Rebel Recruitment and Governance: How Mobilization Strategies Shape Rebels' Provision of Social Services

Abstract

How do rebel groups' recruitment strategies shape their provision of social services to civilians? I argue that when groups rely exclusively on material incentives or fully on ideological appeals for recruitment, they are unlikely to provide civilians with services such as healthcare and education. Primarily materially driven groups avoid providing social services because they undermine profits and they lack the ideological foundations and internal cohesion that often promote the offering of these public goods. In contrast, groups that recruit heavily with ideological appeals lack the material resources to provide these services. However, rebels that recruit with a combination of ideological and material appeals have the ideological drive to provide public goods and the material resources required to provide them. Using data on rebel recruitment tactics and social services provision, I find consistent evidence that groups that employ both ideological and material recruitment appeals are more likely to provide social services to civilians than organizations that use just one type of recruitment appeal.

Key Words: Rebel Recruitment; Rebel Governance; Civil Wars

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Data Deposition: The replication data will be made publicly available on the author's website.

How do rebel recruitment strategies affect their provision of social services, such as healthcare and education, to civilians? This question is particularly relevant in context of the puzzle of rebel social services provision, which has been examined in existing literature. Specifically, at least on the surface, the provision of social services is sometimes viewed as puzzling because it often requires rebels to shift extensive resources away from other endeavors, including military operations (e.g., Stewart 2018, 2021).

Furthermore, and particularly relevant to the question of recruitment, groups that provide public goods face a potential free-rider problem, as civilians can benefit from these resources without engaging in the costly behavior required to produce them (Stewart 2018). This means, for instance, that such armed movements are shifting material resources away from recruiting more soldiers with selective incentives, who could contribute to military operations, to providing economic benefits to civilians, including to those who are unlikely recruits or supporters (e.g., Stewart 2018, 2021). Rebels thus face an important choice of deciding how to allocate material incentives between members and non-members.

Scholars have provided a variety of answers to this puzzle, including that social services provision can help groups achieve certain goals (Mampilly 2011; Stewart 2018), attract civilian supporters (Cunningham et al. 2021), foster internal cohesion (Heger and Jung 2017), signal group strength (Wood 2010), and conform to certain ideological principles (Stewart 2021).

However, social services still require extensive resources to provide (Heger and Jung 2017; Huang and Sullivan 2021; Mampilly 2011; Stewart 2020). Indeed, groups with access to natural resources and external patronage are more likely to provide these services (Conrad et al. 2022; Huang and Sullivan 2021). Furthermore, groups vary significantly in their economic and non-material resources (Weinstein 2005, 2007), both of which are important for rebel governance.

Consequently, we have a somewhat incomplete picture of how rebels balance the non-material drivers of social services provision, such as goals and ideology, with the extensive resources required to provide them. This issue is particularly relevant in the context of rebels' mobilization strategies, which center on the allocation of material and non-material resources (Weinstein 2005, 2007). Indeed, one of the resource distribution questions rebels face is how to allocate material resources to recruits versus how to allocate them to civilians who are outside the pools of potential joiners and supporters (e.g., Stewart 2018). Rebel institutions play a central role in their ability to recruit (Arjona 2014, 2016).

Specifically, groups that primarily organize around material incentives tend to have significant economic resources (Weinstein 2005, 2007), however, these same groups often lack the types of ideological foundations that promote rebel governance (Stewart 2021) and are often more abusive towards civilians (Humphreys and Weinstein 2006; Weinstein 2005, 2007). These groups also often suffer from ill-discipline in the ranks (Weinstein 2005, 2007), which undermines the ability of their groups to engage in governance activities (Arjona 2016). Furthermore, rebels who are primarily materially motivated might be unwilling to support efforts by their groups to distribute some of their organizations' material resources to civilians, as they prefer to keep such economic benefits for themselves.

In contrast, groups that lack extensive material resources will instead rely on shared ideological and identity-based connections (Weinstein 2005, 2007). While such social resources promote social services provision (e.g., Stewart 2021), a lack of material resources to organize around can make it difficult to provide these resource-intensive services. Instead, I argue that groups that mobilize recruits with both material and ideological appeals are in the best position to provide social services, as they have the material capacity and ideological will to do so.

To evaluate my argument, I use existing data on the recruitment practices of rebel groups (Soules 2023) and their social services provision (Albert 2022; Stewart 2021). I find robust evidence for my argument that rebel groups are more likely to provide social services to civilians (specifically healthcare and education services) when they combine material and ideological appeals for recruitment, relative to armed movements that rely exclusively on material incentives, or only on ideological appeals.

Of note, I analyze the effects of rebel groups' recruitment practices, not just the general material and social resources they possess, because the intersection of mobilization strategies and social services provision tells us something about how rebel groups choose to distribute their resources.

This paper offers at least two contributions. First, it provides some theoretical nuance to a rich literature that examines how ideological principles and material constraints affect rebels' willingness and ability to provide social services to civilians (e.g., Conrad et al. 2022; Huang and Sullivan 2021; Mampilly 2011; Stewart 2018, 2020, 2021). Specifically, I show that groups that balance material and ideological resources when mobilizing recruits are better positioned to provide these goods to civilians than groups that organize entirely around either ideological or material appeals. The findings of this paper help tie previous arguments together about the ideological (e.g., Stewart 2021) and material (Conrad et al. 2022; Huang and Sullivan 2021) drivers of social services provision. Relatedly, Arjona (2016) breaks important ground by showing that rebel governance helps facilitate recruitment. I build on this work by examining not whether such institutions help with rebel recruitment, but rather, how militant groups' recruitment tactics shape their ability to provide these services.

Second, it provides one of the only, to the best of my knowledge, quantitative analyses linking together rebel recruitment tactics and rebel governance. While prior work has quantitatively examined the effects of ideology and goals (e.g., Asal et al. 2022; Stewart 2018, 2021) and material resources (Asal et al. 2022; Conrad et al. 2022; Huang and Sullivan 2021) on the provision of services to civilians, data that are specific to recruitment have not been previously used. This is relevant given the aforementioned argument that the ways in which rebel groups mobilize around ideological and material resources affect their willingness and capacity to provide social services to civilians.

The rest of the paper will proceed as follows. First, I review existing literature on rebel social services provision and recruitment to better situate my contributions. Second, I develop a theory linking rebels' mobilization strategies to their willingness and capacity to provide social services to large numbers of civilians. Following this, I present the research design and results. I conclude with a discussion of the implications of my findings.

Literature Review

Why Do Rebels Provide Social Services to Civilians?

Rebels' provision of social services to civilians can serve a variety of interrelated functions. Particularly salient are *inclusive* social services, which are public goods provided to civilians who are not likely recruits or direct supporters of the armed movements providing these services (Stewart 2018, 2021). Thus, resources devoted to these activities cannot be spent on recruitment (or other activities). However, there are a variety of other potential benefits.

First, when rebel organizations provide social services to civilians, especially outside those of their immediate support base, it signals their legitimacy and capacity to govern, which helps such groups garner greater domestic and international support (e.g., Mampilly 2011; Stewart 2018). This is especially relevant for secessionist groups, who seek to have their claims of territorial sovereignty recognized by the international community (e.g., Coggins 2011; Mampilly 2011; Stewart 2018). Such boosts to militants' reputation can also help them engage in a variety of other legitimacy-seeking behaviors, including holding popular elections during wartime (Cunningham et al. 2021).

Second, the offering of these goods can help bolster groups' other operations as well. Social service provisions can increase the domestic popularity of armed organizations, which helps them attract and retain recruits (Arjona 2016; Cunningham et al. 2021; Humphreys and Weinstein 2008; Weinstein 2005, 2007). Relatedly, engagement in such state-like behavior can signal rebels' strength, which helps them further gain civilian support (Wood 2010). In addition to increased recruitment capacity, social services can help rebels gain and maintain organizational cohesion (Heger and Jung 2017). Rebels will also provide these services to civilians who aid in groups' economic operations (e.g., the exploitation of natural resources), so they can sustain their civilian labor force (Conrad et al. 2022).

Third, ideological principles can also drive rebel groups to provide social services to large segments of the civilian population. Stewart (2021) posits that revolutionary groups, who are characterized by their goals of fundamentally transforming or upending existing political and/or social structures, are much more likely to engage in extensive governance activities than other types of armed movements, as revolutionary organizations seek to use these institutions to substantively alter society. Szekely (2015) argues that governance activities can help groups previously perceived as being ideological extreme to attract supporters and help people buy into the beliefs and goals of these organizations.

However, despite the benefits associated with offering resources like healthcare and education to civilians, there are also associated costs. Specifically, providing social services to large segments of the civilian population requires expending significant material resources (e.g., Heger and Jung 2017; Huang and Sullivan 2021; Mampilly 2011; Stewart 2018, 2021). Doing so can shift vital resources away from rebels' military operations, reducing their military capacity (Stewart 2020).

Using similar logic, one could also imagine that shifting material resources away from recruitment to providing material benefits to civilians who are unlikely to take up arms, could undermine the ability of groups to use material resources for mobilization (e.g., Weinstein 2005, 2007). Relatedly, as mentioned earlier, shifting material resources away from recruitment to public goods incentivizes free-riding, as civilians do not have to incur the risks associated with taking up arms in order to enjoy the benefits produced by rebel organizations (Stewart 2018). These issues raise questions both about how rebel groups choose to employ resources for recruitment, and more broadly, how resources expended for recruitment affect their capacity and willingness to provide goods like healthcare and education. I turn to these issues now.

How Do Rebel Groups Allocate Resources for Recruitment?

Relevant to the discussion of how rebels allocate resources between activities like recruitment and governance, Weinstein (2005, 2007) argues that the initial resources available to rebel organizations (their "endowments") play a central role in the formation of their recruitment strategies. Weinstein expects that when armed movements have access to significant economic endowments, such as material wealth derived from natural resources or external patronage, they will be more likely to mobilize recruits with material-based recruitment appeals. He posits that

such incentives draw in opportunistic individuals who are interested in obtaining wealth in the short-term, but who lack interest in the long-term political success of their movements. Weinstein labels these types of recruits as "consumers."

Given that these "consumers" tend to be opportunistic and low-commitment, Weinstein expects that they will be detrimental to the long-term success of their groups. Despite the deleterious effects of having materially motivated recruits in their ranks, Weinstein still expects that groups with significant economic resources will rely on such wealth for recruitment because (1) groups that mobilize around economic resources often lack identity and ideological-based ties that could be used for recruitment and (2) they want to rapidly mobilize a large number of recruits to avoid losing out to other armed factions who might also be using material incentives to tap into overlapping recruitment pools.

In contrast, Weinstein posits that when groups do not have large amounts of material endowments, they instead rely on social endowments, or shared ideological and identity-based ties, for recruitment. Rebel leaders in these situations harness these shared connections to make credible commitments about their willingness and ability to provide benefits to recruits in the future. As a result, groups that rely on social endowments for recruitment tend to attract mostly highly committed individuals who are willing to defer short-term gains in exchange for long-term benefits. Weinstein classifies these individuals as "investors."

However, there is substantial variation in the extent to which groups can harness economic and social endowments for recruitment, as groups employ various combinations of material and non-material recruitment appeals (e.g., Herbst 2000; Humphreys and Weinstein 2008; Soules 2023). Scholars expect that variation in these recruitment strategies also helps explain variation in patterns of violence against civilians (Humphreys and Weinstein 2006; Weinstein 2005, 2007).

Specifically, materially driven, opportunistic recruits are more likely to engage in behaviors that contribute to their personal enrichment, even when they are detrimental to their groups, such as violence against civilians and looting. This is because such recruits are not invested in the long-term success of their organizations and are primarily interested in material gain (Humphreys and Weinstein 2006; Weinstein 2005, 2007).

Tying everything together, these dynamics are important for understanding the relationship between rebel recruitment tactics and their provision of social services to civilian non-participants. Specifically, choices in recruitment tactics both affect what resources are available for other activities (including offering social services) and they affect rebel groups' treatment of civilians because of the types of recruits drawn in. For these reasons, I expect that recruitment strategies will have a strong association with the material benefits rebels provide to civilians who they are *not* recruiting. I now turn to discussing how different types of recruitment strategies affect the probability that rebels provide social services.

Mobilization Tactics and Social Services Provision

Some rebel groups rely heavily on material incentives, some mostly on ideological appeals, while others rely on various combinations of the two (Herbst 2000; Humphreys and Weinstein 2008; Soules 2023). Below, I discuss how various combinations of material and ideological recruitment appeals affect the ability and willingness of rebel organizations to provide social services.

Material Incentives

First, I expect that rebel groups that primarily mobilize around material incentives lack the will to provide social services to individuals that they are *not* trying to recruit, despite often having the material resources to do so. Groups that primarily organize around the acquisition of material wealth do not want to undercut their profits by providing costly social services to non-recruits. Again, while their provision can help signal groups' legitimacy, inclusive social services require extensive resources to provide (e.g., Heger and Jung 2017; Mampilly 2011; Stewart 2020).

As noted earlier, militant movements that recruit heavily with material incentives tend to attract opportunistic, uncommitted recruits who are interested in acquiring material benefits in the short-term, but who are not interested in the long-run goals of these organizations (Weinstein 2005, 2007). Consequently, materially driven recruits are more likely to engage in behaviors that help enrich themselves, even when they are detrimental to their groups (Humphreys and Weinstein 2006).

Thus, even though the provision of inclusive social services helps rebels garner more domestic and international legitimacy (Mampilly 2011; Stewart 2018), groups with a high percentage of materially driven recruits will lack the internal support to provide these resources. This is because materially motivated recruits will be more likely to demand that group resources be spent on themselves, rather than civilians. Given that the distribution of material resources among recruits can cause internal strife (Gutiérrez Sanín 2004), I likewise expect that groups will avoid providing inclusive social services when they mobilize around economic benefits because they do not want internal dissent from recruits that would rather have the resources expended on themselves than civilians.

A potential counterargument is that groups that exploit natural resources are more likely to provide social services, such as healthcare, because they need to maintain the support and wellbeing of the civilians whose labor rebels often depend on to profit from natural resources (Conrad et al. 2022). Indeed, as I will explain in more depth later, I expect that groups that mobilize around some material incentives (along with some ideological appeals) will be the best positioned to provide inclusive social services, as they still need some amount of wealth to be able to afford these services. However, I expect that rebels that organize primarily around material incentives, and not a combination of material and ideological appeals, lack the ideological commitment to providing these resources and care less about acquiring legitimacy through the provision of these services.

Furthermore, even if social services help make groups more profitable in the long-run by sustaining the civilian base that helps with these operations (Conrad et al. 2022), groups with a high percentage of materially driven recruits will be less willing to make such long-term investments. Specifically, materially motivated recruits tend to have high discount rates, as they heavily discount potential future benefits, and instead, are interested in short-term gains (Weinstein 2005, 2007).

Relatedly, such groups tend to suffer from high levels of ill-discipline among the rank-and-file, as materially driven recruits are more interested in personal enrichment than the long-term success of their groups (Humphreys and Weinstein 2006; Weinstein 2005, 2007). This lack of discipline shortens the time-horizons of groups, decreasing the probability that they engage in state like behavior, such as providing socials services to civilians (Arjona 2016).

As a result, I expect that groups whose ranks are swelled with opportunistic recruits will not have the internal support necessary to provide inclusive social services, as many cadres will not

be willing to support the investment of resources in ways that prioritize long-term gains over short-term benefits.

Additionally, rebel group ideology plays an important role in many rebel organizations' decisions to engage in a variety of governance activities, including social services provision (e.g., Huang 2016; Mampilly 2011; Mampilly and Stewart 2021; Stewart 2018, 2021). However, militant organizations that mobilize extensively around economic benefits tend to lack social resources, including shared ideological ties (Weinstein 2005, 2007). Thus, primarily materially motivated armed movements lack the ideological base that sometimes drives rebels to provide social services. Overall, groups that mobilize around material incentives tend to lack the types of recruits and ideological beliefs needed to provide social services to broad segments of civilian populations.

Ideological Appeals

However, I also expect that groups that rely primarily on ideological appeals for mobilization will also struggle to provide social services to large numbers of civilians. While rebel organizations do not always use their material resources for recruitment (e.g., Herbst 2000; Soules 2023), rebel groups that primarily mobilize around ideological and identity-based ties tend to lack substantial economic resources (Weinstein 2005, 2007). This is significant given that implementing inclusive social services for large numbers of civilians can require vast resources (e.g., Stewart 2020, 2021). Indeed, regardless of their goals or ideology, groups that lack territorial control are often unable to provide social services to civilians because they lack the necessary resources to do so (Stewart 2018).

Stewart (2020) argues that, at least in some contexts, engaging in extensive governance activities can undermine rebel military capacity by both diverting resources away from fighting and, in some cases, alienating civilians who oppose the specific ways in which armed groups are governing, leading these civilians to mount costly opposition to the rebels. Armed movements with limited material endowments will thus be more likely to allocate their scarce resources to operations that are necessary for their survival, such as purchasing food and weapons. Said differently, groups that primarily mobilize recruits with ideological appeals often have limited material resources, which they must carefully allocate to survive. Relatedly, initially providing social services, but then running out of resources to do so, can also lead to civilian backlash (Stewart 2020).

As a result, groups that depend heavily on social endowments for recruitment might be more hesitant to provide social services, which often require extensive resources, as they lack the material capacity to do so. Stewart (2020) notes that rebel movements in a variety of contexts, including the Rally for Congolese Democracy in the Democratic Republic of the Congo, the National Revolutionary Movement in Uganda, and the Revolutionary Front for an Independent East Timor in Indonesia, all confronted the problem of the joint costs of governance activities and military operations becoming too high. Rebel groups with limited resources might thus allocate their scarce resources towards military operations so that they can continue to survive.

Mixing Ideological and Material Appeals

However, there are many rebel groups that employ combinations of economic and social endowments for recruitment. I expect that these types of organizations are often the best

positioned to provide extensive social services because they strike a more ideal balance among the issues discussed earlier.

On the one hand, these groups have extensive enough material endowments to tap into for recruitment, which increases the probability that they have sufficient economic resources to provide social services. As a result, these groups are better able to absorb the risks associated with engaging in extensive governance activities (i.e., diverting resources away from military operations) (Stewart 2020). On the other hand, such rebel movements also tend to have stronger ideological foundations than groups that recruit exclusively with material incentives. Given that social services are often provided at the behest of certain rebel ideologies (e.g., Stewart 2021), having these foundations makes such rebel groups more likely to provide these resources to broad portions of the civilian population.

While some ideologies promote the provision of inclusive social services more than others (Stewart 2021), I still expect that having moderate amounts of social endowments facilitates the provision of these resources more so than having scarce social endowments. Relatedly, social services provision can help increase support for the ideology of the responsible rebel groups (e.g., Szekely 2015). Groups that organize around ideology will place a higher premium on garnering support for their ideology than groups that organize around economic benefits (Weinstein 2005, 2007). Thus, rebel groups that mobilize recruits with both economic and social endowments are the best positioned to provide inclusive social services because they both have the material resources and ideological motivation to do so. These dimensions are summarized in Table 1.

Material Recruitment No Material Recruitment

Ideological Recruitment	Willing and Able	Willing but Unable		
No Ideological Recruitment	Unwilling but Able	Unwilling and Unable		

Table 1: Recruitment Strategies and Willingness and Ability to Provide Social Services

As **Table 1** denotes, groups that engage in ideological-based recruitment strategies are often willing to provide social services, as they have the normative motivation to do so. Groups that mobilize around material rewards are more likely to have the *ability* to offer such services, as they possess sufficient economic resources. However, willingness and ability are insufficient by themselves. Groups that recruit with a combination of ideological and material appeals are the most likely to provide social services because they have both the *ability and willingness* to do so.

There is also an additional, non-mutually exclusive reason why groups that employ mixed recruitment appeals are the most likely to offer inclusive social services. Specifically, social services provision carries the risk of the free-rider problem, as civilians can receive benefits that the rebel organizations provide without engaging in costly behavior that benefits the rebels (Stewart 2018).

Consequently, groups providing social services as non-recruitment tools must also offer some material benefits as recruitment incentives to avoid being completely overrun by free-riders. Indeed, providing additional material incentives, that can only be acquired through actually joining the group, might help groups mitigate the free-rider problem when they provide social services (e.g., Lichbach 1994, 1995; Popkin 1979; Weinstein 2005, 2007). Again, however, groups that organize almost exclusively around material incentives have little will to offer

inclusive social services. Thus, groups that mobilize around both ideological and material appeals have the ideological motivations and material capacity to employ these services, and better avoid the free-rider problem, which facilitates the provision of inclusive social services.

Take, for example, Hezbollah in Lebanon. Ideological principles (e.g., Islam's emphasis on charity) play a significant role in Hezbollah's decision to provide social services to civilians (Love 2010). However, Hezbollah expends vast resources to run these programs. Indeed, Love (2010) notes that, at least at one point, some estimates placed Hezbollah's spending on socials services to be approximately 50% of its total annual budget. Hezbollah provides salaries and other material benefits to recruits, however, it also mobilizes around a variety of ideological appeals, including religious issues, fighting discrimination against the Shiite population, and the removal of foreign powers (Butler 2011). The group also provides social services to civilians beyond their immediate base of supporters and potential recruits (see data from Stewart 2021). Thus, Hezbollah is a prime example of a group that is willing and able to provide inclusive social services because of the deep social and economic endowments that it mobilizes around.

In Myanmar, the Restoration Council of Shan State (RCSS) (whose armed wing is the Shan State Army – South) mobilized many recruits through Shan nationalism (Jirattikorn 2011). However, the group also pays salaries to all members, including providing raises as they rise through the ranks (Burma News International 2012). The RCSS also established schools, expending significant resources on educational services and implanted curriculum that emphasized Shan language and history (Lall 2020). Stewart (2021) classifies these services as being inclusive of non-supporters. Thus, the provision of social services also served an ideological function, as it helped promote Shan nationalism. The RCSS is another example of a

group who organized around both social and economic resources and was able to provide extensive social services as a result.

In sum, rebel organizations that mobilize entirely around economic benefits often lack the ideological motivation and internal discipline to provide inclusive social services. Militants that recruit only with ideological appeals typically lack the material resources necessary to offer social services to civilians. Instead, groups that tap into both social and economic endowments for recruitment tend to have both the means and motives to provide social services to civilians. This leads me to the central hypothesis of this paper that:

H1: Rebel groups that recruit with a combination of ideological and material appeals will be more likely to provide social services to civilians than those that recruit exclusively with material incentives or exclusively with ideological appeals.

Research Design

Sample and Independent Variable

The core hypothesis is concerned with how rebel organizations' mixtures of ideological and material recruitment appeals affect their provision of social services. The Rebel Appeals and Incentives Dataset (RAID) (Soules 2023) enables me to test the central hypothesis of the paper, as it contains data on the recruitment practices of 232 rebel organizations, taken from the list of actors in the Non-State Actor (NSA) dataset (Cunningham et al. 2013), that were active at least at some point between 1989 and 2011. I use the main version of RAID, which is a cross-sectional dataset (Soules 2023).

Specifically, RAID contains a five-point ordinal indicator capturing the extent to which rebel groups rely on ideological appeals, relative to material incentives, for recruitment. This variable ranges from groups that rely exclusively on material incentives (0) to those that rely only on ideological appeals (4). It also captures groups that rely mostly on material incentives and somewhat on ideological appeals (1), mostly on ideological appeals and somewhat on material incentives (3), and those that employ a relatively even mix of the two (2). Said differently, lower levels capture groups that recruit primarily with material incentives, higher values correspond to greater reliance on ideological appeals, while middling levels capture a relatively even mix of the two (Soules 2023).

To build this variable, Soules (2023) began by constructing qualitative narratives on the recruitment practices of these armed groups, using a variety of sources, including news reports, narratives on these groups available with other datasets, and academic journal articles and books, among a variety of other sources. To translate these narratives to the variable in question, Soules began by identifying the specific types of recruitment appeals groups made. If there was only evidence of the group using material incentives, or only evidence of the rebels employing ideological appeals, then the group was coded as being on the respective far-end of the ordinal scale (fully ideological or fully material).

However, if there was evidence that rebels used both types of recruitment strategies, Soules then looked for evidence of whether one broad category of recruitment appeal was used more systematically and frequently, while the other was employed only occasionally or idiosyncratically. If this was the case, then the group was coded as relying mostly on one type of appeal, and only somewhat on the other. If the evidence suggested that the group employed a

relatively even combination of the two, then it was coded accordingly (i.e., a 2 on the ordinal scale) (Soules 2023).

Again, I expect that groups that employ both ideological and material appeals will be more likely to provide social services than those that rely exclusively on material recruitment incentives or entirely on ideological appeals. To capture this, I include a squared version of RAID's measure of reliance on ideological appeals, as I expect there to be a curvilinear, inverted-U relationship between reliance on ideological appeals (relative to material incentives) and the provision of social services. Said differently, I expect that groups classified in middling levels of this variable (those that provide a mix of ideological and material appeals) will be the most likely to provide social services.

Dependent Variables and Estimation Strategy

To capture social services provision by rebel organizations, I employ data from the Rebel Quasi-State Institutions (QSI) dataset, which contains information on the presence or absence of a large number of rebel governing institutions, including social services, offered by 235 rebel groups that were active between 1945 and 2012 (Albert 2022).

The QSI dataset includes measures of whether groups provide health or educational services. The former captures a variety of services including the provision medicine, clinics, hospitals, and/or doctors, while the latter includes education for basic (e.g., reading and writing) and professional skills. Specifically, using these data, I construct two binary indicators. The first has a lower threshold and captures whether a group provided health *or* educational services at any point during its life, similar to the approach taken by Huang and Sullivan (2021). The second measures whether a group offers health *and* educational services. The latter variable thus

captures more extensive or robust social services provision. Given that these dependent variables are dichotomous, I employ logistic regression analysis for all models. The standard errors are clustered on the rebel group in every model.

These measures build off existing literature on rebel governance, which focuses heavily on the provision of health and educational services (e.g., Conrad et al. 2022; Heger and Jung 2017; Huang and Sullivan 2021; Joo and Sosa 2023; Stewart 2018, 2021). Additionally, healthcare and education represent more direct material benefits to civilians than do other forms of governance, such as rebel diplomacy. This is relevant as I am seeking to explain how recruitment strategies affect rebel groups' decision of how to distribute material benefits to non-participating civilians.

The QSI dataset gathers data only on services provided to individuals outside of the rebel group, and thus, avoids capturing the use of material goods for recruitment (Albert 2022, p. 628). This is important for at least two reasons. First, it avoids this measure being endogenous to the main independent variable, which captures the use of material recruitment incentives. Second, it is theoretically relevant as the central argument of this paper focuses on rebels' provision of social services to civilians who they are *not* trying to directly recruit.

Of note, the RAID has a stronger overlap in its sample with the QSI Dataset than it does with other high-quality datasets on rebel governance, both because of the time period and types of conflicts sampled in these other datasets (Arjona 2016; Heger and Jung 2017; Huang 2016; Stewart 2018, 2021; Wagstaff and Jung 2020). The overlap between RAID and the QSI dataset is still somewhat limited (137 groups). However, there is enough overlap to allow for an exploration of the link between groups' recruitment practices and their employment of social

services.¹ As a robustness check, I use an alternative measure of rebel social services provision (detailed later) from Stewart (2021) (which has less overlap with the sample of groups in RAID). I continue to find consistent support for the core hypothesis, even with this alternative measure.

Control Variables

I also account for a variety of potentially confounding factors. First, natural resource wealth affects both rebel recruitment strategies (Weinstein 2005, 2007) and their provision of social services (Conrad et al. 2022). Thus, using data from the Rebel Contraband Dataset (Walsh et al. 2018), I include a binary indicator of whether a group ever engaged in natural resource exploitation during its lifespan.

Relatedly, groups' ideology, goals, and social networks shape their recruitment strategies (Weinstein 2005, 2007), as well as their decision to provide social services (Mampilly 2011; Stewart 2018, 2021). In response, I include three separate binary indicators that capture these social endowments. The first is a measure of whether a group has a *left-wing ideology*, which is based on data in both the Foundations of Rebel Group Emergence (FORGE) dataset (Braithwaite and Cunningham 2020) and the Women in Armed Rebellion Dataset (WARD) (Wood and Thomas 2017). Using information from WARD and the FORGE and NSA datasets, I also control

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 $^{^1}$ Given that only 137 of the 232 groups in RAID are also in the QSI Dataset, it is important to consider whether the exclusion of these 95 groups from RAID in the analysis could bias the results. To address this, using the full cross-sectional sample of RAID, I built a binary indicator of whether (1) or not (0) a group in RAID was excluded from the main analysis because it was *not* present in the QSI Dataset. Using this variable, I conducted a pairwise correlation test for all 232 groups in RAID between the measure of lack of overlap with the QSI dataset and the five-point ordinal indicator of reliance on ideological appeals. The correlation between the variable was weak (-0.09) and did not achieve traditional levels of statistical significance (p \sim 0.17). Thus, among the organizations in RAID, there is *not* evidence that the group's excluded from the analysis differ significantly on the main independent variable than groups that were included.

for whether a group has *secessionist aims*. Finally, with data from FORGE, I include an indicator of whether a group *mobilizes along ethnic lines*.

General rebel group strength affects rebel recruitment tactics (Weinstein 2005, 2007), as does territorial control (de la Calle and Sánchez-Cuenca 2012). Rebel capacity and territorial control also affect their provision of social services (Stewart 2018, 2020). Thus, I control for two additional variables from the NSA dataset. The first is a five-point ordinal indicator of a *rebel group's strength, relative to the government* it is fighting. The second is a binary indicator of whether it *controls territory*. Additionally, external material support affects both militants' provision of health and social services (Huang and Sullivan 2021) as well as their recruitment tactics (Weinstein 2005, 2007). Thus, using data from Sawyer et al. (2017), I control for a binary indicator of whether a group *received funds from an external actor*. I also control for the *age of the group*, as rebel organizations' recruitment strategies, and ability and willingness to provide social services, likely vary over time.

Finally, I control for both the Polity5 dataset's 21-point measure of *regime type* (Marshall and Gurr 2020) as well as the *logged per capita GDP* (World Bank 2022) of countries in the first year a group enters the dataset to account for the willingness and ability of governments to provide social services that could compete with those of rebel groups. The quality of state governance can serve as a grievance-based mobilizing tool for rebels (Soules 2023) and affects rebels' ability to establish state-like institutions (Arjona 2016). Thus, these factors are important to control for. Summary statistics are listed in **Table 2**.²

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² The summary statistics are based on the 137 groups in RAID for which data on social services is available. Additionally, data on education services is available for 137 groups in RAID, but only 136 for healthcare provision. Specifically, the QSI dataset indicates that Junbish-i Milli-yi Islami provided educational services to civilians but contains no information on whether it provided health services. Thus, this group is coded as 1 for providing educational *or* health services, because there is evidence it provided the former. However, it is coded as missing for the second dependent variable because there was no information about educational services, so it could not be

[Insert Table 2 Here]

Results

[Insert Table 3 Here]

The results for the test of the main hypothesis are presented in **Table 3**. The standard errors are clustered on the rebel group. Across all models, I find a negative and statistically significant association between the squared value of reliance on ideological appeals, relative to material recruitment incentives, and the probability that groups provide social services. The results hold for both the more inclusive measure of whether education *or* health services are provided and the more robust indicator of whether a group offers both to civilians. I also include the plotted marginal effects so that main association of interest can be more accurately interpreted (Brambor et al. 2006). The marginal effects of reliance on ideological appeals from **Models 3 and 6** are presented in **Figures 1 and 2** respectively, with 90% confidence intervals.

determined whether it provided both. This is why there are 137 observations for the measures that captures only whether at least one of these services is provided, but only 136 for the indicator of whether both are provided.

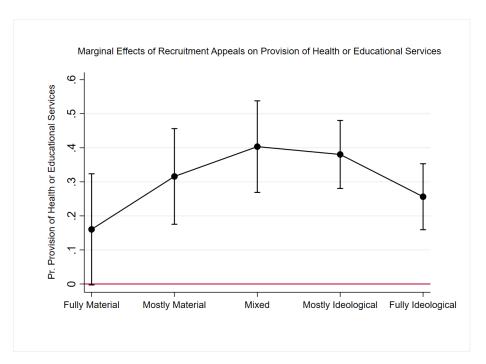


Figure 1: Marginal Effects of Recruitment Appeals on the Probability of Rebel Group Providing Health OR Educational Services

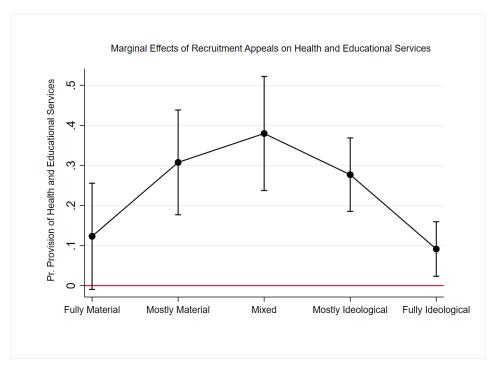


Figure 2: Marginal Effects of Recruitment Appeals on the Probability of Rebel Group Providing Health AND Educational Services

As the marginal effects plots reveal, groups that employ a combination of material or ideological appeals are more likely to offer social services than those that rely on only one of these categories of appeals for recruitment. For instance, groups that rely on about a relatively equal combination of material and ideological appeals are approximately 14% more likely to provide health *or* educational services than groups that rely exclusively on ideological appeals for recruitment.

The substantive effects are even starker for the outcome variable measuring whether a group provides both health *and* educational services. Indeed, rebel organizations that employ an approximately even mix of material and ideological recruitment appeals are about 29% more likely to offer both types of social services than groups that only mobilize around ideological appeals. Thus, the marginal effects plots provide particularly strong evidence for the argument that groups with mixed recruitment repertoires are often the most willing and able to offer social services to civilian non-recruits.

Robustness Checks

I conduct a variety of alternative tests to assess the strength and consistency of the findings. The results are available in the online appendix. First, I consider other measures of the dependent variable. To ensure that the decision to include educational and health services together is not driving the results, I rerun the main models, separating the provision of these two services, also using data from the QSI dataset (Albert 2022). Across a series of logistic regression analyses, I continue to find evidence that rebel groups that employ a combination of ideological and

material incentives are more likely to provide both health and educational services than groups that rely only on one type of recruitment appeal (Appendix Table 1).

As noted earlier, I employed the QSI dataset for the main analysis because its sample had the most overlap with the sample of groups in RAID. However, to ensure that reliance on the QSI dataset is not driving the results, I also employ data from Stewart (2021). Specifically, Stewart measures how extensive insurgent groups' governance activities are. Stewart built a three-point ordinal indicator for both healthcare and education provision, which measure whether the service was not provided (0), provided only to recruits and direct supporters (1), or to civilian populations beyond their civilian base and recruits (2). Stewart added these two measures together to create a five-point ordinal indicator of the extensiveness of rebels' provision of inclusive social services (ranging from 0 to 4).

In a series of ordered logistic regression analyses, I examine the association between the squared value of reliance on ideological recruitment appeals and the ordinal measure of the inclusiveness of social services provision. The same set of control variables are used as were in the main analysis. Consistent with the main results, the squared term is negative and statistically significant in every model (Appendix Table 2). Below, I show a plot of the marginal effects (Figure 3) of reliance on ideological recruitment appeals on the probability that groups score the highest value on Stewart's ordinal scale (a 4, meaning they provide both inclusive health and educational services).

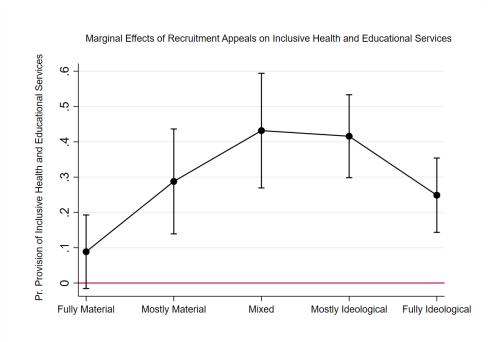


Figure 3: Marginal Effects of Recruitment Appeals on Probability of Rebel Group Providing *Inclusive*Health AND Educational Services

As the marginal effects plot reveals, there is further evidence, when using Stewart's (2021) measure, that rebel groups that rely on a combination of material and ideological appeals are more likely to provide inclusive social services than groups that rely mostly on either material or ideological appeals. For instance, groups that rely exclusively on ideological appeals for recruitment are approximately 18% less likely to provide *inclusive* health *and* educational services to civilians than groups that employ a relatively even mix of ideological and material appeals.

I also consider an alternative operationalization of our main independent variable and rerun the main analysis. Specifically, to account for the ambiguity in the ordinal scale (e.g., distinguish between "mostly material/ideological" and "mixed), I transform the original explanatory variable

into a binary indicator of whether a group makes any combination of both ideological *and* material appeals. Thus, a group takes a value of 1 for this variable if they rely mostly on ideological or material appeals (and somewhat on the other), or if they employ a relatively even mix of the two (values 1, 2, or 3 on the original scale). This variable is coded as 0 for groups that rely either exclusively on material incentives (value of 0 on the original scale) or fully on ideological appeals (value of 4 on the original scale).

For the central hypothesis to be supported, this variable would need to have a positive and statistically significant association with the probability of providing social services, as this would indicate that groups that employ mixed recruitment strategies are more likely to engaged in this behavior. Across all models, I find a positive and statistically significant association between the binary measure of mixed recruitment appeals and both of the main measures of social services provision (Appendix Table 3).

Finally, RAID provides a variable that measures the certainty that Soules (2023) had in classifying the extent to which a group relies on ideological appeals, relative to material incentives, for recruitment. This is a three-point ordinal indicator measuring whether the coding has low, moderate, or high confidence. I rerun the main analysis, excluding groups that obtained the lowest certainty in the coding of the main independent variable (Appendix Table 4). The squared terms remains negative in all models, achieving statistical significance in five of the six models, falling just below the paper's threshold in one ($p \sim 0.102$). Thus, across a variety of alternative tests, I continue to find support for the central hypothesis.

Discussion and Conclusion

The ways in which rebel organizations mobilize recruits affect their willingness and ability to provide social services, such as healthcare and education, to civilians who are unlikely to take up arms. Specifically, I argue that armed movements that recruit with a combination of ideological or material appeals are better positioned to provide social services than groups that rely heavily on just one of these categories of appeals.

Specifically, rebel groups that primarily mobilize around material rewards will lack the internal support necessary to provide these services, as most members of these movements value personal enrichment over treating civilians well and the long-term success of their organizations. Furthermore, these groups often lack the ideological foundations that help promote the provision of social services. However, groups that primarily recruit with ideological appeals will also be less likely to offer services like education and healthcare to civilians because such organizations typically lack the material resources to provide these costly services. However, groups that can draw on both material and ideological resources for recruitment are more likely to provide these services because they have the will and capacity to do so.

Using data on the recruitment practices and social services of rebel organizations across the world, I find robust support for this argument. These findings help further our understanding of how and why rebel groups choose to allocate resources to members versus the general public. It also enhances our understanding of the consequences of rebels' recruitment practices.

There are potential avenues for future research that could build off this paper. First, scholars could examine how rebel recruitment strategies affect an array of other types of rebel governance, such as diplomacy, policing, judicial services, and elections, among a variety of

other state-like endeavors (e.g., Albert 2022; Cunningham et al. 2021; Huang 2016; Loyle and Binningsbø 2018). Second and relatedly, researchers could investigate how the post-conflict behavior of rebel groups that transition to political parties is affected by their initial mobilization strategies (e.g., Acosta 2014; Daly 2021; Manning et al. 2022). Indeed, if rebel recruitment tactics affect their behavior during conflicts (e.g., Weinstein 2005, 2007), then there is a distinct possibility that mobilization tactics affect their behavior after conflicts.

The theory and findings of this study suggest that how rebel groups recruit affects their willingness and capacity to provide material benefits to civilians outside of their immediate recruitment pools. More broadly, it reinforces the notion that it is important to consider how rebel organizations allocate resources to their members and non-members. Rebel groups' recruitment practices and governance activities must be understood in context of each other.

Tables

Table 2: Summary Statistics

Variable	N	Mean	Median	Std. Dev.	Min.	Max.
Reliance on Ideological Appeals	137	2.96	3	1.22	0	4
Provides Healthcare or Education	137	0.36	0	0.48	0	1
Provides Healthcare and Education	136	0.25	0	0.43	0	1
Natural Resource Exploitation	133	0.46	0	0.5	0	1
Left-Wing	137	0.26	0	0.44	0	1
Secessionist Aims	137	0.34	0	0.47	0	1
Ethnic Mobilization	135	0.6	1	0.49	0	1
Territorial Control	135	0.44	0	0.5	0	1
Relative Rebel Strength	137	1.79	2	0.79	1	5
External Funding	135	0.35	0	0.48	0	1
Duration	137	15.53	12	14.09	1	73
Polity2	127	-0.49	0	6.14	-10	10
per capita GDP (Logged)	111	6.16	5.97	1.11	2.55	10.25

Table 3: Effects of Mixing Material and Ideological Recruitment Appeals on Rebel Social Services Provision

	(1)	(2)	(3)	(4)	(5)	(6)	
	Healthcare or Education			Healthcare and Education			
Reliance on Ideological	4. 00 4 dots	4. 2. 4 O.t.	4.4400	4.045%	4 #201	9 4 < 4/2	
Appeals	1.384**	1.218*	1.448*	1.315*	1.523*	2.164*	
D. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(0.648)	(0.696)	(0.844)	(0.691)	(0.833)	(1.130)	
Reliance on Ideological Appeals Squared	-0.320**	-0.292**	-0.315*	-0.350**	-0.428**	-0.568**	
Appears Squared	(0.133)	(0.149)	(0.178)	(0.144)	(0.183)	(0.264)	
Natural Resource	(0.155)	(0.149)	(0.176)	(0.144)	(0.165)	(0.204)	
Exploitation		-0.278	0.169		-0.616	-0.610	
1		(0.451)	(0.608)		(0.586)	(0.859)	
Left-Wing		0.529	0.381		1.025*	0.990	
<i>6</i>		(0.476)	(0.706)		(0.555)	(0.785)	
Secessionist Aims		0.789	1.416*		1.026*	0.993	
		(0.501)	(0.755)		(0.553)	(0.948)	
Ethnic Mobilization		-0.401	-1.016		-0.937*	-1.311*	
		(0.430)	(0.645)		(0.512)	(0.744)	
Territorial Control		1.104**	1.258**		1.702***	1.590**	
		(0.496)	(0.562)		(0.562)	(0.714)	
Relative Rebel Strength		0.0767	-0.0170		-0.368	-0.112	
		(0.319)	(0.454)		(0.336)	(0.536)	
External Funding		0.924*	0.854		1.081*	0.873	
		(0.474)	(0.560)		(0.591)	(0.858)	
Duration		0.0365*	0.00283		0.0108	-0.0120	
		(0.0186)	(0.0305)		(0.0187)	(0.0309)	
Polity2			-0.0120			0.0395	
			(0.0569)			(0.0719)	
per capita GDP (Logged)			-0.441			-0.742**	
			(0.285)			(0.360)	
Constant	-1.396**	-2.863***	-0.208	-1.483**	-2.104**	1.879	
	(0.712)	(0.997)	(2.010)	(0.752)	(0.924)	(2.266)	
Observations	137	128	97	136	127	97	

Standard errors in parentheses

^{***} p<0.01, ** p<0.05, * p<0.1

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Online Appendix

This document contains the appendix for the paper "Rebel Recruitment and Governance: How Mobilization Strategies Shape Rebels' Provision of Social Services." Specifically, this document contains the results for the tests described in the Robustness Checks section of the main paper. To begin, I disaggregate the main dependent variables, which combine data on the provision of health and educational services, into two separate binary indicators. The first is a dichotomous measure of whether the group provided health services and the second is a binary indicator of whether educational services were provided. As with the main analysis, these variables are taken from the Quasi-State Institution (QSI) Dataset (Albert 2022). Across a series of logistic regression analyses, I find evidence that groups are more likely to provide both services when they mobilize around both ideological and material appeals (**Table A1**).

As another alternative measure of the main dependent variable, I employ data from Stewart (2021), who collected data on the provision of inclusive health and education services by rebel groups. Specifically, Stewart built two ordinal measures, ranging from 0-2, which indicated whether a group did not provide the service (0), provided the service only to their immediate group of supporters (1), or also provided the service to civilians who were unlikely supporters or recruits (2). These variables were also combined to create a five-point ordinal indicator (ranging from 0-4) of how inclusive groups' social services provision was. Using these data, I conducted a series of ordered logistic regression analyses. Even with this alternative measure of social services provision, I continue to find support for the central hypothesis (**Table A2**).

Next, I consider an alternative measure of the main independent variable. Specifically, to ensure that that the subjectivity associated with constructing the ordinal scale of reliance on ideological appeals is not driving the results, I transform the measure into a binary indicator of whether a group employs any combination of *both* ideological *and* material appeals (1), or if it makes only one of these broad categories of appeals (0). Across all models, this measure has a positive and statistically significant association with both main dependent variables (**Table A3**). This provides further support for the core hypothesis that groups that combine material and ideological appeals for recruitment are more likely to provide social services to civilians than those that rely either exclusively on ideological appeals or material incentives.

Lastly, RAID contains a three-point ordinal indicator of the degree of confidence (low, moderate, and high) in the coding of the measure of relative reliance on ideological recruitment appeals. I reconduct the main analysis, dropping all observations with the lowest certainty of coding. The squared term for reliance on ideological appeals is negative and statistically significant in five of the six models, dropping just below statistical significance in one of them ($p \sim 0.102$) (**Table A4**). Overall, I continue to find support for the central hypothesis that rebel groups are more likely to provide social services when they mobilize around both ideological and material appeals, rather than just relying on one for recruitment.

Table A1: Effects of Mixing Material and Ideological Recruitment Appeals on Healthcare and Education Provision

	(1)	(2) Healthcare	(3)	(4)	(5) Education	(6)
Reliance on Ideological Appeals	1.205*	1.423*	1.976*	1.443**	1.279*	1.546*
Tremance on recording and rippears	(0.661)	(0.797)	(1.026)	(0.665)	(0.712)	(0.932)
Reliance on Ideological Appeals	(0.001)	(0.757)	(1.020)	(0.002)	(0:712)	(0.752)
Squared	-0.309**	-0.369**	-0.463**	-0.344**	-0.333**	-0.383*
	(0.138)	(0.173)	(0.233)	(0.136)	(0.154)	(0.203)
Natural Resource Exploitation		-0.265	0.290		-0.574	-0.504
		(0.529)	(0.681)		(0.488)	(0.734)
Left-Wing		1.188**	1.405**		0.344	-0.0645
		(0.504)	(0.691)		(0.506)	(0.804)
Secessionist Aims		0.568	0.578		1.156**	1.762**
		(0.562)	(0.937)		(0.503)	(0.784)
Ethnic Mobilization		-0.988*	-1.420*		-0.304	-0.947
		(0.527)	(0.782)		(0.428)	(0.642)
Territorial Control		1.637***	1.519**		1.089**	1.300**
		(0.529)	(0.666)		(0.518)	(0.604)
Relative Rebel Strength		-0.398	-0.304		0.122	0.179
		(0.322)	(0.512)		(0.323)	(0.529)
External Funding		1.297**	1.207*		0.726	0.554
		(0.536)	(0.720)		(0.504)	(0.623)
Duration		0.00605	-0.0190		0.0396**	0.00908
		(0.0189)	(0.0317)		(0.0172)	(0.0301)
Polity2			-0.0433			0.0544
			(0.0582)			(0.0644)
per capita GDP (Logged)			-0.658**			-0.462
			(0.316)			(0.318)
Constant	-1.389*	-2.097**	1.197	-1.465**	-2.852***	-0.0184
	(0.722)	(0.965)	(2.168)	(0.732)	(0.957)	(2.138)
Observations	136	127	97	137	128	97

Robust standard errors in parentheses

^{***} p<0.01, ** p<0.05, * p<0.1

Table A2: Effects of Mixing Material and Ideological Recruitment Appeals on Provision of Inclusive Social Services

	(1)	(2)	(3)	
Reliance on Ideological Appeals	1.316**	1.581**	2.175***	
0 11	(0.644)	(0.710)	(0.808)	
Reliance on Ideological Appeals				
Squared	-0.276**	-0.338**	-0.452**	
	(0.134)	(0.151)	(0.178)	
Natural Resource Exploitation		-0.165	-0.453	
		(0.487)	(0.711)	
Left-Wing		0.703	0.991*	
		(0.555)	(0.590)	
Secessionist Aims		0.130	0.862	
		(0.608)	(0.858)	
Ethnic Mobilization		-0.0793	-0.578	
		(0.455)	(0.642)	
Territorial Control		1.510**	1.640**	
		(0.593)	(0.659)	
Relative Rebel Strength		-0.0217	0.212	
		(0.323)	(0.595)	
External Funding		0.555	0.425	
		(0.540)	(0.601)	
Duration		0.0346**	0.0104	
		(0.0173)	(0.0264)	
Polity2			0.00690	
			(0.0547)	
per capita GDP (Logged)			-0.282	
			(0.259)	
Cutpoint 1	1.035	2.583***	1.544	
	(0.673)	(0.928)	(2.229)	
Cutpoint 2	1.301*	2.976***	1.961	
	(0.680)	(0.937)	(2.243)	
Cutpoint 3	1.649**	3.450***	2.311	
	(0.686)	(0.959)	(2.254)	
Cutpoint 4	1.730**	3.554***	2.456	
	(0.686)	(0.960)	(2.249)	
Observations	110	102	82	

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A3: Effects of Mixing Material and Ideological Recruitment Appeals on Rebel Social Services Provision (Binary IV)

	(1)	(2)	(3)	(4)	(5)	(6)	
	Health or Education			Health and Education			
Mixed Recruitment Appeals	0.885**	0.928**	0.949*	1.273***	1.686***	2.146***	
**	(0.366)	(0.448)	(0.557)	(0.429)	(0.578)	(0.827)	
Natural Resource Exploitation		-0.308	0.0544		-0.623	-0.562	
-		(0.448)	(0.592)		(0.585)	(0.810)	
Left-Wing		0.494	0.346		1.007*	1.035	
		(0.469)	(0.677)		(0.547)	(0.776)	
Secessionist Aims		0.814*	1.504**		0.964*	0.989	
		(0.487)	(0.744)		(0.556)	(0.945)	
Ethnic Mobilization		-0.399	-0.998		-0.941*	-1.321*	
		(0.431)	(0.616)		(0.528)	(0.721)	
Territorial Control		1.077**	1.210**		1.701***	1.614**	
		(0.485)	(0.545)		(0.547)	(0.717)	
Relative Rebel Strength		0.0505	-0.0463		-0.368	-0.137	
		(0.322)	(0.446)		(0.348)	(0.560)	
External Funding		0.962**	0.913		1.110*	0.985	
		(0.473)	(0.561)		(0.599)	(0.860)	
Duration		0.0379**	0.00854		0.0101	-0.0133	
		(0.0187)	(0.0269)		(0.0186)	(0.0296)	
Polity2			-0.0154			0.0360	
			(0.0555)			(0.0712)	
per capita GDP (Logged)			-0.416			-0.694**	
			(0.268)			(0.343)	
Constant	-1.007***	-2.667***	0.207	-1.808***	-2.778***	1.073	
	(0.269)	(0.775)	(2.076)	(0.342)	(0.703)	(2.259)	
Observations	137	128	97	136	127	97	

Robust standard errors in parentheses

^{***} p<0.01, ** p<0.05, * p<0.1

Table A4: Effects of Mixing Material and Ideological Recruitment Appeals on Rebel Social Services Provision (Excluding Low Certainty Observations)

	(1)	(2) Healthcare	(3)	(4)	(5) Education	(6)
Reliance on Ideological Appeals	1.228*	1.125	1.498*	1.156*	1.416*	2.097*
Tronunce on 100010great 14ppens	(0.629)	(0.689)	(0.908)	(0.667)	(0.833)	(1.194)
Reliance on Ideological Appeals	(0.02)	(0.00))	(0.500)	(0.007)	(0.022)	(111)
Squared	-0.285**	-0.267*	-0.313	-0.317**	-0.402**	-0.544*
	(0.130)	(0.147)	(0.191)	(0.142)	(0.185)	(0.277)
Natural Resource Exploitation		-0.370	0.226		-0.766	-0.640
		(0.453)	(0.636)		(0.602)	(0.861)
Left-Wing		0.611	0.707		1.172**	1.262
		(0.477)	(0.682)		(0.573)	(0.831)
Secessionist Aims		0.833*	1.867**		1.105**	1.390
		(0.504)	(0.807)		(0.562)	(1.135)
Ethnic Mobilization		-0.534	-1.376**		-1.128**	-1.670**
		(0.437)	(0.677)		(0.531)	(0.843)
Territorial Control		1.135**	1.510**		1.741***	1.788**
		(0.509)	(0.617)		(0.580)	(0.790)
Relative Rebel Strength		0.0805	0.0192		-0.351	-0.0974
		(0.318)	(0.457)		(0.339)	(0.529)
External Funding		0.919*	0.707		1.134*	0.825
		(0.479)	(0.563)		(0.607)	(0.808)
Duration		0.0335*	-0.0136		0.00866	-0.0236
		(0.0184)	(0.0333)		(0.0192)	(0.0357)
Polity2			-0.0296			0.0324
			(0.0581)			(0.0734)
per capita GDP (Logged)			-0.486			-0.724*
			(0.297)			(0.406)
Constant	-1.245*	-2.708***	0.00243	-1.331*	-1.979**	1.830
	(0.684)	(0.985)	(1.960)	(0.719)	(0.944)	(2.398)
Observations	131	123	92	130	122	92

Robust standard errors in parentheses

^{***} p<0.01, ** p<0.05, * p<0.1