

Taming Rebellion in South America, 1830-1929

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Abstract

South America was plagued by internal conflict during the 19th century that destabilized the region's economies and political systems. At the beginning of the 20th century, however, levels of political violence throughout the region declined dramatically. Existing scholarship has paid surprisingly little attention to this historic transformation in part because of the absence of comprehensive data on revolts. Drawing on the work of historians, we create a comprehensive dataset on revolts in ten South American countries from 1830 to 1929, and we develop an original typology of revolts based on the origins of the rebel leaders. We find that revolts from outside the state apparatus declined dramatically during this period, while revolts from inside the state, such as coups, did not. We hypothesize that increases in the size and professionalization of the military, which were driven by the export boom and the threat of international conflict, are fundamental to explain these regional patterns. We test the observational implications of our theory through historical narratives and a series of regression analyses on cross-national time-series data.

Keywords

Civil wars, coups, Latin America, 19th century, military professionalization

Nineteenth-century South America was afire with rebellion. The French political scientist Alexis de Tocqueville opined in 1835 that “the turmoil of revolution is [...] the most natural state of the South American Spaniards at the present time”.¹ Two decades thereafter, Bolivian President Manuel Belzú complained about “continuous revolutions, revolutions in the south, revolutions in the north; hatched by my enemies, directed by my friends, incubated in my house, exploding everywhere around me...”² Although not all individual revolts escalated to full-out civil war, they collectively killed hundreds of thousands, generated constant political instability, and devastated economies.

By the turn of the century, however, South American countries began to experience significantly fewer revolts. Indeed, the number of revolts dropped from an average of more than 45 per decade in the 19th century to less than 21 per decade between 1900-29. Revolts did not decline in all countries of the region: Rebellions continued to occur frequently in Ecuador and Paraguay during the early 20th century. Nor did all types of revolts diminish at the same rate. Whereas the number of revolts coming from outside the state apparatus declined dramatically, the frequency of military coups remained relatively unchanged. Outsider revolts were four times as frequent as military coups at the beginning of the nineteenth century, but the two types of revolts occurred at roughly the same rate in the 1920s, owing to the sharp decline of the former. In addition, the outsider revolts that did occur in the first few decades of the 20th century tended to be smaller, shorter, and less violent than they had been in the 19th century.

¹ Alexis de Tocqueville, *Democracy in America* (New York: Knopf, [1835] 1945), 251.

² By Aranzaes’ calculations, Bolivia had 185 revolts, mutinies, and coups between 1826 and 1903. See Nicanor Aranzaes, *Las Revoluciones de Bolivia* [Revolutions of Bolivia] (La Paz: Casa Editora Talleres Gráficos "La Prensa", 1918).

What led to this dramatic region-wide decline in revolts? Why did some types of rebellions diminish more quickly than others, and why did a couple of states fail to conform to the regional pattern?

These questions are not just of historical interest. The decline of revolts in the region had important long-term implications for development and democracy in the region. To begin with, the dramatic reduction in rebellions provided the political stability necessary for the sustained economic and social progress that took place over the course of the 20th century. In addition, the decline in revolts helped strengthen constitutional rule and usher in an era of semi-democracy in some South American countries. To be sure, most South American countries remained authoritarian during this period and even those countries that democratized did not become fully democratic. Nevertheless, the decline in revolts laid the groundwork for the first wave of democratization in the region. In Argentina, Chile, Colombia, and Uruguay opposition parties abandoned the armed struggle and began to focus on the electoral path to power, pushing for democratic reforms that would level the electoral playing field.³ Although military coups interrupted democratic rule in these countries in the decades that followed, the democratic experiences that they enjoyed during this period proved meaningful, helping to build enduring democratic institutions and practices.

Existing scholarship has paid surprisingly little attention to the decline of revolts in South America in part because of the absence of comprehensive data on the rebellions. Although historians have provided insightful analyses of the causes and consequences of revolts in individual countries, neither they, nor social scientists, have focused on cataloguing or explaining the decline

³ See Raúl L. Madrid, "The Partisan Path to Democracy: Argentina in Comparative Perspective," *Comparative Political Studies* 52, no. 10 (2019); Raúl L. Madrid, "The Origins of Democracy in Latin America: Partisan Competition and Military Professionalization," (unpublished book manuscript, 2023).

of revolts in the region as a whole or on identifying and explaining how this trend varied across countries and revolt type.⁴ Moreover, the main causes of the revolts that the literature has identified cannot easily explain their decline. Existing studies have tended to emphasize the factors that motivated the rebels, such as ethnic and racial inequalities, religious cleavages, regionalist sentiments, electoral frustrations, and a lust for economic resources or power. These grievances and motivations persisted into the 20th century, however, and thus they do not offer a compelling explanation for the long-term, gradual decline of rebellion across the region.

This study adopts an alternative perspective, more suited to capture the conditions (i.e., the opportunities) that enable revolts. In line with the state of the art in the civil war literature, we maintain that military weakness encourages revolts from outside of the state apparatus. Many of the South American revolts of the 19th century, we argue, stemmed from the weaknesses of the region's militaries, but the expansion and professionalization of the armed forces at the end of the century effectively deterred most of these revolts. We contend that two exogenous international factors, export booms and the threat of inter-state conflict, provided South American countries with both the funds and the incentives to increase the size and professionalization of their armed forces. These internationally driven military buildups indirectly enabled states in the region to achieve a monopoly on violence, radically transforming domestic politics in South America.

This study advances the literature conceptually, empirically, and theoretically. Our central conceptual innovation is the development of an original typology that identifies four distinct categories of revolts based on whether the rebel leaders come from inside or outside the state apparatus (insider vs. outsider revolts) and whether they hail from the elites or the masses. Our

⁴ The most comprehensive source on revolts in the region is Robert L. Scheina, *Latin America's Wars: The Age of the Caudillo, 1791-1899* (Washington: Brassey's, 2003). However, he does not explain the decline in revolts or provide an overarching analysis.

main empirical contribution is the development and analysis of a comprehensive database on revolts between 1830 and 1929.⁵ This database enables us to rigorously document the decline in overall revolts during this period and identify important trends in different types of revolts that the literature has overlooked. It also enables us to carry out what we believe is the first quantitative analysis of South American revolts during this period.

Our main theoretical contribution is to show that increases in the size and professionalization of the military reduce some types of revolts but not others. Although this is not the first study to suggest that the strengthening of South American militaries at the outset of the 20th century led to a decline in revolts, it is the first to document how increased military strength led to the reduction of revolts from outside the state apparatus, such as factional rebellions and popular uprisings, but not revolts from inside the state, such as military coups. The decline in outsider revolts brought important benefits, especially since, as we show, outsider revolts tended to be the largest and bloodiest rebellions. However, the continuation of insider revolts had negative consequences for democracy and political stability in the region since insider revolts were the most likely to succeed in overthrowing the president.⁶

An additional theoretical contribution is to show that exogenous factors, specifically the export boom and the threat of international conflict, led to the strengthening of the armed forces. For much of the 19th century, South American governments lacked the resources to invest extensively in their militaries, but the expansion of foreign trade in the late 19th century brought in new revenues that the states could use to import sophisticated weaponry, hire foreign military

⁵ Raúl L Madrid et al., *Latin American Revolts Database*, 2023.

⁶ This article focuses on explaining the onset of major revolts, but we also discuss their outcomes (e.g., how often the revolts overthrew the president) because the outcomes affected the likelihood of future revolts.

missions, establish new military schools and expand the size of their armies. To exploit exportable resources, states also needed to effectively control distant corners of their territories and settle contested international borders, which heightened international tensions and provided the motivation for upgrading the military. In addition, the major international wars that South America experienced in the late 19th century and the intense militarized inter-state disputes that persisted into the early 20th century set off region-wide arms races, as nations rushed to respond to increased foreign threats.

To explore these questions, this study employs a multi-method strategy and harnesses an abundance of qualitative and quantitative evidence. We draw on numerous historical studies to build our database, to describe the main characteristics and ubiquity of revolts during the 19th century, and to show how these diminished once South American countries expanded and professionalized their armed forces due to international pressures and opportunities arising at the end of the century. We then demonstrate that military strength can explain temporal and cross-national variation in outsider revolts better than any alternative hypothesis.

Nineteenth-century South America provides an interesting and relatively unexplored laboratory to explore the causes of domestic conflict. The sheer length of the historical period, the lack of attrition of South American states (compared to European ones at the time), and the high intensity and frequency of revolts, make for an ideal setting to test available theories.⁷ Explaining the decline of revolts in nineteenth-century South America may also shed light on the causes of transformations in political violence in other time periods and regions. Military professionalization and state-building came earlier in South America than it did in Africa and parts of Asia. The

⁷ We exclude the decades before 1830 in order to omit those conflicts associated with the independence struggle and capture a period of greater stability in the pool of national states. Uruguay became a sovereign state in 1828, and Ecuador and Venezuela did so in 1830.

relative slowness of African and Asian countries in terms of developing their militaries may well explain why they remained prone to outsider revolts for much of the 20th century.

This article is organized as follows. The first section presents a typology of revolts, and shows how the frequency and type of revolts changed over time and across countries. The second section discusses the existing literature on revolts in Latin America and on civil war more generally. It uses these literatures to develop an explanation for the decline in revolts that is focused on the military expansion and professionalization efforts that South American countries undertook during this period. The third and fourth sections examine the evolution of military strength in South America during the 19th and early 20th century: these sections argue that the strengthening and professionalization of the military reduced the frequency of certain types of revolts. The fifth section presents a statistical test of this argument, and the conclusion highlights the theoretical, conceptual and empirical contributions of this study.

The Decline in Revolts in South America

How frequent were revolts in South America during the 19th and early 20th century? How did they vary over time and across countries? Existing studies have lacked the data to answer these questions with any precision. Indeed, the sheer number of revolts has led some scholars to despair of the possibility of counting them all.⁸ To come up with a comprehensive count of revolts, we used more than 250 historical sources to construct an original database of all rebellions in the

⁸ Miguel Angel Centeno, *Blood and Debt: War and the Nation-State in Latin America* (University Park: Pennsylvania State University Press, 2002), 61; Brian Loveman, *For la Patria: Politics and the Armed Forces in Latin America* (Wilmington: Scholarly Resources, 1999), 43.

region from 1830 to 1929.⁹ We define a revolt as *an instance of the use or the credible threat of violence by an identifiable domestic political group that defies the authority of the state*.¹⁰

Our dataset reveals a dramatic decline in major revolts in South America from the 19th to the 20th century, as **Figure 1** indicates.¹¹ We focus here on major revolts, which we define as those which involved at least 500 rebels, because they are the most important types of rebellions.¹² Moreover, data on them is more plentiful, which reduces measurement and identification error. Between 1830 and 1899, there were on average .45 active major revolts per country-year, meaning that each country had almost an even chance of facing an important rebellion in any given year. By contrast, in the first three decades of the 20th century, this average declined to .21, an approximately one-fifth chance of seeing a major rebellion in any country-year. While the decline is partly due to the longer duration of revolts in the 19th century, the finding holds when we look at revolt onsets alone: an average of 30 revolts were initiated per decade in the 19th century, as opposed to only 15 per decade in the early 20th century. Similar trends are apparent if we focus on especially lengthy, large or impactful rebellions. As **Figure 1** shows, revolts that lasted for more than one year, involved more than 5,000 rebels and led to the overthrow of the chief executive, all declined dramatically during the early 20th century, amounting to only a handful of cases by the 1920s.

⁹ See the online appendix at **[insert DOI]** for a discussion of the methods used to construct this data set and how it differs from existing conflict databases.

¹⁰ South American states only gradually consolidated their national boundaries over the course of the 19th century. We define political conflicts as revolts if they defy the central authorities of states even in the absence of consolidated territorial boundaries.

¹¹ An analysis of minor revolts shows an even steeper decline and suggests that the trends for major rebellions apply to all rebellions in our dataset.

¹² We use the terms revolts and rebellions interchangeably.

Figure 2 complements this picture, showing how the frequency of major revolts varied across countries and time. Argentina with over .8 major revolts per year was the most rebellious country between 1830 and 1899. By contrast, Chile and Paraguay had the fewest major revolts during this period. All South American countries experienced a decline in the number of revolts during the first three decades of the 20th century, with the sole exceptions of Ecuador and Paraguay. In the other eight South American countries, and particularly in Argentina and Uruguay, the decline in revolts was dramatic. As we discuss below, these four cases show how exogenous shocks, such as wars and export booms, impact military strength and the likelihood of revolts.

Types of Revolt in Historical South America

Not all types of revolts declined at the same rate, however. To explore variation across different types of revolts, we identified four distinct categories of revolts based on whether the leader of the revolt came from inside or outside the national state apparatus, and whether the rebel leader hailed from the elite or the masses.¹³ Henceforth, we refer to revolts with leaders from outside the state apparatus as outsider revolts or rebellions, and revolts from inside the state apparatus, including the military, as insider revolts or rebellions. Our typology, which is depicted in **Figure 3**, is based to a large degree on previously conceptualized revolt types, such as coups and civil wars, but it offers a novel systematization that is more in line with historiographical work. For example, it identifies an important type of revolt, factional rebellion (i.e., revolts by elites based outside the state apparatus), which was prominent in South America during this period, but

¹³ Some revolts have multiple leaders with different backgrounds, but in classifying them, we focus on the characteristics of the paramount leader of each revolt. Thus, a revolt led by an elite member of the opposition is categorized as a factional rebellion, even if some military units and generals joined in on the revolt.

has not been conceptualized by political scientists.¹⁴ Alternative categorizations which focus on the consequences of the revolts cut across our categories. Civil wars, for example, typically refer to revolts by non-state actors that exceed a battle-death threshold of 1,000—any of our revolt types may become civil wars if they escalate, although outsider rebellions are more likely to do so.¹⁵

In line with extant databases, our typology defines coups as “illegal and overt attempts by the military or other elites within the state apparatus to unseat the sitting executive”.¹⁶ The vast majority of coups originate in the military, although coups may also be undertaken by high-ranking government officials, such as cabinet ministers. General José María Melo’s overthrow of the president of Colombia in 1854 is a classic example of a nineteenth-century coup, because it was clearly led by an active-duty military officer even though it also involved artisans and some civilian leaders. We identify 66 major coup attempts between 1830 and 1929, providing a valuable extension to existing coup datasets that start around 1946.¹⁷

Factional rebellions are revolts led by elites from outside of the state apparatus. They may consist of local elites attempting to secede or opposition parties or politicians taking up arms to

¹⁴ Somma found that most nineteenth-century insurgencies in Chile, Colombia, Costa Rica, and Uruguay were led by powerful elites. See Nicolás M. Somma, "When the Powerful Rebel: Armed Insurgency in 19th Century Latin America" (PhD diss., University of Notre Dame, 2011), 1-8. Although factional rebellions largely disappeared in South America in the 20th century, they continued in parts of Africa and Asia so this category may shed light on more recent rebellions as well.

¹⁵ James D. Fearon, "Why Do Some Civil Wars Last So Much Longer Than Others?," *Journal of Peace Research* 41, no. 3 (2004), <https://doi.org/10.1177/0022343304043770>.

¹⁶ Jonathan Powell and Clayton L. Thyne, "Global Instances of Coups from 1950 to 2010: A New Dataset," *Journal of Peace Research* 48, no. 2 (2011): 252, <https://doi.org/10.1177/0022343310397436>.

¹⁷ John J. Chin, David B. Carter, and Joseph G. Wright, "The Varieties of Coups D'état: Introducing the Colpus Dataset," *International Studies Quarterly* (2021), <https://doi.org/10.1093/isq/sqab058>. Lehoucq has developed a coup data set for Latin America that goes back to 1900. See Fabrice Lehoucq, "Political Instability and its Legacies: Regime Trajectories in Latin America," (unpublished manuscript, 2022).

overthrow the government. A prominent example would be the 1895 Liberal Revolution in Ecuador in which liberal forces under Eloy Alfaro, an opposition leader, overthrew the government. Factional rebellions were by far the most common type of major revolt between 1830 and 1929: we record 152 of them during this period.

Popular uprisings refer to rebellions led by subalterns who are located outside of the state. The 1927 uprising of indigenous people in Chayante, Bolivia, would classify as a popular uprising as would other indigenous revolts, violent labor protests, and slave rebellions. We identify 34 major popular uprisings during this period.

Finally, there are revolts from within the state that are led by non-elites, such as mutinies of rank-and-file soldiers or non-commissioned officers. These revolts were typically smaller and we record few instances of them. We thus drop this category from the descriptive statistics in **Figure 4**.

We focus on the origins of leaders for conceptual and theoretical reasons. Conceptually, the origins of leaders provide a clear and appropriate criterion to categorize a revolt as an insider or outsider rebellion.¹⁸ Theoretically, leadership origin matters for at least two reasons. First, the origins of leaders help determine the likelihood of success of the revolts. Revolts led by insider elites are more likely to succeed because insider elites tend to have greater access to resources, including troops, weaponry, financing, and the media. As **Figure 4** indicates, between 1830 and 1929, almost 71 percent of coup attempts in South America overthrew the government, as opposed

¹⁸ In the civil war literature all organizations confronting the military are usually assumed to be non-state actors by default. Consider, for example, a rather common case where an unsuccessful military coup leads to a protracted confrontation. The civil war literature would typically classify such a case as a civil war once the conflict surpassed a battle-death threshold, and the conspirators would be considered non-state actors confronting the military. This could lead to counting a single rebellion twice, first as a coup attempt and then as a civil war. For us this would be recorded more properly as an insider rebellion by a state actor.

to only 30 percent of factional rebellions, and 3 percent of popular uprisings.¹⁹ Second, the origins of the rebel leaders also impact the size and costs of the revolts. Whereas insider rebellions tend to be resolved quickly and with minimal bloodshed, outsider revolts are usually more prolonged and more violent. Between 1830 and 1929, 21 percent of popular uprisings and 14 percent of factional rebellions in South America lasted more than one year, as opposed to 6 percent of coups. Similarly, 29 percent of outsider revolts led to more than 1,000 battlefield deaths—a common threshold for classifying civil wars—in comparison to only 10 percent of coups.

Even more interesting for our purposes, disaggregating the type of revolt by the origins of its leaders helps shed light on the decline in revolts from the 19th to the 20th century. As **Figure 5** shows, this decline was driven by a sharp drop in the number of *outsider revolts*—that is, revolts from outside the state apparatus. During the 19th century, three-quarters of the major revolts in South America came from outside the state, but in the first three decades of the 20th century, outsider rebellions constituted only 62 percent of all major revolts. Elites led the majority of outsider revolts in both the 19th and early 20th century, but the number of factional rebellions declined significantly over time. Between 1830 and 1899, there were on average 18 factional rebellion onsets per decade, whereas between 1900 and 1929, there were only eight. A similar trend prevailed with popular uprisings, which declined from an average of four per decade in the 19th century to one per decade between 1900 and 1929. The number of coup attempts declined more modestly from the 19th to the early 20th century and, as a result, coups constituted an increasing portion of all revolts. As **Figure 5** shows, by the 1920s, the number of insider revolts that were active in any given year was roughly the same as that of outsider rebellions.

¹⁹ These figures should be viewed with some caution, however, since some unsuccessful coup attempts may not be reported in the historical literature.

In sum, our new database indicates that during the early 20th century there was a sharp decline in revolts in South America, and the large, lengthy and bloody internal conflicts that plagued the region during the 19th century mostly came to an end. We showed that this decline varied somewhat across countries, with Paraguay being the only country to experience an increase in major revolts during the first few decades of the 20th century—we discuss this case further below. We also found that insider and outsider rebellions differed greatly in terms of their average size, length, level of violence, and success in overthrowing the government. Finally, we showed that outsider revolts drove the decline in political violence, while insider revolts remained relatively stable. As we shall see, the divergent trends in insider and outsider revolts can be explained by the strengthening of South American militaries at the beginning of the 20th century since military strength deterred factional rebellions and popular uprisings but not military coups.

Explaining the decline in revolts

The historical literature has stressed that nineteenth-century revolts in South America were complex and had a wide variety of causes. Most of the historical literature focuses on the motivations of the rebels. Scheina, for example, argues:

“The causes for wars in Latin America during the nineteenth century are numerous and create a vivid, plaid tapestry... The most vivid threads have been the race war, the ideology of independence, the controversy of separation versus union, boundary disputes, territorial conquests, caudilloism, intraclass struggles, interventions caused by capitalism, and religious wars.”²⁰

²⁰ Scheina, *Latin America's Wars*, xxiii. Various scholars have also shown how electoral fraud, or allegations of it, often triggered revolts. Carlos Malamud, "The Origins of Revolution in Nineteenth-Century Argentina," in *Rumours of War: Civil Conflict in Nineteenth-Century Latin*

Safford, meanwhile, identifies five types of explanations for these revolts, including cultural factors, economic structures, fiscal weakness, changing power relations among elite groups, and conflicting ideologies and interests.²¹

Much of the general social science literature on political violence similarly focuses on the motivations of the rebels or what the literature has sometimes referred to as grievances and greed. The conflict literature, for example, has extensively explored the role that economic factors²², ethnic and religious cleavages²³, and regime type²⁴ have played in revolts.

America, ed. Rebecca Earle (London: Institute of Latin American Studies, 2000); Eduardo Posada-Carbó, ed. *Elections before Democracy: The History of Elections in Europe and Latin America* (London: ILAS, University of London, 1996); Paula Alonso, *Between Revolution and the Ballot Box: The Origins of the Radical Party in the 1890s* (New York: Cambridge University Press, 2000). Indeed, during the 19th century, revolts were considered a legitimate response to electoral manipulation and other forms of despotism. Hilda Sabato, *Republics of the New World: The Revolutionary Political Experiment in 19th-Century Latin America* (Princeton: Princeton University Press, 2018), 112-15; Rebecca Earle, "Introduction," in *Rumours of Wars: Civil Conflict in Nineteenth-Century Latin America*, ed. Rebecca Earle (London: Institute of Latin American Studies, 2000), 3-4.

²¹ Frank Safford, "The Problem of Political Order in Early Republican Spanish America," *Journal of Latin American Studies* 24(1992), doi:10.1017/S0022216X00023798; Frank Safford, "Reflections on the Internal Wars in Nineteenth-Century Latin America," in *Rumours of Wars: Civil Conflict in Nineteenth-Century Latin America*, ed. Rebecca Earle (London: Institute of Latin American Studies, 2000).

²² Christopher Blattman and Edward Miguel, "Civil War," *Journal of Economic Literature* 48, no. 1 (2010): 45, DOI: 10.1257/jel.48.1.3; Curtis Bell, "Coup d'État and Democracy," *Comparative Political Studies* 49, no. 9 (2016): 1170, <https://doi.org/10.1177/0010414015621081>.

²³ Lars-Erik Cederman and Luc Girardin, "Beyond Fractionalization: Mapping Ethnicity onto Nationalist Insurgencies," *American Political Science Review* 101, no. 1 (2007), doi:10.1017/S0003055407070086; Philip Roessler, "The Enemy Within: Personal Rule, Coups, and Civil War in Africa," *World Politics* 63, no. 2 (2011), doi:10.1017/S0043887111000049; Nils-Christian Bormann, Lars-Erik Cederman, and Manuel Vogt, "Language, Religion, and Ethnic Civil War," *Journal of Conflict Resolution* 61, no. 4 (2017), <https://doi.org/10.1177/0022002715600755>; Joan Esteban, Laura Mayoral, and Debraj Ray, "Ethnicity and Conflict: An Empirical Study," *American Economic Review* 102, no. 4 (2012), DOI: 10.1257/aer.102.4.1310.

²⁴ James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," *American Political Science Review* 97, no. 1 (2003): 84-85, doi:10.1017/S0003055403000534; Jonathan Powell, "Determinants of the Attempting and Outcome of Coups d'état," *Journal of Conflict Resolution* 56, no. 6 (2012): 1035, <https://doi.org/10.1177/0022002712445732>; Havard Hegre et

We believe that the motivations of the rebels are important, but they cannot fully explain long-term trends in South American revolts, which is the purpose of this article. On the theoretical side, these explanations do not indicate why citizens had the opportunity to rebel in the first place—that is, they do not explain why insurgents were able to assemble their armies and fend off government troops, irrespective of their motivations. On the empirical side, these approaches struggle to account for the dramatic decline in revolts that occurred at the outset of the 20th century since authoritarian regimes, ethnic cleavages, electoral fraud, inter-state rivalries, and economic hardships continued to be widespread.

Another approach in the conflict literature focuses on the weakness of the state, rather than the motivations of rebels, as the main cause of revolts.²⁵ Stemming in part from the study of revolutions,²⁶ this approach “has become the dominant explanatory paradigm in the civil war literature.”²⁷ The weak state approach suggests that motivations for rebellion (grievances and greed) are widespread, but they only tend to result in significant revolts where the state lacks the ability to prevent or suppress rebellions. Revolts occur, in the words of one influential study, because “financially, organizationally, and politically weak central governments render insurgency more feasible and attractive due to weak local policing or inept and corrupt

al., "Toward a Democratic Civil Peace? Democracy, Political Change and Civil War, 1816-1992," *American Political Science Review* 95, no. 1 (2001), doi:10.1017/S0003055401000119.

²⁵ Fearon and Laitin, "Ethnicity, Insurgency, and Civil War.;" Cullen S. Hendrix, "Measuring State Capacity: Theoretical and Empirical Implications for the Study of Civil Conflict," *Journal of Peace Research* 47, no. 3 (2010), <https://doi.org/10.1177/0022343310361838>; James D. Fearon, "Governance and Civil War Onset," *World Development Report 2011 Background Paper* (2010), http://web.worldbank.org/archive/website01306/web/pdf/wdr%20background%20paper_fearon_0.pdf.

²⁶ Theda Skocpol, *States and Social Revolutions* (New York: Cambridge University Press, 1979).

²⁷ Lars-Erik Cederman and Manuel Vogt, "Dynamics and Logics of Civil War," *Journal of Conflict Resolution* 61, no. 9 (2017): 1997, <https://doi.org/10.1177/0022002717721385>.

counterinsurgency practices”.²⁸ This literature, however, usually focuses on the subnational or cross-national level, and rarely analyses long-term regional patterns.

Building on this approach, as well as on the work of historians, we focus on a specific dimension of state capacity: military strength. We define military strength not simply as the number of troops in the military, but also the degree of its professionalization—that is, the sophistication of the weaponry, training and leadership that the military possesses. We argue that revolts occurred frequently during the 19th century because South American countries had small armies that were poorly equipped, trained and led. Once these states expanded and professionalized their armed forces in the early 20th century, the number of revolts in the region declined precipitously. Strong militaries could defeat uprisings before they became major revolts, but, even more importantly, military strength deterred revolts. Would-be rebels were unlikely to revolt if they believed that the rebellions would be quickly suppressed by a powerful military.

To be sure, this is not the first study to suggest that military expansion and professionalization reduced revolts in South America in the 20th century.²⁹ Nevertheless, we go well beyond existing studies in documenting how increased military strength led to the regionwide decline. In addition, we show that increased military strength explains not only why revolts diminished in South America from the 19th to the 20th century, but also why this happened more rapidly in some countries than others since not all states expanded and professionalized their

²⁸ Fearon and Laitin, "Ethnicity, Insurgency, and Civil War," 75-76.

²⁹ Lieuwen, for example, argues that the strengthening and professionalization of the military “made it progressively more difficult to launch rebellions without at least some support from the nation’s regular armed forces.” See Edwin Lieuwen, *Arms and Politics in Latin America* (New York: Praeger, 1961), 29-31. Safford, meanwhile, suggests that “as trade and government revenues expanded, Spanish American governments increasingly had the fiscal and therefore the military strength to sustain themselves.” See Safford, "The Problem of Political Order," 97. Neither scholar makes military professionalization or the regional decline of revolts the focus of his analysis, however.

militaries at the same time or to the same degree. Equally important, growing military strength explains why some types of revolts decreased in South America at the outset of the 20th century while others did not. The strengthening of the armed forces should mostly deter outsider revolts, such as factional rebellions and popular uprisings—think, for example, of the impressive technological gap that the acquisition of state-of-the-art weaponry generated between the armed forces and non-state rebel groups. Yet, the advances in technological sophistication and size of the armed forces will not necessarily deter revolts from inside the state apparatus, such as military coups. Indeed, efforts to strengthen the military may empower those who seek to carry out coups as well as those who oppose them.

Although military professionalization is supposed to marginalize the military from politics and establish clear civilian control over the military,³⁰ it did not achieve these aims in South America. As Stepan has argued, militaries in this region have traditionally been responsible for maintaining internal as well as external security, which provided them with a rationale to intervene in politics.³¹ The armed forces overthrew civilian leaders not just to resolve perceived threats to national security, but to safeguard their own interests as well as those of allied political elites. According to Rodríguez, “professionalization had the long-term effect of politicizing the armed forces to defend their corporate interest, which they identified as synonymous with those of the nation.”³² Military professionalization may have even encouraged some coups by enhancing the

³⁰ See Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge: Belknap/Harvard, 1957).

³¹ Stepan focuses on Latin American militaries during the late 20th century, but the military’s involvement in internal security dates to the 19th century. See Alfred Stepan, “The New Professionalism of Internal Warfare and Military Role Expansion,” in *Authoritarian Brazil: Origins, Policies, and Future*, ed. Alfred Stepan (New Haven: Yale University Press, 1973).

³² Linda Alexander Rodríguez, “Introduction,” in *Rank and Privilege: The Military and Society in Latin America*, ed. Linda Alexander Rodríguez (Wilmington: Scholarly Resources, 1994), xiii.

confidence and autonomy of military officers and persuading some officers that they could do a better job of governing than civilian leaders.³³ Increases in military budgets and personnel also increased the influence of the armed forces and the number of potential coup conspirators, thereby complicating coup-proofing efforts. For all these reasons, insider revolts, in contrast to outsider revolts, did not decline significantly in the wake of the professionalization of South American militaries.

The strengthening of the armed forces in the 19th century was exogenously driven. As our historical narratives will show, South American rulers strengthened their militaries in the late 19th century mostly to deal with foreign threats. During the late 19th century South America experienced two major wars, and it maintained numerous unresolved border conflicts that led to bitter rivalries and frequent militarization in the early 20th century as well. South American countries had been plagued by inter-state conflicts since independence, but for much of the 19th century, governments were in dismal financial shape and lacked the funds to invest in their militaries. The export boom of the late 19th and early 20th century, however, put these countries on much more solid financial footing, providing them with the revenues to expand their militaries and import weaponry and foreign military advisers. The export boom also created frictions as European settlers expanded the agricultural frontier and capital moved into peripheral regions leading South American states to seek to exert control over formerly remote border areas where exportable commodities were produced. In this way, economic conditions, as well as regional competition and conflict, triggered an arms race of sorts, putting pressure on South American countries to expand and professionalize

³³ Alain Rouquié, *The Military and the State in Latin America* (Berkeley: University of California Press, 1987), 102-04; John Samuel Fitch, *The Armed Forces and Democracy in Latin America* (Baltimore: The Johns Hopkins University Press, 1998), 6-7.

their militaries. The result was a regional trend of military strengthening that led to the region-wide decline of outsider rebellions.

The weak militaries of nineteenth-century South America

The weakness of South America's militaries during the 19th century stemmed from a variety of factors, including: the small size of armies; rudimentary weaponry; the paucity of military discipline and training; and the politicization of the officer corps.³⁴ In addition, South American states decentralized security, creating militias which sometimes turned against the national military. All of these shortcomings encouraged outsider revolts.

Latin American governments could ill afford to invest in their militaries for most of the 19th century because they were starved for funds, especially foreign currency. The wars of independence disrupted trade and destroyed Latin American economies, and political instability combined with a lack of infrastructure and inefficient policies slowed economic recovery in the decades that followed. Per capita GDP grew at a rate of only 0.2 percent annually between 1820 and 1870 in Latin America.³⁵ Meager economic growth severely constrained tax revenues, which in turn limited government spending. Although military expenditures were relatively low, they typically accounted for a large share of state spending, reducing the ability of Latin American governments to address other needs. Centeno shows that before the 1880s military expenditures almost invariably constituted more than 50 percent and often more than 70 percent of the budgets of Latin American governments.³⁶

³⁴ This article focuses on South American armies, as opposed to navies, because the former were the principal forces used to suppress revolts.

³⁵ Luis Bértola and José Antonio Ocampo, *The Economic Development of Latin America since Independence* (New York: Oxford University Press, 2013), 62.

³⁶ Centeno, *Blood and Debt*, 119-21.

After the Wars of Independence, South American governments reduced the size of their militaries in order to alleviate their fiscal burdens. Most armies remained quite small throughout the bulk of the 19th century, particularly compared to their European counterparts. Bolivia's army typically numbered less than 2,000 men during the 19th century.³⁷ The Colombian military never exceeded 4,000 men before the 1880s and it often had less than 2,000 men.³⁸ According to Centeno, less than half of one percent of the population usually participated in the militaries of South American countries.³⁹

When a foreign or domestic threat required it, militaries usually swelled, but in a rather *ad hoc* manner. During wartime the military would sweep through urban neighborhoods and rural villages, press-ganging whatever able-bodied men they could find. A popular saying of the time was: "If you want more volunteers, send more chains".⁴⁰ The troops' wages were miserable, the government sometimes fell into arrears on payments, and soldiers frequently deserted despite severe punishments for doing so.⁴¹ In addition, the troops received little training. As Resende-Santos notes, "Prior to the 1880s, none of the regional militaries had a standardized system of enlistment, training, and reserves."⁴² Soldiers came overwhelmingly from the poorest sectors of the population and typically had little education, if any. Most of the soldiers were illiterate and

³⁷ James Dunkerley, *Orígenes del poder militar: Bolivia, 1879-1935* [Origins of military power] (La Paz: Plural Editores, 2003), 71.

³⁸ Fernando López-Alves, *State Formation and Democracy in Latin America, 1810-1900* (Durham: Duke University Press, 2000), 138; James L. Payne, *Patterns of Conflict in Colombia* (New Haven: Yale University Press, 1968), 120.

³⁹ Centeno, *Blood and Debt*, 224-25.

⁴⁰ Cited in John J. Johnson, *The Military and Society in Latin America* (Stanford: Stanford University Press, 1964), 54.

⁴¹ Rouquié, *The Military and the State*, 65.

⁴² João Resende-Santos, *Neorealism, States, and the Modern Mass Army* (New York: Cambridge University Press, 2007), 121.

many were vagrants and even criminals. Colombia reported in 1882 that only 30 percent of its troops could read.⁴³

Military officers in South America also lacked proper training and organization during this period. According to Loveman, the nineteenth-century armies “were not organized under an operational general staff, did virtually no planning for diverse military threats, carried out few military exercises, and were unprepared for sustained combat.”⁴⁴ Army officers rarely attended military schools: in 1893 the Argentine War Ministry reported that only 30 of its approximately 1,400 army officers had received advanced training or graduated from a military academy.⁴⁵ Some South American governments founded military academies during the 19th century, but these academies typically operated irregularly and their curriculums were woefully out-of-date. Political connections, rather than military expertise, determined ascent in the officer ranks.⁴⁶ In many South American countries, widespread promotions led to an excess of officers particularly at the higher ranks. Bolivia, for example, had one general for every 102 soldiers and one officer for every six soldiers in 1841.⁴⁷ Venezuela’s officer ranks were even more bloated: a census of the state of Carabobo in 1873 counted 3,450 commissioned officers, including 627 colonels and 449 generals, out of a population of 22,952.⁴⁸

⁴³ Malcolm Deas, "The Man on Foot: Conscription and the Nation-State in Nineteenth-Century Latin America," in *Studies in the Formation of the Nation State in Latin America*, ed. James Dunkerley (London: Institute of Latin American Studies, 2002), 92.

⁴⁴ Loveman, *For la Patria*, 30.

⁴⁵ Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 122.

⁴⁶ Johnson, *The Military and Society*, 52-53; Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 122; Loveman, *For la Patria*, 42-43; George Philip, *The Military in South American Politics* (Dover: Croom Helm, 1985), Ch. 4; Rouquié, *The Military and the State*, 64-65.

⁴⁷ Scheina, *Latin America's Wars*, 263; Dunkerley, *Origenes del poder militar*, 18.

⁴⁸ Philip, *The Military in South American Politics*, 87.

South American militaries also lacked sophisticated weaponry for most of the 19th century, relying on pointed weapons, such as the lance, the pike, the sword and the machete, rather than on firearms.⁴⁹ Arraíz writes that during the revolts: “Combat took place in a series of personal encounters in which people attacked each other with lances, swords, bayonets, fists and whatever was at hand...”⁵⁰ Both sides typically had some firearms, but these were primitive weapons with limited range and accuracy. Even when South American militaries did obtain more sophisticated weapons, they often used them inappropriately, had problems repairing and servicing them, and sometimes let them slip into the hands of the rebels.⁵¹

During the 19th century, most South American governments reorganized and expanded civic guards or urban and provincial militias, which had existed since colonial times.⁵² These militias were less expensive to maintain than the regular army, but they did little to enhance the authority of the central state. First, militia members typically had little training or equipment, although there were exceptions such as in Brazil where the state militias, especially those of São Paulo and Minas Gerais, gradually became better trained and armed than the Federal Army.⁵³ The government usually required members of the militias to provide their own weapons and training, but the members often did not own firearms and drilled rarely if at all. In the Rio de la Plata region, the members of militias only trained one or two days per month during peace time.⁵⁴

⁴⁹ Scheina, *Latin America's Wars*, 427.

⁵⁰ Antonio Arraíz, *Los días de la ira: Las guerras civiles en Venezuela, 1830-1903* [The days of wrath] (Valencia: Vadell Hermanos Editores, 1991), 151. For a vivid description of 19th century warfare, see Alejandro M. Rabinovich and Natalia Sobrevilla Perea, "Regular and Irregular Forces in Conflict: Nineteenth Century Insurgencies in South America," *Small Wars and Insurgencies* 30, no. 4-5 (2019): 786-91, <https://doi.org/10.1080/09592318.2019.1638538>.

⁵¹ Arraíz, *Los Días de la Ira*, 157; Somma, "When the Powerful Rebel," 236; Scheina, *Latin America's Wars*, 427.

⁵² Sabato, *Republics of the New World*, 90-96.

⁵³ Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 124.

⁵⁴ Rabinovich and Sobrevilla Perea, "Regular and Irregular Forces," 784.

Second, militias could not be counted on to support the government. Indeed, they often formed the main base of rebel armies, which was particularly problematic given that in most countries the militia troops vastly outnumbered the army.⁵⁵ In some cases, the militias were set up or expanded to counterbalance the regular army: in Uruguay, for example, the Blanco Party built up a civic guard to offset the Colorado Party-dominated army.⁵⁶ Despite periodic efforts to centralize control, in most countries the militias remained under the leadership of provincial and local authorities and at times represented a direct threat to the national government.⁵⁷ In Argentina, provincial militias typically supplied both the troops and the weapons that were used in revolts during the 19th century,⁵⁸ and in Brazil the local militias of southern states singlehandedly sustained a ten-year campaign against the imperial army during the Ragamuffin War.⁵⁹ In many rural areas, local caciques and caudillos controlled unofficial militias, which often participated in rebellions and guerrilla warfare.⁶⁰

⁵⁵ In Chile, for example, the regular army had only 3,000 troops, whereas the civic guard reached 60,000 troops in the 1850s, before beginning a gradual decline James A. Wood, *The Society of Equality: Popular Republicanism and Democracy in Santiago de Chile, 1818-1851* (Albuquerque: University of New Mexico, 2011), 86-88; Somma, "When the Powerful Rebel," 398.

⁵⁶ Selva López Chirico, *Estado y fuerzas armadas en el Uruguay* [The state and the armed forces in Uruguay] (Montevideo: Ediciones de la Banda Oriental, 1985), 29-30; Somma, "When the Powerful Rebel," 150.

⁵⁷ Sabato, *Republics of the New World*, 98-99. The militias were not a threat to the authority of the central state everywhere in South America: militias rarely revolted in Chile, and in some countries like Paraguay, they were abolished early.

⁵⁸ Ezequiel Gallo, "Argentina: Society and Politics, 1880-1916," in *The Cambridge History of Latin America*, ed. Leslie Bethell (New York: Cambridge University Press, 1986), 379; Riccardo Forte, "Incertidumbre y Determinación: Transición Liberal y Construcción del Poder Coactivo del Estado en México y Argentina (ca. 1855-1880)," [Uncertainty and determination.] *Anuario de Historia Regional y de las Fronteras* 7, no. 1 (2002): 241, <https://revistas.uis.edu.co/index.php/anuariohistoria/article/view/1473>.

⁵⁹ José Iran Ribeiro, "O fortalecimento do Estado Imperial a través do recrutamento militar no contexto da Guerra dos Farrapos," [The strengthening of the Imperial State through military recruitment in the context of the War of the Ragamuffins.] *Revista Brasileira da História* 31, no. 62 (2011): 271, <https://doi.org/10.1590/S0102-01882011000200014>.

⁶⁰ Rabinovich and Sobrevilla Perea, "Regular and Irregular Forces," 785.

Not coincidentally, Chile and Paraguay, the two South American countries that had, perhaps, the highest coercive capacity during much of the 19th century also had the fewest revolts. Chile did not avoid internal revolts all together—it experienced numerous revolts prior to 1860 and a civil war in 1891, but its military prowess, demonstrated in the War of the Pacific (1879-1883) against Bolivia and Peru, deterred most domestic rebels in the late 19th century. Chile developed a strong military during this period not by expanding its size, but rather by making early investments in foreign training—officers were sent to study in France beginning in the 1840s, and a small French training mission was contracted in 1858—as well as in tactics and weaponry.⁶¹ Early on, Chile also asserted centralized control of its national guard, which played an important role in squashing rebellions as well as turning out votes for the ruling party.⁶² As discussed below, the Chilean state achieved an even greater monopoly on violence when a much larger German military mission arrived in 1885.

Paraguay also initially enjoyed relative political stability thanks to its considerable military strength. During the mid-19th century, Paraguay developed one of the largest and strongest militaries in the region. The Paraguayan government imported massive quantities of weapons, overhauled the training of the troops and brought in foreign officers, most notably the Hungarian Lieutenant Colonel Francisco Wisner, to modernize and discipline its army.⁶³ It even built up an

⁶¹ Hernán Ramírez Necochea, *Fuerzas armadas y política en Chile, 1810-1970* [The armed forces and politics in Chile] (Havana: Casa de las Américas, 1985), 39-40; Tommie Hillmon Jr., "A History of the Armed Forces of Chile from Independence to 1920" (PhD diss., Syracuse University, 1963), 76; J. Samuel Valenzuela, *Democratización Vía Reforma: La Expansión del Sufragio en Chile* (Buenos Aires: IDES, 1985), 182.

⁶² Sabato, *Republics of the New World*, 107, 10-11; J. Samuel Valenzuela, "Building Aspects of Democracy before Democracy: Electoral Practices in Nineteenth Century Chile," in *The History of Elections in Europe and Latin America*, ed. Eduardo Posada-Carbó (New York: St. Martin's Press, 1996), 228-31.

⁶³ John Hoyt Williams, *The Rise and Fall of the Paraguayan Republic, 1800-1870* (Austin: Institute of Latin American Studies, 1979), 110-11, 79; Thomas L. Whigham, *The Paraguayan*

important domestic arms industry. By 1864-65, the Paraguayan army had 30,000-38,000 troops, including 30 infantry regiments, 23 cavalry regiments, and 4 artillery regiments, and the military could count on an additional 150,000 men in its reserves.⁶⁴ The country's military strength effectively deterred revolts prior to the War of the Triple Alliance (1865-70). In this war, however, the combined forces of Brazil, Argentina and Uruguay destroyed the Paraguayan military. Consistent with our expectations, in the decades that followed, Paraguay was plagued by revolts.

Military strengthening

In the late 19th and early 20th century, South American nations undertook major efforts to strengthen their militaries, often with the assistance of foreign military missions. They expanded the size of their armies, upgraded their weaponry, established new military schools, adopted meritocratic criteria for officer recruitment and promotion, and banned private arms imports and local militias. As a result, their military strength increased and outsider revolts declined significantly, both in number and intensity, during the first few decades of the 20th century. The only countries that continued to have numerous outsider revolts were those with the weakest militaries, namely Ecuador and Paraguay.

South American countries expanded and professionalized their militaries during this period for two main reasons: the export boom and the threat of inter-state war. The export boom was the permissive condition (i.e., it provided the necessary resources to invest in the military) and the

War (Lincoln: University of Nebraska Press, 2002), 182; Dennis M. Hanratty and Sandra W. Meditz, eds., *Paraguay: A Country Study* (Washington: Library of Congress, 1988), 24.

⁶⁴ Hanratty and Meditz, *Paraguay: A Country Study*, 205; Juan Manuel Casal, "Uruguay and the Paraguayan War: The Military Dimension," in *I Die with My Country: Perspectives on the Paraguayan War, 1864-1870*, ed. Hendrik Kraay and Thomas L. Whigham (Lincoln: University of Nebraska Press, 2004), 187.

threat of inter-state war was the productive condition because it made military strengthening a pressing necessity.

South American countries experienced a significant amount of international conflict in the 19th century, which put pressure on their governments to build up their militaries. Between 1820 and 1914, Latin American nations fought almost as many inter-state wars as European countries did, and these wars lasted much longer and killed a significantly larger percentage of the population than they did in Europe.⁶⁵ The War of the Triple Alliance (1864-1870), with an estimated 290,000 casualties, was the bloodiest inter-state war of that period, exceeding even the Crimean War.⁶⁶ The other major South American war of this period, the War of the Pacific (1879-1883), had casualty levels similar to the average European conflict of the time. Although there were no major wars in the region between 1884 and 1929, the region continued to suffer from numerous militarized conflicts.⁶⁷ Mares reports that between 1884 and 1918 alone, South American countries had 31 militarized inter-state disputes, in which military force was used, threatened or displayed.⁶⁸ Holsti notes that in the region "...one sees patterns of peace and war, intervention, territorial predation, alliances, arms-racing, and power-balancing quite similar to those found in eighteenth-century Europe."⁶⁹

⁶⁵ Luis L. Schenoni, "Bringing War Back In: Victory and State Formation in Latin America," *American Journal of Political Science* 65, no. 2 (2021): 408, <https://doi.org/10.1111/ajps.12552>.

⁶⁶ Michael Clodfelter, *Warfare and Armed Conflicts: A Statistical Encyclopedia of Casualty and Other Figures, 1492-2015* (Jefferson: McFarland & Co., 2017), 180. Civil wars such as the American Civil War and the Taiping Rebellion claimed even more lives but were not international.

⁶⁷ Steven R. Ligon, "The Character of Border Conflict: Latin American Border Conflicts, 1830-1995" (PhD diss., The Catholic University of America, 2002); Paul R. Hensel, "One Thing Leads to Another: Recurrent Militarized Disputes in Latin America, 1816-1986," *Journal of Peace Research* 31, no. 3 (1994), <https://doi.org/10.1177/0022343394031003004>.

⁶⁸ David Mares, *Violent Peace: Militarized Interstate Bargaining in Latin America* (New York: Columbia University Press, 2001), 77.

⁶⁹ K. J. Holsti, *The State, War, and the State of War* (New York: Cambridge University Press, 1996), 153.

These conflicts provided two type of exogenous shocks affecting military strength. First, the threat of war forced every country to expand, modernize, and often mobilize its armed forces. South American countries may not have risked annihilation in international conflicts, but they certainly risked losing territory and lives.⁷⁰ For this reason, once one country strengthened its military, its neighbors and rivals felt compelled to do the same. As Resende-Santos puts it, “Intensifying military competition and war, in turn, prompted a chain reaction of large-scale military emulation,” resulting in military modernization that was “of a scale, intensity and duration not previously known in the region.”⁷¹

Second, war outcomes had an independent effect on military strength since defeat in war typically resulted in military downsizing, which was often imposed by the winners. Victory in war, meanwhile, frequently led to military expansion, either for the purposes of manning occupations or because of the newly acquired legitimacy and popularity of the military. Of these two types of shocks, the threat of war had the most important and longest lasting effects since the threat of conflict was more pervasive in South America than actual war.

Military strengthening was expensive, but the export boom of the late 19th and early 20th century brought new revenues to South American governments.⁷² Between the early 1870s and the late 1920s, the real value of exports increased almost tenfold from less than \$1.3 billion to \$12.4 billion in constant 1980 dollars, thanks in part to infrastructure improvements, technological developments, more liberal economic policies, and growing world demand.⁷³ At the same time,

⁷⁰ As Centeno points out, no Latin American country disappeared after 1840 as a result of war. See Centeno, *Blood and Debt*, 8.

⁷¹ Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 37.

⁷² State building, including the strengthening of the military, also contributed to the expansion of exports by delivering public goods, such as infrastructure and political stability.

⁷³ Bértola and Ocampo, *The Economic Development of Latin America*, 86, 97; John H. Coatsworth, "Economic and Institutional Trajectories in Nineteenth-Century Latin America," in *Latin America*

foreign investment flowed in to the region, climbing from \$1.1 billion in 1880 to \$11.2 billion in 1929.⁷⁴ Foreign investment helped capitalize the export sector and build infrastructure, such as railroads and ports, which made the exports possible. The expansion of foreign trade and investment not only provided the foreign currency to pay for weapon imports and foreign military missions, it also provided incentives to build up the military since the export boom depended on the ability of South American states to control the areas where export commodities were produced. When these areas were controlled by rebels the issue was not necessarily resolved by military subjugation: Most of the time, it was easier to coopt rural caudillos by allowing them free rein in their domains.⁷⁵ The problem was far more difficult when two states disputed sovereignty over the territory in question: The War of the Pacific, for example, originated in a dispute between Bolivia and Chile over nitrate-rich lands in the Atacama Desert. Export booms not only generated the incentives to wrestle land from neighboring states, they also fueled conflict by bringing miners, farmers and speculators into far-flung disputed areas.

Military competition was more intense where the threats of war were more pressing and where resources were more readily available.⁷⁶ Wealthier South American countries, especially those in the midst of export booms, such as Chile and Argentina, could more easily afford to make large investments in their armed forces. Indeed, Chile and Argentina engaged in a formidable arms race in the late 19th and early 20th century, with both countries importing increasingly sophisticated

and the World Economy since 1800, ed. John H. Coatsworth and Alan M. Taylor (Cambridge: Harvard University Press, 1998), 39-42.

⁷⁴ Bértola and Ocampo, *The Economic Development of Latin America*, 124.

⁷⁵ Sebastián Mazzuca, *Latecomer State Formation: Political Geography and Capacity Failure in Latin America* (New Haven: Yale University Press, 2021).

⁷⁶ Resende-Santos, *Neorealism, States, and the Modern Mass Army*.

weaponry and nearly going to war on several occasions between 1898 and 1902.⁷⁷ In the early 20th century, Argentina and Chile even went so far as to obtain dreadnoughts, the most sophisticated warship of the era.

Territorially small and surrounded by foes, Chile was the first mover in the process of military modernization, contracting a German mission headed by Captain Emil Körner in 1885. Argentina, which had serious territorial disputes with Chile, responded by hiring military advisors in the 1880s, and in 1899 it, too, contracted a German military mission. Bolivia and Peru, which continued to claim the land Chile had conquered in the War of the Pacific, responded in kind. Peru contracted a French mission in 1895, bringing in 33 French officers to teach in Peruvian military schools between 1896 and 1914.⁷⁸ The Bolivian military also hired various foreign officers to teach in its military schools during the 1890s, and in 1905, its first French military mission arrived, followed by a German mission in 1910. The foreign missions gradually spread outward from Chile and its neighbors to the other South American countries. Some of these countries, such as Brazil, Paraguay, and Uruguay contracted European missions or advisers, but others, like Colombia, Ecuador, and Venezuela hired Chilean military advisers to impart the Prussian model and sent their own military officers to train in Chile.⁷⁹

⁷⁷ The victories of Argentina and Chile in foreign wars during the late 19th century contributed to the arms race by strengthening their militaries, energizing nationalist sentiments, and stiffening their position with regard to territorial disputes.

⁷⁸ Frederick M. Nunn, *Yesterday's Soldiers: European Military Professionalism in South America, 1890-1940* (Lincoln: University of Nebraska Press, 1983), 114-17; Teodoro Hidalgo Morey et al., *Historia general del ejército del Perú: El ejército en la República, Siglo XIX* [General history of the army of Peru], vol. V (Lima: Comisión Permanente de Historia del Ejército del Perú, 2005), 349-52.

⁷⁹ Patricia Arancibia Clavel, ed. *El ejército de los chilenos, 1540-1920* [The army of Chileans], (Santiago: Editorial Biblioteca Americana, 2007).

With the support of the foreign missions, most South American countries moved to expand the size of their militaries by enacting laws that mandated military service. Chile was the pioneer again, instituting universal obligatory military service in 1900.⁸⁰ In response, Argentina enacted a similar conscription law in 1901, and by 1910 it could field a standing force of 250,000 men.⁸¹ Uruguay, meanwhile, doubled the size of its army, while Peru and Venezuela tripled theirs.⁸²

South American militaries also sought to improve the training of officers and troops opening new military institutes and adopting meritocratic criteria for the promotion of officers. In Chile, Körner revamped military training along Prussian lines: the government created highly selective military academies for junior officers as well as noncommissioned officers in 1887, and subsequently established specialized schools for the infantry, cavalry and engineers.⁸³ In addition, 130 Chilean officers were sent to Germany for further training between 1895 and 1913.⁸⁴ The Argentine military similarly modeled its educational curriculum on Germany's war academy, employing various German officers as instructors and sending between 150 and 175 officers to train in Germany.⁸⁵ With the support of its Chilean mission, the Colombian government

⁸⁰ Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 135-38.

⁸¹ *Ibid.*, 201-02; Nunn, *Yesterday's Soldiers*, 128-29.

⁸² Richard Kinney Moore, "Soldiers, Politicians, and Reaction: The Etiology of Military Rule in Uruguay" (PhD diss., The University of Arizona, 1978), 40; Peter F. Klarén, "The Origins of Modern Peru, 1880-1930," in *The Cambridge History of Latin America*, ed. Leslie Bethell (New York: Cambridge University Press, 1986), 601.

⁸³ William F. Sater and Holger H. Herwig, *The Grand Illusion: The Prussianization of the Chilean Army* (Lincoln: University of Nebraska Press, 1999), 44.

⁸⁴ Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 138-41.

⁸⁵ *Ibid.*, 203-06; Robert A. Potash, *The Army and Politics in Argentina, 1928-1945* (Stanford: Stanford University Press, 1969), 4; Warren Schiff, "The Influence of the German Armed Forces and War Industry on Argentina, 1880-1914," *The Hispanic American Historical Review* 52, no. 3 (1972), <https://doi.org/10.1215/00182168-52.3.436>; Fernando García Molina, *La prehistoria del poder militar en la Argentina: La profesionalización, el modelo alemán y la decadencia del régimen oligárquico* [The prehistory of military power in Argentina] (Buenos Aires: Eudeba, 2010), 47-65.

established several institutions to train military officers and adopted meritocratic criteria for promotion.⁸⁶

Most South American countries also imported a massive amount of foreign weaponry during this period. In the 1890s, for example, Chile undertook a major purchase of Krupp artillery, along with 100,000 Mauser rifles—it also signed contracts to import 15 million Deutschmarks of further German weapons, planning to equip a standing army of 150,000 men.⁸⁷ In 1889, Argentina acquired 60,000 German Mauser rifles and in 1894, when tensions with Chile were high, it purchased so much equipment that, according to one high-ranking military official, it could “burn half of Chile.”⁸⁸ During the early 1900s, Brazil also purchased several hundred thousand Mauser rifles as well as Krupp cannons from the Germans,⁸⁹ whereas Uruguay imported Krupp cannons, Colt and Maxim machine guns, and enough Mauser and Remington rifles to arm 50,000 men.⁹⁰

⁸⁶ Roberto Arancibia Clavel, *La influencia del ejército chileno en América Latina, 1900-1950* [The influence of the Chilean army in Latin America] (Santiago: Centro de Estudios e Investigaciones Militares, 2002), 385-86; Adolfo León Atehortúa Cruz and Humberto Vélez, *Estado y fuerzas armadas en Colombia (1886-1953)* [The state and the armed forces in Colombia] (Bogotá: Tercer Mundo Editores, 1994), 60-63; Christopher Michael Cardona, "Politicians, Soldiers, and Cops: Colombia's *La Violencia* in Comparative Perspective" (PhD diss., University of California, 2008), 88-91.

⁸⁷ Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 134.

⁸⁸ Gilberto Ramírez Jr., "The Reform of the Argentine Army" (PhD diss., University of Texas at Austin, 1987), 183; Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 198.

⁸⁹ Frank D. McCann, "The Formative Period of Twentieth-Century Brazilian Army Thought, 1900-1922," *The Hispanic American Historical Review* 64, no. 4 (1984): 746, <https://doi.org/10.1215/00182168-64.4.737>; Frederick M. Nunn, "Military Professionalism and Professional Militarism in Brazil, 1870-1970," *Journal of Latin American Studies* 4, no. 1 (1972): 35, doi:10.1017/S0022216X0000167X; Resende-Santos, *Neorealism, States, and the Modern Mass Army*, 252-53.

⁹⁰ Somma, "When the Powerful Rebel," 160; Milton I. Vanger, *José Batlle y Ordoñez of Uruguay: The Creator of his Times, 1902-1907* (Cambridge: Harvard University Press, 1963), 89, 95; López Chirico, *Estado y fuerzas armadas en el Uruguay*, 42.

Venezuela similarly strengthened its military by purchasing Mauser rifles, Krupp artillery and Hotchkiss machine guns, among other weapons.⁹¹

South American governments also took steps to gain a monopoly on the use of force by restricting arms imports by non-governmental entities and by asserting control over or eliminating regional and private militias. These measures were also driven in part by international competition, which put pressure on military organizations to become more centralized and cohesive in order to prevent autonomous forces from being coopted by foreign foes and used as fifth columns. Culminating a process of centralization of the armed forces that started during the War of the Triple Alliance, the Argentine government passed a law in 1880 that prohibited “provincial authorities from forming military forces.”⁹² It also dissolved the National Guard, and integrated it into the army as a reserve force, boosting its numbers by 65,000 men.⁹³ Countries that were further away from the intense competition of the Southern Cone were slower to centralize military power but they would eventually implement similar reforms. The Colombian government initiated a program in the early 1900s to collect the many weapons its citizens had stockpiled during the War of a Thousand Days (1899-1902) and earlier. By 1909, this program had collected 65,505 guns and 1,138,649 bullets, making it more difficult for potential rebels to arm themselves.⁹⁴ Similarly,

⁹¹ Scheina, *Latin America's Wars*, 248; Tomás Straka, "Guiados por Bolívar: López Contreras, bolivarianismo y pretorianismo en Venezuela," [Guided by Bolívar: López Contreras, Bolivarianism and praetorianism in Venezuela] in *Militares y Poder en Venezuela*, ed. Domingo Irwin and Frédérique Langué (Caracas: Universidad Católica Andrés Bello, 2005), 103; Eduardo C. Schaposnik, *La democratización de las fuerzas armadas venezolanas* [The democratization of the Venezuelan armed forces] (Caracas: Instituto de Investigaciones Sociales, 1985), 20.

⁹² Hilda Sabato, "¿Quién controla el poder militar? Disputas en torno a la formación del estado en el siglo XIX," [Who controls military power? Disputes surrounding the formation of the state in the 19th century] in *La construcción de la nación argentina: El rol de las fuerzas armadas*, ed. Oscar Moreno (Buenos Aires: Ministerio de Defensa, 2010), 137.

⁹³ Nunn, *Yesterday's Soldiers*, 48.

⁹⁴ Charles W. Bergquist, *Coffee and Conflict in Colombia, 1886-1910* (Durham: Duke University Press, 1978), 225; Ricardo Esquivel Triana, *Neutralidad y orden: Política exterior y militar en*

Venezuela restricted the extent of weapons available to private citizens and subnational states in the early 20th century,⁹⁵ and in 1919, it abolished state militias.⁹⁶

Although the strengthening of South American militaries was mostly driven by international threats, it deterred internal revolts because would-be rebels knew that they had little chance of prevailing over a properly manned and equipped professional military. In 1911, for example, some warlords belonging to the opposition Blanco party in Uruguay sought to carry out a revolt, but the leadership of their party blocked them, stating that the rebels would be at a “notorious disadvantage,” given the strengthening of the military which was evidenced by the disastrous failure of previous revolts.⁹⁷ Similarly, in 1917, the Blanco leader Basilo Muñoz persuaded the party to sign a pact with the government and compete in elections because armed revolt would be futile.⁹⁸ In Colombia as well, the professionalization of the military at the outset of the 20th century, deterred revolts that had been commonplace during the 19th century. Many Liberals wanted to rebel in response to the widespread fraud in the 1922 elections, but General Benjamín Herrera, the Liberal leader and presidential candidate that year, dissuaded them in part because the country’s strengthened military gave them little hope of success.⁹⁹

Colombia, 1886-1918 [Neutrality and order] (Bogotá: Pontificia Universidad Javeriana, 2010), 265; Adolfo León Atehortúa Cruz, *Construcción del ejército nacional en Colombia, 1907-1930* [The construction of the national army in Colombia] (Medellín: La Carreta Editores, 2009), 21.

⁹⁵ Brian S. McBeth, *Dictatorship and Politics: Intrigue, Betrayal, and Survival in Venezuela, 1908-1935* (Notre Dame: University of Notre Dame Press, 2008), 6, 79-80.

⁹⁶ Howard I. Blutstein et al., *Venezuela: A Country Study* (Washington: Government Printing Office, 1985), 248; Schaposnik, *La democratización de las fuerzas armadas venezolanas*, 21.

⁹⁷ Milton I. Vanger, *The Model Country: José Batlle y Ordoñez of Uruguay, 1907-1915* (Hanover: The University Press of New England, 1980), 151-52.

⁹⁸ Milton I. Vanger, *Uruguay's José Batlle y Ordoñez: The Determined Visionary, 1915-1917* (Boulder: Lynne Rienner, 2010), 232.

⁹⁹ Anthony P. Maingot, "Colombia: Civil-Military Relations in a Political-Culture of Conflict" (University of Florida, 1967), 165-66.

As a result of the strengthening of the military, the number of outsider revolts fell from 22 per decade between 1830 and 1899 to nine per decade between 1900 and 1929. Revolts from outside the state apparatus declined in large part because political outsiders recognized they had little chance of success against the professionalized militaries. Popular uprisings had always been highly unlikely to overthrow the government in South America and none did so after 1900, but factional rebellions also became increasingly unlikely to prevail. Between 1900 and 1929, only five factional rebellions succeeded in overthrowing the government, whereas 38 had done so between 1830 and 1899. Moreover, four of the five successful factional rebellions between 1900 and 1929 occurred in the South American countries with the weakest militaries.

By contrast, the strengthening and professionalization of the military did not lead to a concomitant reduction in insider revolts, such as military coups, because such revolts remained relatively likely to succeed. There were approximately six onsets of insider revolts per decade between 1900 and 1929, down only slightly from an average of seven per decade between 1830 and 1899. Many of these insider revolts succeeded in taking power, which encouraged military officers to continue to undertake them. Indeed, military coups actually became more likely to succeed in the 20th century, presumably because the professionalization of the military and the weakening of the private and regional militias strengthened the military's hand. Whereas 66 percent of major military coups succeeded in overthrowing the president between 1830 and 1899, 81 percent of them did so between 1900 and 1929.

In those nations with the strongest militaries, outsider revolts almost entirely disappeared in the 20th century, although insider revolts continued to occur occasionally. Partly as a result of its military buildup, Chile experienced no outsider revolts during the first three decades of the 20th century, although it did experience a couple of military coups. Argentina had the most revolts of

any South American country during the 19th century, but its enormous military buildup during and after the War of the Triple Alliance helped deter revolts in the 20th century. It only experienced one factional rebellion, the Radical revolt of 1905, during the first three decades of the 20th century, and this revolt was quickly squashed.¹⁰⁰

Not all South American countries developed strong militaries during the early 20th century, however. Ecuador and Paraguay, which were among the smallest and poorest of the South American countries, took only meager steps to professionalize their militaries during this period. Their armed forces remained politicized, fragmented, poorly trained and under equipped.¹⁰¹ As a result, both of these countries continued to be plagued by revolts.

Paraguay suffered the most revolts, experiencing seven factional rebellions and seven military coups between 1900 and 1929, several of which were successful. Overall, the number of revolt onsets and revolt-years more than tripled compared to the 19th century. The explanation for this reversal is straightforward: the Paraguayan military was destroyed in the War of the Triple Alliance (1864-70). Whereas Paraguay had some 40,000 soldiers before the war and mobilized 70,000 troops at the height of hostilities, by the time occupation forces left in 1876, its army had

¹⁰⁰ Although the Radicals were an opposition party and their main leaders were not state officials, they sought military support for their 1905 revolt as they had in previous rebellions. The failure to obtain sufficient support from the armed forces doomed the rebellion, however. Argentina also experienced several major labor protests in the early 20th century that turned violent, but these were easily repressed by the military as well.

¹⁰¹ Luis N. Bareiro Spaini, *Las fuerzas armadas y su profesionalidad: realidad y perspectivas* [The armed forces and their professionalism] (Asunción: Intercontinental Editora, 2008); Arancibia Clavel, *La influencia del ejército chileno*, 267; John Samuel Fitch, *The Military Coup d'Etat as a Political Process: Ecuador, 1948-1966* (Baltimore: The Johns Hopkins University Press, 1977), 16; Remigio Romero y Cordero, *El ejército en cien años de vida republicana, 1830-1930* [The army in one hundred years of republican life] (Quito: Centro de Estudios Históricos del Ejército, 1991), 380-83; Paul H. Lewis, *Political Parties and Generations in Paraguay's Liberal Era, 1869-1940* (Chapel Hill: University of North Carolina Press, 1993), 133.

declined to a mere 400 men.¹⁰² The conflagration also affected the country's territory and demographics—some historians estimate it lost half of its territory and up to 60-70 percent of its population,¹⁰³ which severely hampered Paraguay's capacity to exploit lucrative pre-war yerba mate and timber booms.¹⁰⁴ In the decades that followed the country lacked the will and the resources to rebuild a severely factionalized military. According to Warren, during this period, "Paraguay's armed forces were hardly sufficient to maintain internal order."¹⁰⁵ As late as the 1920s, the country still lacked anything resembling a professional army because of decades of political manipulation of promotions and assignments.¹⁰⁶ Paraguay did not take important steps to strengthen its military until the mid-1920s when a growing conflict with Bolivia, which ultimately led to the Chaco War (1932-35), prompted the Paraguayan government to purchase foreign weapons, reorganize its general staff and contract first a French military mission and then an Argentine mission.¹⁰⁷

The Ecuadorian government, meanwhile, downsized the military considerably after its defeat in the Ecuadorian-Colombian War (1863).¹⁰⁸ A cacao boom helped the Ecuadorian government fund some efforts to professionalize its military in the early 20th century, however. In

¹⁰² Osvaldo Kallsen, *Historia del Paraguay contemporáneo* [History of contemporary Paraguay] (Asunción: Imprenta Modelo, 1983), 33.

¹⁰³ Whigham, *The Paraguayan War*; Thomas L. Whigham and Barbara Potthast, "The Paraguayan Rosetta Stone: New Insights into the Demographics of the Paraguayan War, 1864-1870," *Latin American Research Review* 34, no. 1 (1999), doi:10.1017/S0023879100024341.

¹⁰⁴ Schenoni, "Bringing War Back In."

¹⁰⁵ *Rebirth of the Paraguayan Republic: The First Colorado Era, 1878-1904* (Pittsburgh: University of Pittsburgh Press, 1985), 31.

¹⁰⁶ Lewis, *Political Parties and Generations*, 133.

¹⁰⁷ Bareiro Spaini, *Las fuerzas armadas y su profesionalidad*, 76-77; Lewis, *Political Parties and Generations*, 142.

¹⁰⁸ Only in the 1930s would Ecuador muster a force of 6,000 soldiers, equivalent to the one that preceded the 1863 conflict. See Peter V. N. Henderson, *Gabriel García Moreno and Conservative State Formation in the Andes* (Austin: University of Texas Press, 2008).

1899 Quito contracted a Chilean military mission to train Ecuadorian officers, created new military schools, and began to send officers to Chile for training.¹⁰⁹ The Ecuadorian military also made military service obligatory, enacted new laws governing promotions and salaries, and purchased military equipment from Chile as well as France and Germany.¹¹⁰ Nevertheless, the reforms took a while to bear fruit, and Arancibia Clavel and Romero y Cordero suggest that the long-term influence of the Chilean mission was relatively superficial.¹¹¹ The Ecuadorian military remained highly politicized and senior Ecuadorian officers continued to be promoted, demoted, and discharged based on their personal and political affiliations.¹¹² Moreover, military budgets were reduced significantly between 1908 and 1913: The size of the standing army was slashed, and military salaries fell behind those of civilian employees.¹¹³ The weakness of the military encouraged the opposition to continue to carry out rebellions and some of these revolts were successful. Rebels overthrew the government in 1906 and 1911, and nearly did so again in the bloody 1911-12 civil war. The military also had a very difficult time suppressing a rebellion that ravaged the province of Esmeraldas from 1913 to 1916. It was only after 1916, that the Ecuadorian military established a monopoly on violence.

The other South American countries fell somewhere in between. Brazil, Bolivia, Colombia, Peru, Uruguay, and Venezuela all took significant steps to expand and modernize their militaries,

¹⁰⁹ Arancibia Clavel, *La influencia del ejercito chileno*, 190-96.

¹¹⁰ Paco Moncayo Gallegos, *Fuerzas armadas y sociedad* [Armed forces and society] (Quito: Corporación Editora Nacional, 1995), 155; Fitch, *The Military Coup d'Etat*, 15; Arancibia Clavel, *La influencia del ejercito chileno*, 212.

¹¹¹ Arancibia Clavel, *La influencia del ejercito chileno*, 267; Romero y Cordero, *El ejército en cien años*, 380-83.

¹¹² Fitch, *The Military Coup d'Etat*, 16.

¹¹³ *Ibid.*; Linda Alexander Rodríguez, *The Search for Public Policy: Regional Politics and Government Finances in Ecuador, 1830-1940* (Berkeley: University of California Press, 1985), 225.

but later and on a smaller scale than Argentina and Chile. Nevertheless, with the exception of Bolivia, their militaries gradually became stronger and far exceeded those of Ecuador and Paraguay in terms of their capabilities. As a result, these nations made at least some progress in reducing outsider revolts in the early 20th century (see **Figure 4**).

A statistical test of the argument

In this section we provide a summary statistical test of the impact of military strength on outsider revolts using panel data from ten South American countries. Our outcome of interest is a count variable that measures the number of outsider revolts in a given country year, employing our original data, which covers the entire period from 1830 to 1929. We use a series of Poisson regressions with two-way fixed effects and clustered standard errors, following established procedure.¹¹⁴ We also carried out some robustness checks in analyses described in the appendix.

We measure military strength and professionalization in three different ways. First, we use a variable for the number of military personnel (in thousands) from the index of national material capabilities of the Correlates of War Project.¹¹⁵ Second, we include a measure of the number of military academies compiled by Toronto.¹¹⁶ Third, we employ a variable (*v2stcritapparm*) from the Varieties of Democracy Project on appointment decisions in the armed forces.¹¹⁷ This variable ranges from 0 (none of the appointments are based on skill and merit) to 4 (all of them are). The

¹¹⁴ Joshua D. Angrist and Jörn-Steffen Pischke, *Mostly Harmless Econometrics* (Princeton: Princeton University Press, 2009).

¹¹⁵ Correlates of War Project, National Material Capabilities, 2020, <https://correlatesofwar.org/data-sets/national-material-capabilities>.

¹¹⁶ Nathan W. Toronto, "Why Professionalize? Economic Modernization and Military Professionalism," *Foreign Policy Analysis* 13, no. 4 (2017).

¹¹⁷ Varieties of Democracy Project, V-Dem Data Set - Version 10, 2020, <https://www.v-dem.net/en/data/data-version-10/>.

coverage of these variables is slightly more limited between 1830 and 1845 for most countries, resulting in an unbalanced panel. However, except for Uruguay, all countries enter the panel by 1854, and no observations drop due to attrition after a country enters the sample. When we include confounders, missingness follows the same pattern but is very marginal, forcing us to drop only fifteen early observations.

Model 1 includes only the military variables, uses two-way fixed effects to control for time and country invariant confounders, and reports standard errors clustered by country. Model 2 includes potential time-variant and country-variant confounders. Our military variables are related to other variables—such as economic growth and international conflict—which could shape the likelihood of revolts. It is therefore key to control for these confounders. Since export booms can affect the size and quality of the military, as well as the propensity of outsiders to rebel, we include a variable measuring total exports in current US dollars from Federico and Tena.¹¹⁸ Relatedly, the expansion of railroads and telegraphs might have facilitated both economic growth and military recruitment, and increased the reach of state authorities, narrowing opportunities to rebel. We therefore account for the miles of railway track and telegraph lines in each country.¹¹⁹ To measure the potential impact of international conflict, we include a yearly count of the militarized interstate disputes each state was involved in,¹²⁰ as well as a dummy variable capturing whether the country lost an international war in the past fifteen years.¹²¹ In addition, we include a series of controls that

¹¹⁸ Giovanni Federico and Antonio Tena-Junguito, "World Trade, 1800-1938: A New Data Set," *European Historical Economics Society, Working Paper*, no. 93 (2016), <https://EconPapers.repec.org/RePEc:hes:wpaper:0093>.

¹¹⁹ Arthur S. Banks and Kenneth Wilson, Cross-National Time-Series Data Archive, 2014, <https://www.cntsdata.com/>.

¹²⁰ Glenn Palmer et al., "The MID5 Dataset, 2011-2014: Procedures, Coding Rules, and Description," *Conflict Management and Peace Science* 39, no. 4 (2022), <https://doi.org/10.1177/0738894221995743>.

¹²¹ Schenoni, "Bringing War Back In."

are common in the political violence literature. To control for the effect of hybrid regimes on political violence we use the Electoral Democracy Index ($v2x_polyarchy$) from the Varieties of Democracy Project and its squared term.¹²² We also use an urbanization rate variable ($e_miurbani$) and the log of the population from the Varieties of Democracy Project since outsider revolts and many of the aforementioned variables—e.g., military size—would presumably be affected by socioeconomic modernization and population size. Finally, we include the years elapsed since independence—and drop year fixed effects—in model 3 to test if revolts declined simply as a function of time.

Unfortunately, the scarcity of data for nineteenth-century Latin America precludes controlling for other potential confounders. For example, there is no comprehensive time-series data on inequality or economic performance for this period. Nor is there reliable time-series data on the time-varying ethno-racial composition of South American countries or the relative strength of Liberal and Conservative parties during the 19th and early 20th century. Nevertheless, we trust our use of country fixed effects should control for most of these unobservable characteristics that change slowly over time. The roughness of the terrain, which is also a prominent confounder in the civil war literature, is one of these time invariant factors. Similarly, we trust that our year fixed effects will control for international shocks that affected all countries equally, such as commodity prices and global financial crises, among others. In Model 4 we make an exception and test the robustness of our results to an important remaining confounder: GDP per capita. We use a measure in real 2011 dollars ($cgdppc$) from the Maddison Project.¹²³ GDP per capita is perhaps the most significant predictor of political violence in the literature and therefore we decide to include it in

¹²² *V-Dem Data Set - Version 10*.

¹²³ Jutta Bolt et al., "Rebasing 'Maddison': new income comparisons and the shape of long-run economic development," *Maddison Project Working Paper* 10(2018).

this model. However, data is missing for numerous country-years, so model 4 should be viewed with some caution.¹²⁴

Table 1 presents the results. In almost all models the size of the military, the number of military academies, and the extent to which appointment decisions in the armed forces are meritocratic have a negative and statistically significant impact on the number of revolts in each year. The only exception is model 4. When GDP per capita is included in the analysis, the number of military academies ceases to be significant, but this could be explained by the reduced number of observations in this model. Most of the other variables have the expected sign, but do not achieve statistical significance in any of our models. The minimal change in the R-squared statistics when confounders are included in Model 2 suggests that military variables explain most of the variance in the outcome. With observational data, endogeneity issues will inevitably remain a concern, but this should be taken as a strong indication that military strength might be mediating the impact of more structural geopolitical and economic variables, just as our historical review of the South American case suggested. Further model specifications confirm this intuition. For example, when we drop all three military variables, one of the confounders, total exports, becomes significant (at $p < .05$). This suggests the effect of export booms runs through military strength. For the result of these models and further information, see our appendix.

Figure 6 presents the same results in odd ratios, which are easier to interpret substantively. Military factors render a significant odds ratio of around .7 which is rather consistent across all three variables and four models. This means that the chances of experiencing a new major outsider

¹²⁴ We interpolated missing years for the GDP per capita variable, but in some cases the absence of data prevented interpolation resulting in the non-random loss of 80 observations. In Model 4 the number of observations declines to 695 and Paraguay drops out of the analysis altogether because it lacks GDP data for the entire 1830-1929 period.

revolt in South America decreased by 30 per cent with every additional 10,000-soldier increase in the size of the national military, as well as with every substantive increase in the meritocracy of the military (one point on the V-Dem scale), and with every new military academy. Overall, this statistical analysis of the determinants of revolts in South America between 1830 and 1929 provides support for the argument that military size and professionalization reduced the prevalence of outsider revolts. Military strength does not have an impact on the likelihood of insider revolts such as coups and mutinies, however. As expected, when we switch the dependent variable from major outsider revolts to major insider revolts—i.e., coups—none of the military variables achieve statistical significance in any of the models.¹²⁵ Although military strength effectively deterred regime outsiders from mounting rebellions, it clearly did not have the same impact on regime insiders.

Conclusion

This paper provides the first systematic cross-national analysis of the causes of the dramatic decline in revolts that occurred in South America from the 19th to the 20th century. We show that the expansion and professionalization of the military significantly reduced revolts by political outsiders in the region. The importance of this decline is clear: it vastly reduced the number of lives lost to violence, brought greater political stability to the region, and helped pave the way for a lengthy period of economic growth and state building. Military professionalization also laid the groundwork for the first wave of democratization in the region, by encouraging opposition parties to abandon the armed struggle and focus on the electoral path to power. Increased military

¹²⁵ Results not shown, but available on request.

strength, however, did not reduce insider revolts such as military coups, which continued to undermine political stability and eventually democracy in the region.

Surprisingly, there has been relatively little cross-national research into the causes of this major historical turn or, for that matter, other region-wide declines in internal political violence. By providing comprehensive data on these rebellions and a systematic analysis of their causes, this article seeks not only to shed light on a critical juncture in Latin American political development, but also to stimulate more research on such regional dynamics.

The findings of our study are consequential for the political science literature on conflict which remains largely segmented into analyses of coups, civil wars, and similarly rigid and narrow categories. Our long-term historical analysis, which draws on the work of historians, suggests that political scientists might want to consider revolts as a broader category of political violence, one that disregards battle-death thresholds and political goals and comprises all instances of the use or threat of violence by political groups that defy the authority of the state. We have demonstrated the feasibility and benefits of this approach. Our inclusive typology and comprehensive coverage of revolts enable us not only to grasp the full extent of political violence in South America, but also illuminate a range of theoretically insightful points about the distinct causes of specific revolt types. Our historical study of South America also highlights a new category of revolts—rebellions led by elites from outside the state—that were widespread in the region during the 19th century.

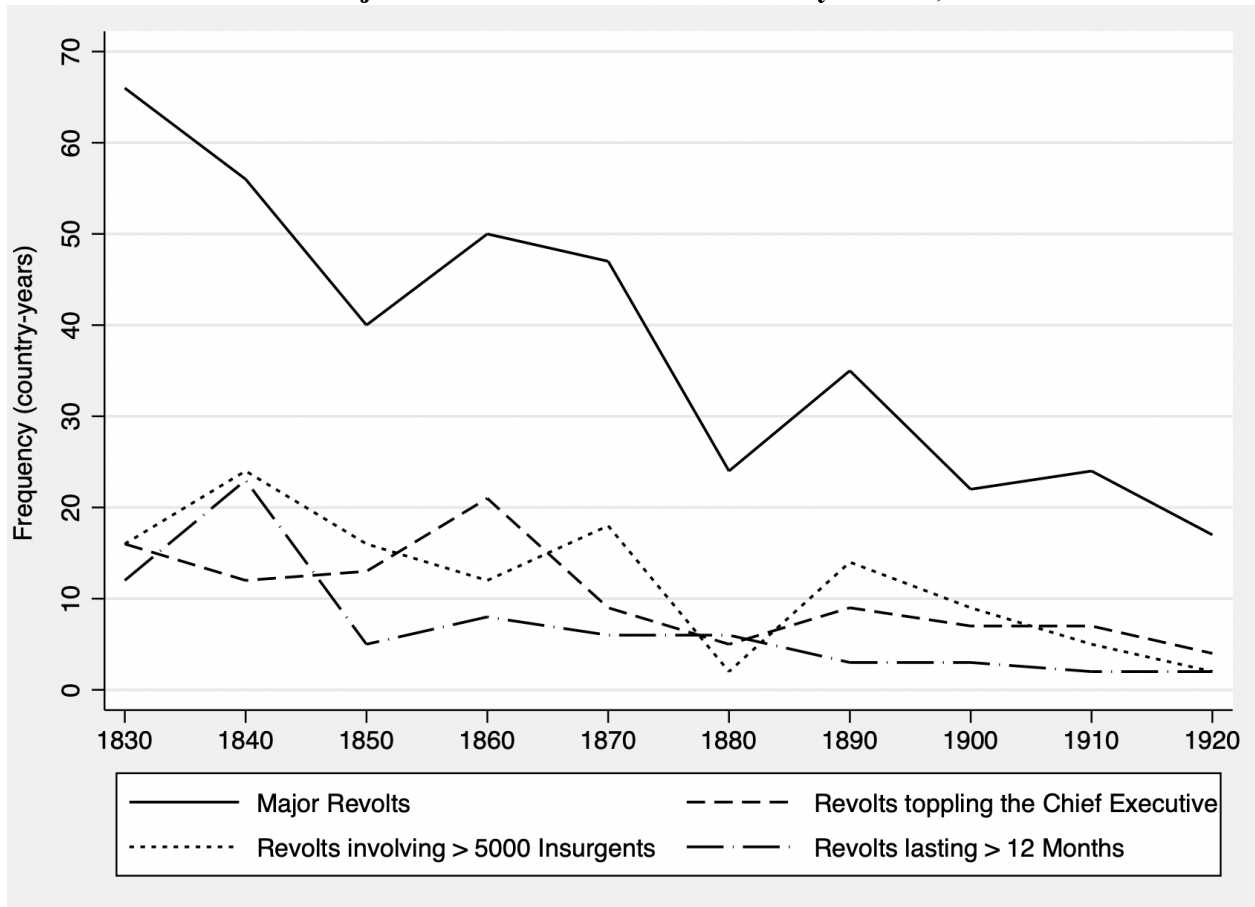
This article brings to the conflict literature one hundred years of history in a region equivalent to a considerable portion of the international system at the time. This amounts to a major empirical contribution to the study of political violence in general. Future research could use our newly generated data set to further explore the causes and consequences of revolts. Scholars could employ the database to examine the determinants of insider rebellions, such as

coups and mutinies. Similarly, they could analyze under what circumstances revolts lead to the overthrow of presidents or to large numbers of casualties.

By highlighting the importance of military strength in the decline of revolts, this article also provides a valuable addition to the growing body of literature that attributes political violence to the deficiencies of the state. It does so by offering a compelling historical narrative and by demonstrating statistically that our measures of military size and professionalization outperform other typical explanations of political violence, including the usual measures of state infrastructural capacity. The causal pathway that our theory lays out (in which exogenous international shocks, such as export booms and international conflict, lead to the diffusion of military strength throughout the region) also provides a compelling explanation for a relatively understudied phenomenon: the simultaneous decrease of political violence throughout a region.

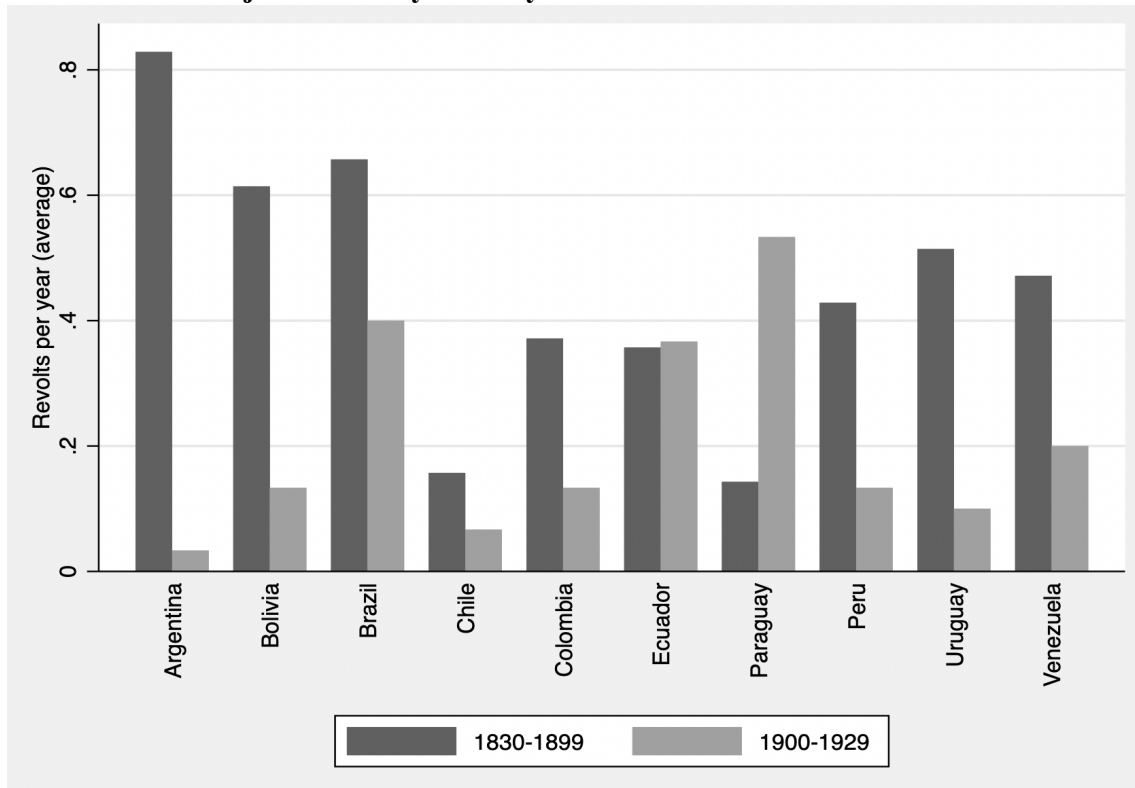
We hope our approach will inspire others to examine whether similar patterns of conflict are present in other regions and time periods as well. Indeed, the small size and lack of professionalization of the armed forces can presumably help explain why newly independent countries in Africa and Asia were plagued by outsider revolts after independence in the 20th century. It can also explain why these rebellions decreased abruptly when geopolitical pressures compelled states to strengthen their militaries.

Figure 1
Decline of major rebellions in South America by decade, 1830-1929



Source: Elaborated by the authors.

Figure 2
Major revolts by country in the 19th and 20th centuries



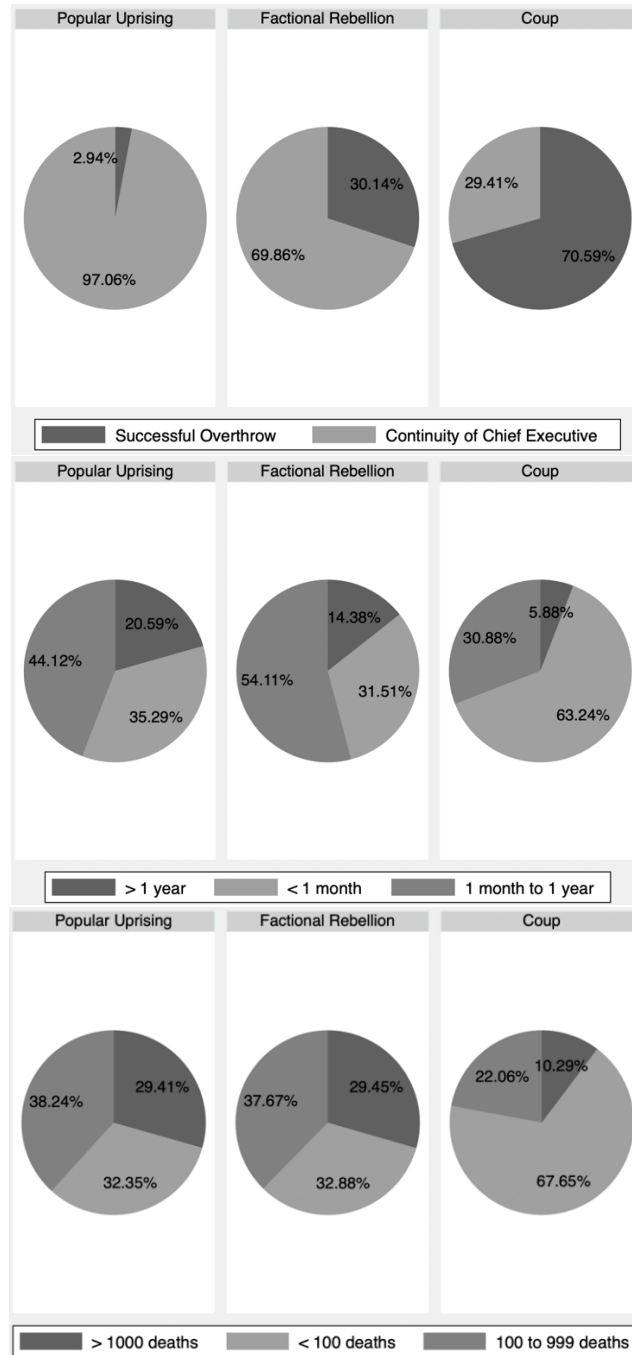
Source: Elaborated by the authors.

Figure 3
A Typology of Revolts Based on the Origins of their Leaders

		Position of Rebel Leaders vis-à-vis the State Apparatus	
		Insiders	Outsiders
Socio-economic Position of Rebel Leaders	Elites	Coup	Factional Rebellion
	Masses	Mutiny	Popular Uprising

Source: Elaborated by the authors.

Figure 4
Characteristics of major revolts by type of rebellion, 1830-1929



Source: Elaborated by the authors.

Figure 5
Frequency of major insider and outsider revolts by decade, 1830-1929



Source: Elaborated by the authors.

Table 1
Determinants of Outsider Revolts in South America, 1830-1929
(Poisson regressions on number of revolts per year)

	Model 1	Model 2	Model 3	Model 4
Military personnel (in 10,000)	-0.358* (0.16)	-0.368* (0.17)	-0.350* (0.16)	-0.309* (0.13)
Number of military academies	-0.390* (0.16)	-0.427* (0.21)	-0.381* (0.18)	-0.299** (0.09)
Military appointments by skills and merit	-0.549* (0.23)	-0.581** (0.23)	-0.336* (0.16)	-0.395 (0.32)
Urbanization rate		-0.049 (0.56)	0.032 (0.47)	-0.522 (0.55)
V-Dem electoral democracy index		-0.466 (0.38)	-0.320 (0.44)	-0.534 (0.38)
V-Dem electoral democracy index ²		0.106 (0.09)	0.092 (0.10)	0.121 (0.10)
Militarized interstate Disputes		0.178 (0.17)	0.178 (0.16)	0.194 (0.16)
Defeat in international war (15-year period)		-0.106 (0.26)	0.166 (0.42)	-0.137 (0.29)
Total exports		-0.178 (0.33)	-0.666 (0.54)	-0.150 (0.31)
Hundreds of miles of telegraph lines		0.279 (0.21)	0.095 (0.23)	0.353 (0.24)
Hundreds of miles of railway track		-0.052 (0.12)	0.067 (0.15)	-0.091 (0.13)
Population (log)		-0.005 (0.09)	0.008 (0.08)	0.060 (0.11)
Years since Independence			-0.010 (0.01)	
GDP per capita				-0.000 (0.00)
Constant	-3.761 (6.34)	-1.317 (13.99)	12.938 (6.96)	-7.160 (8.62)
Pseudo r-squared	0.2252	0.2344	0.1371	0.2540
Fixed effects	Two-way	Two-way	Country	Two-way
Standard errors	Clustered	Clustered	Clustered	Clustered
N of observations	800	775	775	695

Standard errors in parentheses. Country and year dummies not shown.

* $p < .05$; ** $p < .01$; *** $p < .005$

Figure 6
Coefficient plot with model results in odds ratios

