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Forced Labor in Colonial Spanish America

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Abstract

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Forced Labor in Colonial Spanish America¹

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Abstract

The Spanish colonial empire initially faced a trilemma in the New World. First, they needed to incentivize quasi-private Spanish expeditions to subdue, settle, and secure new territories. Second, they needed labor to develop the new territories and provide a stream of rents for the imperial government. Third, they needed to ensure that the Spanish colonists did not grow powerful enough to challenge imperial authority. We show how the Spanish solved this trilemma in three ways, all involving forced labor: (1) transplanting Iberian institutions; (2) repurposing existing pre-Columbian institutions; (3) importing African slaves. We present evidence that over time forced labor in Spanish America underwent an endogenous process of decay as power slowly shifted from the Spanish-American colonial elite to indigenous labor. The end result was the increasing dominance of wage labor on the American mainland, leaving most forced labor arrangement either moribund or in decay by the time the empire collapsed. The commodity boom around the circum-Caribbean combined with geographic factors explains why this process was slower there (and short-circuited entirely in the case of Cuba).

"The Indians of Hispaniola were and are its very wealth, because they are the ones who till the land, provide the bread and other victuals for the Christians, dig the mines for gold, and do all the work which men and beasts usually do." Columbus (1505), cited by Bartolomé de las Casas

1. Introduction

In 1976, the historian Moses Finley wrote, "It is not too paradoxical to insist that, in the context of universal history, free labour, wage labour, is the peculiar institution." The Spanish empire in the New World was no exception to this adage. The Spanish colonizers sought to mobilize local labor for their own ends. This mobilization did not take the form of hiring indigenous laborers on a free labor market. Rather, the Spanish (and their

¹ We would like to thank Miguel Angel LaFuente Navarro for his insights and John Wallis, Tom Currie, and José-Antonio Espin-Sánchez for their comments.

local collaborators) used violence or the threat of violence to compel indigenous people to provide labor under conditions that they would otherwise reject.

Forced labor, however, exists on a continuum (see Table 1). On one end is chattel slavery, as practiced in the U.S. South before 1860. On the other is free labor, but as anyone who has held a job knows, the freedom of an employee to change employment can vary substantially depending on context.

Table 1: Types of forced labor

Slavery	Indentured			
and serfdom	servitude	Apprenticeship	Wage labor	
Permanently bound	Bound until debt	Bound for training	Free to change	
to master	discharged	period	employees	

There is no simple model for when or how much coercion will be employed. Rather, it depends on three things: (1) the degree of labor scarcity; (2) the presence and ease of obtaining outside options; and (3) the efficiency of institutions designed to make it cheaper for "employers" to obtain and control their labor force. In his classic work, Domar (1970) claimed that labor scarcity led to greater coercion. In Domar's model, workers in places where there is little labor relative to land will command high wages. The gains from forcing people to work for you, however, are larger when wages are high. If you can hire someone cheaply enough, then it won't be worth the effort to force them to work for you. But if wages are high enough, then the effort of using force becomes worthwhile. In short, Domar predicted that labor scarcity engenders labor coercion.

Other scholars, however, argued the reverse, that labor scarcity made coercion harder. Postan and Habakkuk (1966) and North and Thomas (1973) postulated that less labor relative to land gives workers more outside options. First, when labor is more valuable, potential employers will be willing to undercut each other in order to gain access to it. Second, when land is wide open, it is easier to escape coercive arrangements and find alternative ways to survive. As it becomes easier for workers to find outside options, it also becomes costlier to control them. That in turn means that forcing people to work for you becomes less worth the effort. Acemoglu and Wolitzky (2011) showed that both outcomes are possible: the extent of coercion depends on the worker's outside options and labor scarcity.

Labor coercion took three different general forms. To coerce native labor, the Spanish repurposed old Iberian models and existing indigenous institutions. From Iberia, the Spanish adapted an institution called the encomienda. Under the encomienda, Spanish authorities entrusted indigenous communities to an "encomendero," who was putatively responsible for Christianizing and protecting the people under his control. In return, the encomendero was entitled to tribute in the form of goods, labor, or (later) money. In Peru, the Spanish took over and altered an indigenous labor draft that came to be called the mita. Under the mita, the Spanish viceregal government subjected various indigenous communities to a centralized labor draft.² The draftees were then used for various purposes, but mostly to provide workers to faraway mines. Finally, the Spanish employed African slavery.

The Spanish, however, did not impose forced labor upon a passive population in an unchanging environment. Economic changes, population changes, political conflicts, and negotiations among colonial elites led to the gradual weakening of both forced labor and the elites which benefitted from it. First, an expanding agricultural frontier and the creation of dynamic urban economies caused outside options to multiply. Second, the costs of control increased over time. As outside options increased, laborers found it increasingly easy to migrate in order to escape onerous labor obligations. In turn, as labor became scarcer, local communities challenged forced labor, which added to the costs of control. Finally, the Spanish imperial government feared the emergence of a class of American nobility that might declare independence. As a result, it slowly acted to limit the scope and authority of the encomenderos, further weakening one of the key forced labor institutions in Spanish America. There was one exception to forced labor's decline: chattel slavery in the Caribbean and parts of coastal New Granada. The proximate reason was the rise of sugar and the commensurate rise in the profitability of forced labor. The Caribbean islands (and the coastal regions of New Granada) had few local labor supplies and their geographic isolation meant that the costs of control remained relatively low. As a result, slavery boomed there in the late colonial period even as it declined precipitously in the more central parts of the Spanish Empire. Nonetheless, by the time the Spanish empire collapsed in the early 19th century, the most common labor arrangement was some form of wage labor ... and that, more than the grand changes in the form of forced labor, represented a revolution in human affairs.

This overview proceeds as follows. Section 2 outlines the problems faced by the Spanish empire in controlling and exploiting its vast new territories and how forced labor provided a solution. It then overviews the Iberian and pre-Hispanic institutions that the Spanish employed to control the American labor force, including the importation of slaves from Africa. Section 3 turns to the period after 1650 and explains the endogenous decline of forced labor (in all three forms) on the mainland. Forced labor slowly collapsed under its own weight, as the changing economic, demographic, and social conditions raised its costs relative to its benefits. We also discuss the Caribbean exceptions:

 $^{^{2}}$ In Mexico, the Spanish took over local pre-Hispanic labor obligations under the rubric of the encomienda.

the Spanish West Indies, the Yucatán peninsula, and parts of coastal New Granada. Section 5 concludes.

2. Solving the Spanish colonial problem, 1492-1650

The search for new trade routes to Asia fueled Spanish westward exploration. But it was the discovery of precious metals in the Americas that sent its imperial expansion into overdrive.³ After Columbus discovered gold in Hispaniola, Spanish expeditions fanned out across the New World in search of precious metals. Within a few decades, the Spanish empire covered a vast area from the Caribbean to Peru (see Figure 1). The question was how to exploit it.⁴

The Spanish imperial authorities faced three interrelated challenges. First, they needed to incentivize Spaniards to settle in their new lands in order to pacify, control, and develop them. Second, they needed labor to exploit their resources. Third, they needed to prevent the new settlers from becoming powerful enough to challenge Spanish authority and potentially break away from the empire. The challenges grew out of the fact that the Spanish empire was a "natural state" in which the Crown did not enjoy a monopoly over violence. In the conquest of the Americas (as during the Iberian *reconquista*), the state possessed neither a *de jure* nor a *de facto* monopoly over the use of violence. The empire needed to create rents for the colonizing elite sufficient to give them incentives to pacify and develop their territories without making them powerful enough to supplant the Crown (North, Wallis and Weingast 2009).

Figure 1: Main political divisions of the Spanish empire, ca. mid 18th century

 $^{^{3}}$ The division of the Spanish and Portuguese empires was also affected by this process. The search – and eventual discovery – of gold in Brazil from the 1690s was the main responsible factor for the pushing of the border with Spanish America many hundreds of miles westward (Boxer 1962, 270). The final borders were much to the west of the 1494 Tordesillas treaty, a fact to which the difficulty of measuring longitude accurately also contributed.

⁴ We have included a brief timeline of Spanish American colonial history in the appendix.



Source: Based on Abad and van Zanden (2016) and Instituto Geográfico Militar (2015).

The cash-strapped Spanish state did not conquer its empire in New World with taxpayer-funded professional armies. Rather, it used private expeditions loosely sanctioned by the Crown in order to subdue new territories and establish permanent settlements that could cement Spanish control and defend against incursions by other European powers. These private expeditions were in turn organized by military "entrepreneurs" who mostly financed their own efforts. The imperial government therefore needed to create structures that would ensure that the private expeditions' returns would be generated and in large part *consumed* in the New World — the Spanish empire needed settlers and occupiers, not just conquerors.

Indigenous labor was the obvious answer to the labor problem, but the Spanish faced a demographic collapse caused by Eurasian diseases, social disruption, and war. The Caribbean islands were decimated while other locales with abundant indigenous labor — such as Mexico and Peru — experienced death tolls between one-third and nine-tenths of their pre-contact populations.⁵ This problem was compounded by the fact that indigenous labor was not always located where the Spanish most needed it to be.

Preventing the settlers from becoming too powerful proved the trickiest problem to solve. Ensuring that the imperial government received its share of the revenues – particularly those related to precious metals – required an increasing level of state intervention and control.⁶ Such intervention, however, antagonized the Spanish colonists who effectively provided security for the empire. The metropole needed to restrict the colonists' power without provoking them into outright revolt. This problem became only more pressing over time, as the Spanish empire became increasingly dependent on the flow of revenue from the Americas to Europe.

Entrusting the empire

The first innovation the Spanish used to solve the imperial trilemma was to repurpose a pre-existing Iberian institution: the encomienda. This institution was developed during the long Reconquista to settle and pacify the reconquered Christian kingdoms. When Iberian monarchs judged it useful, they made temporary grants of territory to the leaders of the military orders which led the fight. These grants put an "encomendero" in charge of governing and defending the territory, in return for a share of the revenues and services due the Crown (Chamberlain 1939, 35-39). In newly occupied areas, the encomenderos also received the right to collect tribute from non-Christians in the form of goods, cash or labor (Maltby 2009, 9). "Encomienda" roughly translated to "trusteeship," as the tributees were "entrusted" into the hands of the encomendero, or "trustee."⁷

The Spanish transferred the encomienda system to the New World with a few modifications. As in Iberia, the Crown granted settlers title to tribute and labor service from indigenous peoples in different locations in the areas they conquered. In exchange, these settlers, the encomenderos, had to educate the local population in the Catholic faith and "protect" them. Unlike in Iberia, however, the American encomenderos could not pass on their labor and tribute rights to their descendants without explicit royal approval.⁸ The

 $^{^{5}}$ The actual magnitude of the demographic collapse in the Americas is contested. For a discussion, see Livi Bacci (2008), Malvido (2006), and Newson (2006).

⁶ For an analysis on labor institutions in colonial Peru, see Abad and Maurer (2020).

⁷ In modern Spanish, "fideicomiso" has replaced "encomienda" to refer to statutory trusts and trusteeships, as the term "encomienda" has acquired an ugly connotation.

⁸ This distinction from Iberia was less than it seems. The original Iberian encomiendas were intended to last only for the life of the recipient. In practice, however, the political chaos and incessant warfare which defined the peninsula meant that the Crown generally allowed encomiendas to be passed on with royal dispensation (Chamberlain 1939, 36).

encomienda system became the backbone of the Spanish colonization of the Americas (Puente Brunke 1990, 383).

The roots of the "Black Legend"

The process of transferring the encomienda system to America was not as clean or clinical as the above paragraphs imply. The encomienda underwent adaptations depending on local conditions. Factors such as the needs of the settlers and the abundance of indigenous labor informed the evolution of the transplanted institution.

The conquest of Hispaniola provoked a complete disaster, culminating in genocide. The Spanish formally introduced the encomienda in 1497. It quickly devolved into absolute servitude leading to the brutal exploitation of the indigenous population. Such mistreatment did not go unnoticed. The clergy, most notably Bartolomé de las Casas, denounced the cruelty meted out in the name of the conquest. In an attempt to curb the excesses, the Crown issued the Burgos laws in 1512 which kept the encomienda but restricted the rights and outlined the obligations of the encomenderos. Nonetheless, royal efforts failed to prevent the Spanish on Hispaniola from enslaving the indigenous population as *de facto* chattel, which culminated in genocide (Zavala 1935, 15-16).

The Spanish repeated the Caribbean disaster in Central America. In 1526, four years after first contact, Spanish representatives convinced two Nicaraguan kingdoms (which practiced a limited form of slavery) to sell them captives taken in war.⁹ These captives were then transported to Panama, where they were used in road construction.¹⁰ The trade was organized: ship manifests indicate that upwards of 99,000 slaves were transported from Nicaragua to Panama between 1530 and 1536. In 1530, the Crown banned the direct enslavement of Indians—but a massive loophole allowed slaves to be purchased from indigenous authorities. In 1542 the imperial government finally banned indigenous slavery altogether. By then, however, Nicaragua had been practically depopulated. In 1548, the Crown appointed Alonso López de Cerrato as governor of the new "Frontier Province" (which subsumed Nicaragua) for the express purpose of stamping out indigenous slavery. Cerrato found that the institution had already mostly disappeared. A survey of Nicaragua conducted in his first year in office found only 11,343

⁹ The rulers of these two kingdoms were named Nicoya, for whom the Nicoya Peninsula in what is now Costa Rica is named, and Nicatlnauac, which the Spanish turned into "Nicarao." Gil González Dávila, the Spanish who led the first expedition, named the country Nicaragua, literally Nicarao's Water, for Lake Nicaragua. The Nicaraguan kingdoms practiced a combination of serfdom and slavery. Slaves were taken in several ways. The wives and children of tributary subjects who fled the territory of their kingdom could be converted into slaves if caught. In addition, several Nicaraguan kingdoms punished theft and poaching in protected hunting and fishing grounds by enslavement. Finally, slaves were commonly taken as booty by the victorious side in war (Maurer and Yu 2010, 18-19).

¹⁰ Later on, Nicaraguan slaves were sold onwards from Panama to Peru.

tributary households remained, containing somewhere between 42,000 to 58,000 individuals (Maurer and Yu 2010, 18-21).

The evidence is that the combination of Cerrato's dedicated efforts to enforce the law and declining populations mostly ended chattel slavery in Central America but other types of forced labor persisted.¹¹ We know, for example, that multiple communities of freed indigenous slaves sprang up during his time in office and persisted thereafter, usually under some form of clerical protection. We also know that tribute obligations came down substantially. In addition, indigenous people became more likely to receive wages for their work and the severity of abuses declined (as recorded in official indigenous complaints to Spanish administrators), but that meant that the labor system converged towards the institutional norms already established in New Spain and Peru. It is to those norms that we now turn.

The encomienda on the mainland

The Spanish empire learned from its disasters in the Caribbean. The conquests of Mexico (1519-21) and Peru (1531-72) were far from orderly, but the Spanish did impose forced labor in those places in a more regulated manner than it had elsewhere.

In Mexico and Peru, the imposition of the encomienda went relatively smoothly in part because the institution paralleled existing tribute mechanisms and labor drafts. The Mexica and their competitors in central Mexico imposed in-kind tribute obligations on local communities, which in turn generally possessed an elite class with the power to demand a limited amount of labor from the peasants under their jurisdiction. In Peru, somewhat similar institutions existed under Inca rule, comprising kin-based territorial units called ayllu.¹²

In Mexico, Captain Cortés was initially opposed to granting encomiendas after witnessing the atrocities in the Antilles. His resistance was short-lived and he soon gave in to the demands of his soldiers (Zavala 1935, 40-43). Later on, he became a fervent defender of the institution. In his view, the encomiendas were the key to politically securing the territory and its subjects. Cortés came to favor perpetual private encomiendas and opposed the royal in-kind tribute due the imperial government, claiming that it would further burden on the indigenous population (Zavala 1935, 50).

In Peru, Pizarro's expedition emulated Cortés with the crown's blessing. Peru's first encomienda dates to 1532. Initially, all encomiendas would last two generations but

¹¹ During Cerrato's time in office, the "Audiencia de los Confines" ran from Panama north to Chiapas. It after 1550 it also included Yucatán until the Crown reorganized it as the "Audiencia de Guatemala" in 1568 and moved Yucatán back to Mexico City's control.

¹² We discuss the compulsory service obligation called the mit'a below.

pressure from Spanish non-encomenderos and the threat to the Crown from the encomendero class prompted the abolition of inheritance in 1542. The encomenderos vehemently and violently opposed this change, prompting civil conflict. The Crown began to grant exemptions and extensions on a discretionary basis (Puente Brunke 1992).

The encomienda's burden fell on all physically healthy indigenous males between 18 to 50 years of age, excluding caciques (local chieftains) and their eldest sons. At its peak, roughly 20% of the indigenous population was subject to the system. In the beginning, encomenderos themselves decided the form and amount of tribute that would be collected, plus a portion due the imperial authorities. The arrangement implied no further obligation, except for Church tithes and (in Peru) the centralized mita labor draft.

The encomienda encouraged the rapid conquest of America at a low fiscal cost. Forced encomienda labor got roads built, Spanish settlers housed and fed, Catholic instruction started and mining exploitation pursued. But it came at a price. First, as one might imagine, it engendered quite a bit of abuse of the local population, if somewhat less than the catastrophic experiences in the Caribbean and Central America. The resulting abuse led to an outcry, most importantly among Catholic clerics. In 1536, the Crown mandated that indigenous people could not be made to provide more in tribute than they had paid to local authorities in pre-Hispanic times. By the 1540s, the viceregal authorities began sending out teams to survey and set tribute levels based on the local population and the prevalent economic activities. The imperial government also fixed the dates when tribute was due and capped the value of in-kind tribute to 2,000 pesos per encomendero (Chamberlain 1939, 26). By the 1550s, royal authorities also began ordering encomenderos to pay nominal wages for the labor services due them from the Indians under their control (Rowe 1957).

Encomienda labor in mining

The thirst for riches in the form of precious metals fueled the conquest of the Americas. Soon after Columbus's arrival in *La Española*, the newcomers spotted evidence of gold. The Spaniards exhausted the gold deposits in the islands before Columbus's death, but they kept on looking for El Dorado. The Spanish discovered silver at Cerro Rico in Potosí (in modern Bolivia) in 1545. The next year the Tolosa expedition discovered silver around Zacatecas, in the Mexican province of Nueva Galicia.¹³ Nine years later, in 1554, the Spanish introduced the patio amalgamation process, which reinvigorated silver production in central Mexico (Chapa 1981, 516). The Crown granted mining exploitation rights to suitable Spanish entrepreneurs, who put up the capital. Fueled by sky-high profits and subject only to a royal tax of 20% of gross production, silver mining became

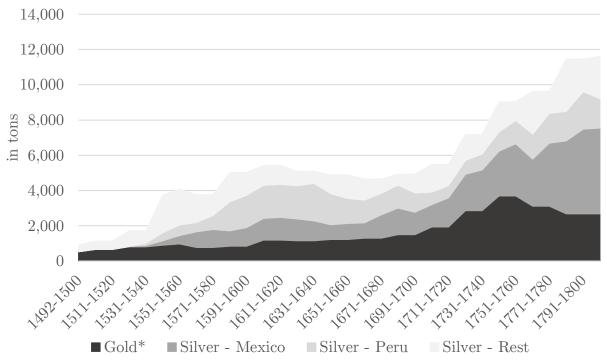
¹³ Nueva Galicia roughly corresponded to the states of Aguascalientes, Jalisco, Nayarit and Zacatecas.

the epicenter of the colonial enterprise (see Figure 2). In turn, Spain became the main supplier of silver in the world. Mexico and Peru produced between 60 and 90 percent of all the silver flowing to Europe (Garner and Stefanou 1993).

Spanish entrepreneurs staffed early small mines in central Mexico and the Caribbean with encomienda labor. After 1545, however, the labor demands of large operations in distant places like Potosí, Huancavelica, and Nueva Galicia rapidly outstripped the supply of local laborers.¹⁴ Encomenderos were reluctant to send their captive labor force hundreds of miles to work in somebody else's mines — and when they did so, they charged the same or higher rates than the wages received by free laborers (West 1949, 48 and 117-18, and Wiedner 1960, 366).¹⁵

Figure 2. Silver and gold production in Spanish America, in metric ton equivalents

¹⁴ The Zacatecas district in Nueva Galicia was essentially unpopulated when the Spanish arrived. In other parts of northern Mexico, particularly around Parral, there were small populations of settled peoples. ¹⁵ Encomienda labor in northern Mexico rapidly become unimportant, but it did not disappear. As late as 1664, the governor of Nueva Vizcaya assigned an encomienda of Concho Indians to work at a smelter in Parral; the governor dispatched a second encomienda in 1667 and there are records of some encomienda labor in the towns of Parral, Cusihuiriáchic and Santa Eulalia. As elsewhere, however, people responded to forced labor by absconding: a Concho chief reported that it was extremely difficult to round up the encomienda quotas because his people had fled. The expanding urban and rural economy in northern Mexico provided too many easily accessible outside options for encomienda labor to remain a major part of the labor force. In addition, it should be noted that encomienda labor assigned to the mines received the same wage as free laborers (West 1949, 117-18).



(*) Gold tons are converted to equivalent in silver using bimetallic prices from Palma (2017) Source: Based on Abad and van Zanden (2016) and TePaske (2010)

Recruiting free labor proved remarkably difficult in both Mexico and Peru, but the difficulties were compounded for the Peruvian mines. First, the silver producers needed to staff the mercury mines at Huancavelica as well as the silver mines, since mercury formed a key input for silver amalgamation. Mercury mining, however, was extremely dangerous, with insanity a common side effect and none of the opportunities to pilfer production provided by silver. Second, as the Peruvian mines expanded into increasingly harder-to-extract deposits, they grew deeper and more dangerous and production required more labor.¹⁶ Mine labor became increasingly unpleasant and local laborers became increasingly unwilling to do it.

The Peruvian mita de minas

The Spanish state could have simply let the mineowners adapt to the situation as best they could. This is in fact what it was forced to do in Mexico, where free labor came to dominate the northern mining industry.¹⁷ Letting economic forces run their course, however, ran the risk of seeing silver production decline as costs escalated.

¹⁶ This occurred in Mexico as well, but a flow of new discoveries as well as a generally less demanding geology lessened the problem.

¹⁷ The viceroyalty of New Spain made several unsuccessful attempts to introduce forced labor in mining in northern Mexico. In central Mexico, conversely, the use of forced labor from nearby communities had not quite disappeared by the end of the colonial era but mineowners were required by law to pay draftees the

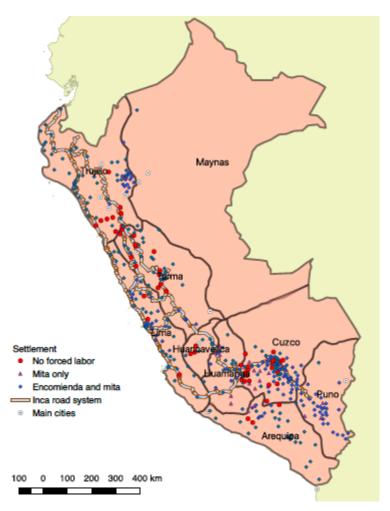
In Peru the Spanish conquered a centrally-planned and extremely hierarchical multinational state (Zulawski 1995). The Inca state (Tawantinsuyu, which roughly translates as "the Four Provinces") administered a compulsory service obligation called the mit'a (Wightman 1990). Most mit'a labor went to work state agricultural lands in the immediate area. Inca mines also generally drew on labor from neighboring provinces. Mining workers served short one-month shifts, mostly because the demand for metals was low (the Incas having only recently entered the Bronze Age) and local areas could easily meet labor needs. For most inhabitants of the empire, the mit'a only sent them outside their locality if male family members were drafted into the army in wartime (Rowe 1957, 246, 268 and 278).

In 1573, Viceroy Francisco de Toledo repurposed the mit'a as the "mita de minas," intended to provide corveé labor for the mines (see Figure 3). The mita became a compulsory draft of one-seventh of the male adult population of subject communities. Mitayos worked weekly shifts (with two weeks rest in-between) for a full year. Under Spanish law, the Crown remunerated the mitayos, but draftees could not in theory quit or refuse to go without punishment (Wiedner 1960).

The mita was neither fully coercive nor universal. As the indigenous population collapsed, Viceroy Toledo prescribed better treatment and compensation for the mitayos including half wages for travel days to the mines. Nor were all settlements within the viceroyalty subject to the mita. Whether and how many laborers local communities had to send depended on proximity to the mines, their population, their precolonial history, and particular political arrangements made with local Spanish administrators (Abad and Maurer, 2020). In addition, as stipulated by the many laws governing the forced labor system, laborers were entitled to compensation for their services. Mitayos were regularly paid cash wages (Bakewell 1984, 101-2).

Figure 3: Forced labor in Peru

same wages as free workers. Violations were generally met by strikes and violence on the part of the forced laborers.



Source: Abad and Maurer (2020)

From a fiscal perspective, the mita was a success. From any other perspective, it was a disaster. Compensation barely covered subsistence needs and physical punishment was common if mitayos failed to meet minimum production quotas. To avoid the draft, many natives fled their original communities, which meant giving up access to their lands. According to Rowe (1957, 172): "The mita of Potosí was both the largest and the most burdensome of the colonial arrangements." While the institution attracted opposition throughout the colonial period, the Crown always opted to protect the fisc: as Cole (1984, 132) put it: "Income first, Indian welfare second."

African slavery in agriculture and mining

African slaves first arrived in the Americas early, first as personal servants. Soon, however, African slaves transplanted from the Canary Islands worked in sugarcane production in *La Española*. Both Cortés and Pizarro had slaves in their expeditionary armies. The riches generated by mining provided the capital needed for Spaniards to import slaves. Initially, Mexico and Peru were the main destinations of African slaves. Mostly concentrated in urban centers, African slaves also figured prominently in gold mining and agriculture. In Peru, by 1550s, half of all slaves in the viceroyalty resided in Lima. The slave population in the capital of the viceroyalty grew hand-in-hand with total population, amounting to a steady share of 50 percent throughout the 17th century (Bowser 1974, 339). While Lima was exceptional, in most urban centers the slave population was at least 10 percent in 1600 (Klein 1986, 28, 32-33, 35). Slavery took hold in coastal areas where depopulation was more acute. African slaves were most beneficial to agriculture, both near major urban centers and in plantations (Bowser 1974, 88).

The other pillar of the empire, New Spain, took around 40 percent of all African slaves transported to Spanish America in the first century after the Conquest.¹⁸ Most African slaves were deployed to silver mines and sugar plantations. As in Peru, coastal regions suffering from the severe demographic collapse turned to African slavery (Carrell 2001, 35). The first sugar mills date back as early as 1530 in the Veracruz area founding the largest plantation — la Santísima Trinidad — in Jalapa (Carrell 2001, 43, 46).

Slavery played significant a role in peripheral parts of the empire. African slaves also fueled the production of sugar cacao in plantations in coastal New Granada. By 1686, for example, the total slave population of the province of Cartagena exceeded the dwindling indigenous population (Navarrete 2005, 163). Venezuela followed a similar path as the low native population density could not support plantation agriculture (Brito Figueroa 1972). In the Spanish Antilles, the slave trade shaped the demographics of the islands, but their economic significance to the empire was minor until the mid-eighteenth century. For example, the net influx of slaves to Cuba, Puerto Rico, and Santo Domingo between 1521 and 1750 came to barely 3 percent of all slaves to the Americas. During that period, Cuba and the rest of the Spanish Caribbean "did not have slaves because it did not need them" (Le Riverend 1974, 212).

African slavery did not, however, play a significant role in the mining industry in either Peru or Mexico. That was not due to a lack of effort on the part of mineowners, who attempted to get around high labor costs by employing African slaves.¹⁹ Fortunately for Mexico and Peru — if unfortunately for the mineowners — they faced three obstacles to using slavery. The first problem was particular to highland Peru, where environmental conditions meant that African slaves suffered much higher mortality in the mines than

¹⁸ Based on *Slaves Voyages*.

¹⁹ Mineowners preferred slaves because unlike free workers, they could not leave to search for better opportunities or it there was a mineral strike in some other province (Bakewell 1971, 124).

did indigenous laborers (O'Toole, 2012, 14).²⁰ The second problem was that slaves were expensive relative to indigenous laborers: in the early 17th century, the price of an adult male slave came to roughly three to five years of annual wages (Bakewell 1971, 123). Finally, slaves proved to be generally less productive than free laborers and required more supervision, especially when ore-quality was high and effort could not be easily monitored. Free laborers could be given a direct stake in the success of the mine via bonus payments that gave the worker a share of all output above a select quota; this option was not open to slaves. The result was that mine-owners confronted a bit of a paradox: miners preferred free labor when ore quality was high and skilled labor was required, but they could not afford slave labor when ore quality was low and extraction routine. The result was that even at mining slavery's peak around 1600, Mexican mining employed few African slaves (Chapa 1981).²¹ Slavery only came to play a major role in the gold mines of New Granada, where intense indigenous resistance against Spanish rule meant that local labor was simply not available (Sharp 1975, 469).

3. Endogenous decline, 1650-1810

The Empire Strikes Back (against the Encomenderos)

The Crown began trying early to defang the encomienda. Hernán Cortés himself had to physically travel to Spain in 1528 in order to defend the institution. In 1536, the imperial government declared that encomiendas could not be passed down for more than two generations, although exceptions continued to be relatively common (Caporossi 2007, 60). In 1542 a royal edict banned Indian slavery, prohibited the transference of encomiendas, and declared they could not be inherited. The new laws — called, usefully enough, the "New Laws" — almost provoked a settler rebellion and the Crown tread lightly in enforcing them. Nevertheless, from 1542 onwards it was illegal to require labor services from encomienda Indians, although Indians could pay in labor if they had no other way to make tribute payments. This provision took some time to be enforced in the face of encomendero resistance, but by the end of the 15th century tribute was officially due in kind or in cash, with labor a way to pay if other resources were insufficient. At first, the change was mostly a distinction without a difference. Over time, however, it abetted the endogenous decline of the institution by allowing prosperous indigenous communities to buy their way out of labor service.

²⁰ The problem was that harsh conditions meant that the slave population in Spanish America did not generally replace itself, so there was never a significant second generation of American-born slaves acclimatized to highland conditions.

²¹ More specifically, Chapa (1979, 105) reports that circa 1600 African slaves made up only 6 percent of the mining workforce in Zacatecas and 10 percent in Parral.

The imperial authorities attempted to strike another blow against the encomienda in 1610, when the government declared that "vacant" encomiendas would revert to the Crown. That ignited another wave of resistance from the encomenderos, so Madrid compromised by allowing them to retain their encomiendas if they paid a surtax worth one-third of their tribute collections to the royal treasury. Not surprisingly, the encomenderos continued to complain bitterly and the surtax proved hard to collect. Between 1610 and 1631, it collected only 121,547 pesos out of an expected 700,000 (Escobedo Mansilla 1979, 183-5).

The Crown regrouped, however. Between 1687 and 1691, it imposed a 50% tax on all tribute across Spanish America, ostensibly to support the Pacific Ocean fleet. In 1697, it reinstated the tax, this time to finance the war with France. When peace came, the imperial government kept the tax in order to build ships to fight the pirates of the Caribbean. This time the imperial authorities enforced the tax, hitting encomenderos who did not meet their quotas with additional fines (Escobedo Mansilla 1979, 183-5). Finally, a series of decrees between 1718 and 1721 abolished most encomiendas, although exceptions were made for some peripheral areas. In Yucatán, for example, the Crown did not even begin to take possession of private encomiendas until 1784; in New Granada the imperial government was reverting encomiendas as late as 1807 (Caporossi, 60-61).²² Figure 4 shows the decline in the number of encomiendas in New Spain and Peru, with Yucatán broken out separately.

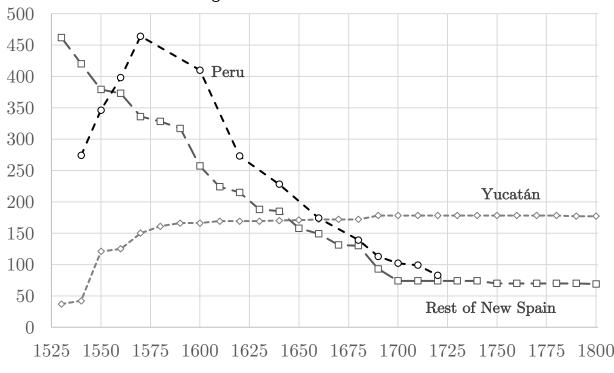
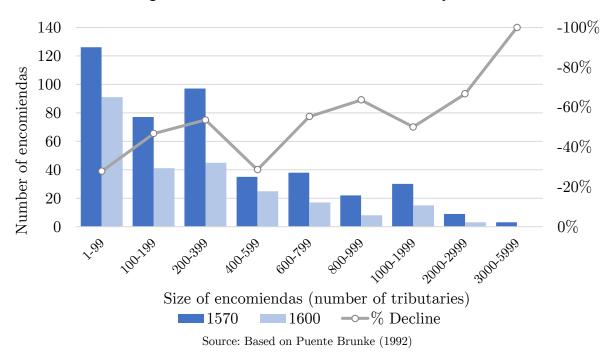


Figure 4: Number of encomiendas

 $^{^{22}}$ The encomienda in question was first purchased in 1548.

Economic Forces against the encomienda

Economic forces aided the Crown's long war of attrition against the encomienda. The institution came under increasing pressure from two directions after almost the moment of its initial establishment (Keith 1971). The success of the mining sector and the growth of urban centers translated into an increased demand for labor at a time when the rural population continued to decline. In addition, as the Spanish population grew, the new arrivals demanded equal access to indigenous labor. This provided laborers with more outside options and made forced labor harder to sustain. As a result, the average size of encomiendas shrank dramatically, reducing their economic attractiveness (see Figure 5).





In New Spain, encomienda labor in mining almost disappeared over the course of the 17th century (Brading, 1971, 146). The reasons were essentially economic. First, encomienda labor was less productive than free labor in the mines, because free workers consisted of a year-round workforce whereas encomienda workers were rotated in-and-out for relatively short shifts. Second, mineowners incentivized free laborers by giving them a share in all ore mined per shift above a fixed quota. Extending that system to encomienda labor increased its productivity, but also cut its cost advantage. Finally, encomienda laborers often successfully demanded higher wages, violently protesting the discrepancies and disrupting mine operations (Chapa 1981, 517).

It took longer for encomienda labor to fade from agriculture. The switch to free labor in mining and the growth of urban centers translated into an increased demand for free labor. In addition, large Spanish-owned farms began to proliferate around the major cities. These farms demanded their share of the indigenous labor force. Viceregal authorities began to distribute workers — the "repartimiento," or apportionment — to private land-owners, especially after 1549 reforms prohibited private encomiendas from taking their tribute in the form of labor service. The Viceroyalty of New Spain set weekly labor quotas equal to two percent of the male population, who would then work on local farms for seven days before being replaced by the next shift. By the 1560s, the system employed roughly 2,400 workers per week, divvied up among 114 farms in the Valley of Mexico (Gibson 1984, 226-27).

Forced labor, however, was caught in a scissor. On one hand, continuing population decline decreased the supply of labor. After the plagues of 1576-81, repartimiento weekly labor quotas had to be *quintupled* in order to maintain the same supply of workers (Monteiro 2006, 23). Spanish employers became more abusive and the local Indians more recalcitrant. In 1601, the Viceroyalty reformed the system so that drafted workers were simply ordered to report to a local labor market where they could choose their employer. The new system did not work very well and the amount of repartimiento labor continued to fall. Rural wages, conversely, rose substantially (Gibson 1984, 251). By the time New Spain formally abolished the use of forced labor in agriculture in 1632, the amount of labor distributed through the system had already fallen to next to nothing. Labor drafts in the Valley of Mexico continued to be used to provide labor for drainage works, but not for agriculture (Gibson 1984, 236). On the other hand, the agricultural frontier provided more outside options for labor, as did the burgeoning urban sector. Figure 6 gives some sense of the importance of Spanish America's urban sector, as the mainland's urbanization rate exceeded Spain's by 1700.

There were occasional attempts to reinstate forced labor for the mines in northern Mexico, but they mostly floundered in the face of worker resistance and economic irrelevance. In 1759, for example, José Romero de Terreros was attempting to reopen the Real de Monte silver mines (in modern Hidalgo). The Viceroyalty granted Romero permission to draft up to 10% of the male population within a 30 mile zone around the mine, although he was required to pay wages. When it came to digging tunnels, forced labor worked for Romero because the only supervision required was to check that they had indeed filled the requisite ten bags with rocks. Operating the mines, however, required more highly skilled and better motivated workers — who refused to work alongside forced labor. Romero ceased using draftees soon after the mine began operation. 23

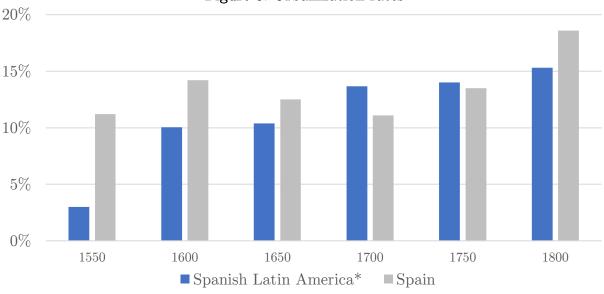


Figure 6: Urbanization rates

(*) Includes Argentina, Bolivia, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, and Uruguay. Source: Abad and Van Zanden (2016)

The mita in decline

The Peruvian mita came under similar pressure after 1650, albeit from different directions. From the start, mita service was negotiable for communities that were sufficiently wealthy, strategic, or stubborn in their resistance. Parinacochas, for example, was wealthy enough to simply pay higher tribute in return for an exemption. The strategic province of Tarma negotiated an exemption in the 1750s in return for cooperation in capturing the leader of a local rebellion. Jauja and Puno simply engaged in passive resistance, going on strike until the Spanish agreed to grant them permanent exemptions (Abad and Maurer 2020).²⁴

²³ Free laborers generally refused—violently—to work alongside forced laborers. They also refused—again violently—to allow their wages to be cut. Mine laborers had traditionally received the right to keep a portion of the ore they produced over their daily quota. In 1766, Romero attempted to alter the system. Instead of being able to choose the ore that they would take home, all ore would be mixed up and then parceled out to the workers in the requisite amounts. This provoked protests, followed by letters to the Viceroy, wildcat strikes (there being no other kind in the 1760s), and then finally an armed revolt that required Mexico City to dispatch soldiers to put it down (Chapa 1981, 524-28).

²⁴ The Spanish jailed Jauja's cacique in response. The community did not give in.

Individuals could also successfully resist or avoid service and did so in increasing numbers. Wealthier people avoided service with cash payments known as "silver Indians" or "Indians in the pocket" (*indios de plata* or *indios de faltriquera*) or by hiring a substitute. As early as 1610, 25% of the Potosí mitayos avoided the draft by paying cash instead. An additional 5.1% reduced their labor service through a mix of service and payment and 8.6% simply skipped service altogether. Strategies for mita avoidance turned very creative. Puzzled viceroys began to notice odd sex ratios in their surveys as parents opted to baptize boys as girls since only males were obligated to serve (Abad and Maurer 2020, 22).

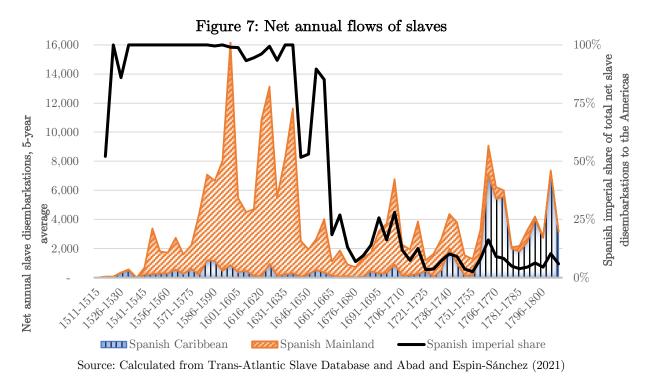
The simplest and most radical strategy to avoid either the mita or the encomienda was simply to leave. Indigenous peoples opted to leave their community and to become an outsider —a "forastero"— elsewhere. Under Spanish law and custom, migrants were subject to neither service, tribute, nor labor drafts of any type. Migration to avoid labor drafts became commonplace as early as 1590, only two decades after the mita began. So many opted for this choice that tributary censuses started recording forasteros in 1645 (Albiez-Wieck and Gil Montero 2020).

Ultimately, the real revolutionary innovation that the Spanish brought to the New World was not labor coercion but paid wage labor (Abad et al. 2012). As the colonial economy grew in sophistication, it pulled indigenous people to urban and mining centers where opportunities to participate in the labor market became increasingly more abundant. Even in mining, mitayos made up only 22% of Potosí labor force as early as 1603. By the time the Spanish parliament got around to abolishing the mita in 1812, it was practically a dead letter.²⁵ By the late colonial period, free workers made up more than 70% of the labor force in the mines of Spanish America (Bakewell 1984, Tandeter 1993).

The Decline of mainland Slavery after 1640

Why didn't elites substitute African slaves for local labor drafts? Legally and politically, there were few barriers to using African slaves. The use of slaves in the mines was not particularly profitable (outside of a few select roles) but on farms and in cities we have no evidence that slaves could not carry out tasks as effectively as indigenous workers.

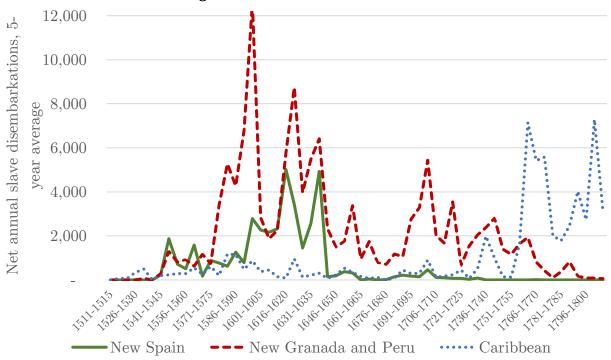
 $^{^{25}}$ In Mexico the use of forced labor persisted in the older mines around Taxco, although it made up a minority of the labor force by 18th century.

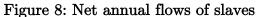


Until 1640, elites across the Spanish mainland freely substituted slaves for indigenous laborers. Figure 7 shows net slave imports for the mainland and the Spanish Caribbean and the total Spanish imperial share of all slaves transported to the New World. Mainland slave imports rapidly outstripped the Caribbean by an order of magnitude. The pre-1640 dominance of the Spanish empire in slave imports is not an artifact of Spanish control of Brazil: these estimates treat Brazil as a foreign territory even when it was part of the Spanish empire between 1580 and 1640. (These estimates also account for slaves re-exported outside the Empire from Spanish territories.) In 1640, however, Spanish slave imports plummet in absolute terms; they never recover in absolute terms. After 1660 most slaves transported to the New World were taken to English, French, or Portuguese territories.

What happened in 1640? Portugal successfully seceded from the Spanish empire in a violent revolt led by the Portuguese nobility, taking Brazil with it. Madrid tried several times to reconquer Portugal, conceding independence only in 1668. In the interim, Portuguese merchants could not traffic slaves to Spanish territories. English and Dutch smugglers filled the gap until the Spanish got around to conceding new slave import permits after 1651. The problem for American slave purchasers, however, was that the new suppliers could not smoothly and costlessly segue into the existing distribution channels. An American slave purchaser now had to find a (likely illegal) supplier, arrange for pickup and payment, finance the (again, illegal) sale, and then transport the slaves from

the new delivery points rather than from existing slave markets. All this made it costly to import slaves and caused demand to fall (see Figure 8).²⁶





Source: Calculated from Trans-Atlantic Slave Database

Slave purchasers in Peru and New Granada paid the cost of finding new suppliers during the disruption caused by the Portuguese secession. Slave imports dropped significantly, but they did not disappear. They partially recovered after 1690.²⁷

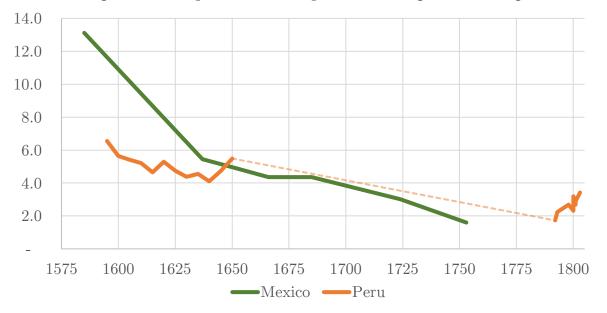
In Mexico, however, the fall was rapid and permanent. The story appears to have been a lack of demand rather than a lack of supply. As a multiple of annual agricultural wages, slave prices had already fallen from an astronomical level of 13 to a little above 5 by 1640. (See Figure 9.) Prices continued to fall despite the almost complete cessation of slave imports. By 1750, slave prices fell below two as a multiple of annual wages.²⁸ Perhaps unsurprisingly, declining slave prices were accompanied by rising rates of manumission. Notarial records in Mexico City indicate that between 1660 and 1785 roughly 55% of all slaves were manumitted during their prime working years, between the ages of 16

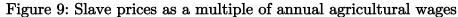
²⁶ Figures 10 and 11 include slaves illegally transported to Spanish destinations on Dutch and English vessels.

²⁷ The data do not allow us to distinguish between New Granada and Peru, as most slaves destined for Peru were shipped overland from New Granada.

²⁸ Calculated from data in Valdes (1987), pp. 171-72. The calculation of annual farm wages assumes a work-year of 288 days, following Lindert and Williamson (2012). Using a different estimate for the number of work days per year will affect the level but it will not affect the price trend.

and 45 (Valdés 1987, 184). None of this is consistent with a story of high demand cut off by supply shortages. Rather, Mexican slavery already seems to have been an increasingly marginal proposition before the 1640 disruption. Mexican importers purchased slaves because that is what they knew, but once the supply was disrupted they had little reason to put in the effort to create new import channels.





Source: Based on Abad and van Zanden (2012), Bowser (1972), Valdés (1987), and Lindert and Williamson (2012).

The reason for declining Mexican demand seems to be twofold. First, the cost of control in Mexico was high. There were two places to which runaway slaves could flee. The first was the highlands of modern-day Veracruz and Guerrero, where escaped slaves established free colonies called *palenques*. The colonial authorities destroyed some of these villages, but fearing more generalized slave revolts, the Crown recognized many and granted their inhabitants free citizenship. The second was to the major cities. Urban slavery was fairly common, but it was also relatively easy for escaped slaves from elsewhere to establish themselves within free African communities (or marry local mestizos) and create a new life.

Second, the indigenous population of Mexico began to recover in the early 17th century. Increasing access to local free labor reduced the demand for slaves. For example, in the highlands of Veracruz the Spanish elite began reducing slave purchases as early as 1620, two decades before the Portuguese secession (Carroll 2001, 34). In sugar-growing Córdoba, Veracruz, slave imports continued, but Mexican lowland plantations never grew as large or as profitable as their Caribbean and South American counterparts. The decline in highland demand for imported slaves dovetailed with the relative unprofitability of slavery in the northern mines. The end result was that once the shock of 1640 disrupted the transatlantic trade, Mexican elites had little reason to try to re-establish it.

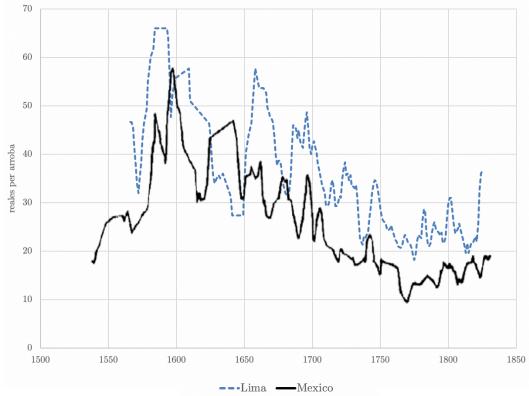


Figure 10: nominal sugar prices in Mexico and Lima, 3-year moving averages

Source: Based on Macera (1980) and Von Wobeser (2004, 53).

Slavery in Peru would also eventually decline, but rather later than in Mexico. The primary reason for the divergence was that the indigenous population continued to decline in Peru for almost a century after it had begun to recover in Mexico. A secondary reason was that lowland agriculture expanded more quickly (and more profitably) in Peru than in Mexico. Lowland sugar plantations in Mexico suffered from very high transport costs if they wanted to sell into the Mexico City market.²⁹ International exports might have been an option, but imperial authorities periodically banned exports from New Spain. From 1650 to the end of the colonial era, sugar prices in Lima consistently exceeded sugar prices in Mexico. (See Figure 10.) In addition, coastal plantations in Peru produced large quantities of tobacco and wine. Demand for these commodities paired with an influx of capital from Jesuit sources made the plantation sector profitable after

²⁹ In 1794, transport costs between Cuernavaca (near Mexico City) and Veracruz ran 1.41 pesos per arroba, at a time when an arroba of cane sugar sold for 3.04 pesos in central Mexico (Suarez 2003, 123). Lowland sugar plantations selling to Mexico City needed to compete with highland plantations that were much closer to the market and staffed by free labor.

1650 (Andrien 2011, 54). Slaves remained the chief source of labor well into the 18^{th} century (Contreras et al. 2010, 16).

Nonetheless, the cost of control (relative to the benefits) was higher for Peruvian slaveowners than in Brazil or the Spanish Caribbean. Slaveowners often incentivized productivity by providing in-kind payments such as tobacco and brandy on Sundays. In coastal plantations, slaves were also granted plots of land for their own cultivation. In urban settings, Peruvian slaves benefitted from a semi-free state in return for compensation to the slaveowner (Contreras 2016, 209).

The result was that slavery never dominated Peruvian society the way it would in the Caribbean (or for that matter Brazil and the southern colonies of British North America) although they remained a more significant part of the labor force than in New Spain. In New Spain, slavery peaked around 2% of the population and then went into terminal decline. In Peru, the slave share of the population peaked around 7% and fell to around 3% on the eve of independence. (See Table 2.)

_	New Spain			Peru		
			Slave share			Slave share
-	Enslaved	Spanish	of total pop.	Enslaved	Spanish	of total pop.
1570	18,569	17,711	1%	60,000	$25,\!000$	5%
1650	$35,\!089$	$182,\!348$	2%	60,000	70,000	7%
1740	20,131	401,326	1%	no data	no data	no data
1790	10,000	$685,\!362$	~0%	40,337	136,311	3%

Table 2: Slave and "Spanish" populations in New Spain and Peru

Note: "Spanish" is a legal classification, not a racial or ethnic one. It includes Spanish-born immigrants (*peninsulares*), American-born people of Spanish descent (*criollos*) and Spanish-speaking "mestizos" who possessed the rights and privileges of Europeans.

Source: Figures calculated from Noejovich et al. (2009, 547); CEPD (1972, 20); and Aguirre (1972, 210, 219, 222, and 230).

Might the decline of slavery in Spanish America have been due to moral considerations? After all, societies have ended human bondage even when the economics of forced labor made it completely viable. The British Parliament did not abolish slavery in 1834 because the costs of control had risen too high; nor did the Union Army destroy the institution in North America because the returns to slave-owning had fallen too low. In the absence of other evidence, it is possible that moral repulsion or political opposition caused the institution to decline on the Spanish American mainland.

The problem with that hypothesis is when the Spanish saw an opportunity to use slavery to gain sugar profits from Cuba, they seized it with a vengeance. In the 1720s, the Spanish government began redistributing large plots of land used for cattle ranching to individual owners, in order to encourage sugar cultivation.³⁰ In the 1740s, the imperial government further goosed the sugar industry by eliminating all duties on Cuban sugar bound for Spain (Bergad et al. 2017, 102). The number of sugar mills around Havana rose from 43 in 1740 to 98 by 1761, on the eve of 1762-63 British occupation. Sugar production more than doubled between 1750 and 1761 (García 1991, 114 and 130).

The Spanish authorities had no problems using chattel slavery to fuel Cuba's burgeoning sugar industry. Net slave imports totaled 12,000 in the two decades between 1740 and 1760, and then rose again to 80,000 between 1761 and 1775. The horror of the conditions the slaves found cannot be overstated but perhaps one number can bring it home: despite approximately 80,000 net embarkations in 15 years, Spanish census takers counted only 44,333 slaves on the island in 1774.

4. Conclusion

The Spanish conquered a vast expanse of the New World in a few decades. They then faced a challenge: how best to secure and exploit their new territories? Both goals required labor. So the Spanish repurposed, invented and exploited institutions designed to coerce the people in the Americas and Africa to provide the labor they needed.

Conditions did not remain static, however. Economic activities expanded and changed. So did the relationships between the Spanish and the people they ruled. Attempts to enslave the indigenous population failed in the face of native resistance and clerical opposition. Over time, other forms of forced labor also weakened as labor scarcity and growing outside options eroded labor coercion. By 1680, most encomiendas provided only tribute. In 1720 the Spanish government ordered the reversion to the Crown of all vacant encomiendas. In Peru, the centralized mita weakened over time as native populations migrated to escape its reach and enforcement costs rose. By the time that populations began to rise (after 1640 in New Spain and 1720 in Peru) it was too late to re-establish forced labor, despite various attempts in that direction. Even African slavery began to fade on the mainland, albeit more in New Spain than in Peru.

The progression towards wage labor, however, was neither smooth nor monotonic. When conditions were suitable and the costs of control were sufficiently low, forced labor made

³⁰ This was not a forcible land redistribution. The cattle grazing rights had been granted under a system called "*hatos* and *corrales*," under which town counties gave free access to large circular plots of land in return for (1) small fees paid the Spanish imperial government; (2) a certain amount of beef to be provided to the local county government for public distribution; and (3) lodging for travelers. These grants were not subdivided, but they became collectively owned over time as owners passed their rights on to multiple children. The owners of these rights could neither sell nor transfer their properties and corporate rights were uncertain. After 1729, local town governments in Cuba began to subdivide these properties among their owners. See Jiménez et al. (2008) and García Rodríguez (1991).

temporary comebacks. In one horrorific case — the Cuban sugar complex — the "comeback" would last for almost two centuries. This is not to say that moral concerns had nothing to do with the decline of forced labor over the centuries of Spanish rule. It is to say that when the temptation was sufficiently large and the costs sufficiently low, the Spanish felt little computcion about resuscitating some of the most brutal labor arrangements known to humanity. By the time the mainland Spanish empire collapsed in the early 19th century, the reach of forced labor had largely crumbled, but it was up to new generations in the new nations to ensure that it would never return.

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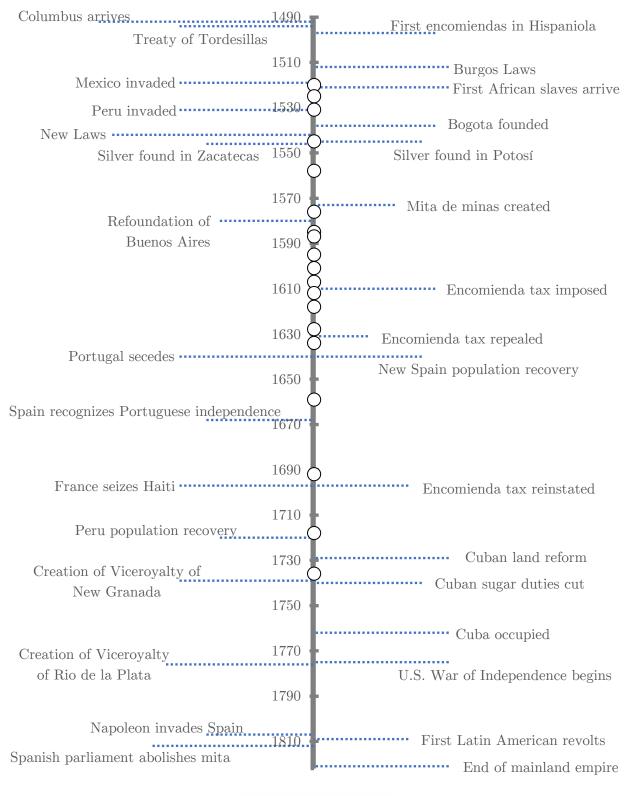
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Appendix: Timeline of selected events in Spanish America

O Major epidemics