available sources. We will

not be conducting the large-N surveys on members of the US military. We will only be surveying members of the population in states that host US troop deployments.

## C. Technical Narrative: Implications for National Defense and Defense Missions

The implications for national defense and defense policy are both direct and indirect. The US military's presence in other countries and its effects on the social, political, and economic environments of the host states have a relationship to nearly all aspects of national defense and defense missions. To keep this section concise, we expand upon four major areas.

First, understanding the factors that shape public attitudes towards the US can help policymakers when making decisions to send military personnel overseas. Notably, different kinds of contact and interaction will produce different perceptions between troops and host-state populations. Is a larger or smaller "footprint" advisable? Is more or less contact with local civilians better for the safety, security, and sustainability of the American presence? What *types* of contact have positive/negative effects? How do civilians in host nations respond to the presence of American forces over time, particularly if they have witnessed societal benefits to that presence, like economic development, administration of health aid, protection from internal and external threats, or democratic support for the host government? Lastly, how does the support for the US installation affect its ability to endure changes to the host government?

Second, having answers to such questions can potentially create advantages in negotiations over status of forces agreements (SOFAs) between the United States and host states. In their early history, most SOFAs were negotiated with an eye towards security provision and the longevity of the US presence there. In the contemporary period, dealing with the positive and negative externalities of basing has become a larger negotiating point between the US and host states as issues about criminal jurisdiction and environmental damage have increased in salience. Understanding public perceptions of US deployments will enable the US to better navigate what kind of deployments facilitate more beneficial feelings about the US military's overseas presence and can help the US to maintain longer deployments. Likewise, contentious US deployments have led to removal of US forces abroad (Cooley 2008a); understanding what provokes political backlash against a military presence, and understanding when protests reflect the general sentiment of a host population, can help US policymakers better understand when US military activities and/or policies need to be adjusted for the sake of maintaining sufficient political support for their continued presence in the host state. Cooley and Nexon (2013) have also noted that movements opposed to US military basing have become transnational in nature, which highlights the need to approach these questions with an eye towards the interplay between multiple countries.

Third, we also examine how contact between troops abroad and foreign populations affects civilian perceptions of the United States. The effects of the US military's overseas activities on host-state public opinion matter not just for the continued presence of US personnel within a given country, but they can affect attitudes towards US foreign policy more broadly. Previous research has shown that public attitudes of citizens in other countries about US foreign policy can affect the actual foreign policy of that country (Goldsmith and Horiuchi 2012). Similarly, other research has shown that direct exposure to aid providers can improve public attitudes towards the donor state (Andrabi and Das 2010). In some cases, exposure to US military personnel engaged in humanitarian and civic assistance missions can improve attitudes towards the United States (Flynn, Martinez Machain, and Stoyan 2017). Accordingly, understanding the potential of US military's overseas activities to influence public opinion, both positively and negatively, can enhance the ability of US policymakers and military officials to create opportunities for cooperation with the host-state government. More positive attitudes towards the United States may also help generate popular support for US coalition-building efforts. We will also collect data on perceptions of alternative

sources of power in terms of regional threats, terrorist groups, and the People's Republic of China to contrast the role of perception of various agents and their activities within the region.

Fourth, a better understanding of the underlying basis of public support for the United States and its military presence within a country can help US policymakers when confronting periods of instability or regime change in a country. If US military activities lead to positive economic outcomes and/or broader levels of public support within a host state, then the US may be insulating itself from political pressure within the host state. This may be particularly useful during periods of instability or regime change where the host state's political leadership might try to use anti-American sentiment to increase their domestic popularity and support.

## D. Technical Narrative: Undergraduate and Graduate Student Training

We are requesting 7,200 hours for four students, over 6 semesters, at 20 hours a week for 15 weeks. Hand coding will focus primarily on coding government documents that cannot be machine coded. Student coders will be responsible for: 1) Coding crime events obtained through government records; 2) Coding data on overseas military spending obtained through government documents; 3) Geocoding protest, crime, and spending data.

Given the three-year project, we will train the students in the initial week of each semester on test examples to make sure their coding is consistent with our standards as well as that of their peers. The way in which this is traditionally done is by having one of the PIs, as well as two or more of the student coders independently code the same cases, using the common codebook as a guide, and then comparing coding. If coding is not the same across coders, we will then discuss differences in coding and consider editing the codebook for clarity to achieve intercoder reliability. We note that all four co-PIs have previous experience with training undergraduate and graduate students in coding procedures.

The co-PIs will prepare the training materials (such as codebooks which outline coding rules for each datasets) prior to each semester to ensure they are up to date with the current coding aspect (such as survey respondents, crime, bases, etc.). We will conduct inter-coder reliability tests in that initial week. Additionally, student coders will report to Stravers their weekly results and he will verify them for integrity. Students will also meet with Allen at BSU and Flynn at KSU at regular intervals and as needed when the students have questions or encounter difficulties.

Given the necessity of hands on day-to-day management of all aspects of the project, including interviewing qualified student workers, data management training, ArcGIS mapping training, personal management of the project data, data analytics, the fielding of surveys, and travel for qualitative survey work, Stravers will be on a pre- and post-doctoral fellowship to manage the day-to-day affairs of the project on a full-time basis. This will ensure the integrity of the data collection, prompt reporting of project and financial data, and generally smooth functioning of communication between project participants. He will conduct interviews for student workers in the fall semester prior to Period 1 of the grant, with individuals in place at the start of Period 1. These students will work on the project through Period 1. Ensuing hiring decisions will prioritize retaining outstanding student workers, with hiring as needed with graduation or loss due to inadequate performance. In our student hiring decisions, we will consider the representation of underrepresented groups in academia.