

Epidemics, Rent Extraction, and the Value of Holding Office^{*}

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Abstract

Public officials who control access to scarce resources may profit by extracting extraordinary rents during the economic disruptions that follow epidemics. This can increase the value of holding office during these crises. Using data on the sales of public offices in colonial Mexico, we show that while the negative effects of epidemics limited the value of office in most areas, in districts with a public granary — an institution that regulated grain markets in times of food scarcity — aspiring officeholders were willing to pay more for positions following disease outbreaks. Historical evidence suggests that the differential increase in office prices in areas with a granary can be traced to officials' ability to manipulate food prices and supply for personal gain during crises. This highlights the important roles of economic monopoly and political corruption in determining the consequences of epidemics.

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Lost output, uncertainty, and labor shortages following epidemics can reduce economic growth long after a disease has been brought under control. However, a few may exploit the situation and profit during this period of hardship through hoarding, price gouging, and the misallocation of aid money or other public funds.

Public officials have been responsible for some of the most egregious examples of rent-seeking during epidemics. Entrusted with managing the funds and institutions set up to respond to disasters, politicians and government officials are often in a position to take advantage of economic shortages and public relief programs for personal gain. The COVID-19 crisis already provides numerous examples, including alleged insider trading by members of Congress in the United States¹, the investigation of at least three governors and numerous high-level health officials in Brazil for fraud², and allegations of over-invoicing in the government purchase of medical equipment in Mexico.³

In this paper, we examine how epidemics affected rent extraction by public officials using data from colonial Mexico. Rents from office are generally hard to observe or measure systematically. We overcome this difficulty by exploiting the practice of office selling in New Spain during the 18th century. Because positions in the colonial bureaucracy were commodified, traded, and sold, we are able to use office sales prices as a direct measure of the monetary value of holding a position. Building on work by other scholars (e.g., Pietschmann 1972; Sanz Tapia 2009; Guardado 2018), we argue that office sales prices reasonably approximate the expected opportunities for rent extraction in districts over time given the sizable pool of candidates bidding for positions and given the incentives facing aspirant officeholders to amass wealth through extracting resources from the population.

Using subnational panel data on the sales price of positions, we examine how the value of the office of *alcalde mayor* — the local official charged with managing the judicial, executive, and economic

¹Wilber, Del and Jennifer Haberkorn. “FBI serves warrant on senator in investigation of stock sales linked to coronavirus.” *Los Angeles Times*, 2020 May 13. Available at <<https://www.latimes.com/politics/story/2020-05-13/fbi-serves-warrant-on-senator-stock-investigation>>

²De Sousa, Marcelo. “Pandemic probe: Brazilian governor targeted in police raid.” *Associated Press*, 2020, June 30. Available at <<https://apnews.com/8d0f6fb3710af40509cd460fd7a411bc>>

³“Hijo de Manuel Bartlett vendió al IMSS ventiladores más caros; él lo niega.” *Animal Político*, 2020, May 1. Available at <<https://www.animalpolitico.com/2020/05/hijo-manuel-bartlett-imss-ventiladores/>>

administration of districts — changed in the wake of epidemics. Following disease outbreaks, agricultural labor became scarce and internal trade was interrupted, which caused extensive food scarcity and limited the potential for rent-seeking in most areas. However, in districts with a public granary, locally-managed institutions that regulated grain markets and facilitated the emergency distribution of corn and wheat, officials could exploit their control over the food supply to profit during epidemics by manipulating local markets, selling stored grain at high prices, and pocketing the rents (e.g., Castañeda 1929; Pastor 2002).

We compare the sales price of positions in districts with and without public granaries around the time of epidemics using two empirical strategies. First, we investigate the sale of offices from 1702 to 1750 using a fixed-effects panel approach. This allows us to take advantage of variation in the establishment of public granaries and in the regions affected by different epidemics over time. We then focus on the largest outbreak of this period, the Matlahauhautl Epidemic of 1736–1738, to trace changes in office sales prices before, during, and after the outbreak in an event study framework, capitalizing on the differential timing of the outbreak across districts.

We show that office sales prices in districts without public granaries remained constant or even declined in the aftermath of epidemics. By contrast, the price of positions in districts with public granaries increased markedly — by between 10 to 25 percent, depending on the epidemic — in the five years following an outbreak. These results are robust under numerous empirical specifications. Complementary historical evidence suggests that the rise in sales prices can be traced to officeholders taking advantage of their position to extract rents during agricultural crises.

This paper builds on work on the private returns to office (e.g., Eggers and Hainmueller 2009; Querubin and Snyder 2013; Fisman et al. 2014; Truex 2014; Palmer and Schneer 2016; Guardado 2018; Szakony 2018) by highlighting how epidemics can create opportunities for corruption and rent extraction. Prior work has documented many avenues for official enrichment, such as through forging professional connections, demanding payment for access to public funds or programs, or diverting state resources to friends and family. These opportunities are generally easiest when state

resources are abundant. We show that resource shortages can sometimes increase the value of office as well. By exploiting their monopoly over the distribution of scarce goods demanded by the population, officials in this context were able to profit from high prices during times of scarcity. Officials' appropriation of granary resources — intended to insure the public during crises — is reminiscent of work that examines how officials can profit from the control and redirection of relief funds following natural disasters (e.g., Chen 2012; Yamamura 2014; Nikolova and Marinov 2017).

This paper also contributes to scholarship on extraction by public officials and its consequences in colonial Latin America (e.g., Diaz-Cayeros and Jha 2016; Franco-Vivanco 2019). Closely related to our study, Guardado (2018; 2019) explores variation in the price of colonial offices in Peru as a function of the Crown's changing revenue needs and the quality of bureaucratic oversight. We complement these top-down accounts with a focus on the changing conditions for rent extraction within the jurisdictions themselves.

Finally, this work contributes to the literature on the political economy of epidemics. Disease outbreaks can have important short- and long-term consequences on population dynamics, control of resources, and political power (e.g., Goldberg 1992; Poos 2004; Young 2005; Voigtlander and Voth 2013; Sellars and Alix-Garcia 2018; Garfias and Sellars n.d.). We illustrate one mechanism through which epidemics may benefit, rather than harm, some political elites. Though epidemics limit most types of economic extraction, some public officials may benefit from exploiting their preferential access to relief supplies or other resources meant for the general population, a particularly pernicious form of corruption.

1. Historical Setting

Beginning with the infamous smallpox outbreak during the Conquest, colonial Mexico suffered from periodic, large-scale epidemics. Disease was the primary cause of the collapse of Mexico's indigenous population in the 16th century, and outbreaks continued to disrupt the economy and society after populations began to rebound. Afflictions included a mix of known pathogens from Europe (smallpox, measles, plague, influenza), tropical diseases like yellow fever, and a series of

fevers of unknown and probable American origin (typically recorded under the Nahuatl names of *matlazahuatl* and *cocoliztli*).⁴

Some outbreaks were localized, while others were widespread and caused thousands of deaths. The direct effects on mortality and wellbeing were often exacerbated by indirect economic and social consequences. Famine was a particular risk. Grain shortages were common in the aftermath of epidemics as agricultural workers died, growing seasons were interrupted, and labor productivity of survivors declined (e.g., Florescano 1976; Malvido 1982; Molina del Villar 2001). Agricultural elites worsened food scarcity by hoarding during times of crisis to establish monopolies and artificially inflate prices (Florescano 1969; Van Young 1981; Malvido 1982, p. 191). Famine in turn worsened mortality, causing further hardship (Florescano 1976; Molina del Villar 2001, p. 182).

Town-run public granaries, which regulated local grain markets, served as the main institutions of social protection during these crises. The management of grain prices and supply was conducted through two complementary institutions⁵: the *pósito*, an emergency granary that bought grain at market prices during normal times and offered it at subsidized prices to the urban poor during shortages, and the *alhóndiga*, which served as a storage facility and often the only legal grain exchange for the population.⁶ Public granaries were typically founded in cities or mining towns, especially following periods of high prices or grain shortages (Vásquez de Warman 1968, p. 396–7). They also provided an important source of public revenue by charging fees on grain shipments. However, not all large towns had a public granary; some granaries were located in smaller districts; and some areas chartered granaries only after our period of study (see Table 1 and Appendix Section A.2).

Public granaries legally monopolized the distribution of corn and wheat during shortages. Direct sale or resale of grain was prohibited, and producers were forced to disclose and sell their crop at a

⁴For a timeline of the most notable epidemics of the colonial period, see Gerhard (1993), Table D.

⁵See Vásquez de Warman (1968), Florescano (1969), and Challú (2007, ch. 2) for a detailed description of these institutions and their relationship to one another. For simplicity, we use “public granary” to denote an *alhóndiga*, often in conjunction with a *pósito*.

⁶Informal transactions outside public granaries sometimes occurred during times of excess supply, though these were also controlled by local authorities (e.g., Florescano 1969, p. 55).

fixed price to the *alhóndiga*. Granary officials, in conjunction with the local government, determined how to ration and allocate grain (Vásquez de Warman 1968). As in other contexts, local officials faced competing incentives on how best to use these resources during crises (Shiue 2005).

The *alcalde mayor* or *corregidor*⁷, the local official in charge of a district, played an important role in this process. The *alcalde mayor* was a powerful appointed officer with wide-ranging executive, judicial, and legislative authority within the district. The allocation of responsibilities varied in time and space (e.g., Gerhard 1993, p. 10–17), but *alcaldes* during this period were generally appointed for a fixed term (five years if appointed by the king, three if appointed by the viceroy) to serve as the highest-ranking civil authority in their district (Castañeda 1929; Pietschmann 1972, p. 178). In districts with larger towns that had an *ayuntamiento* or city council, the *alcalde* served as the head of this institution.

Crucially, *alcaldes* were instrumental in managing the food supply. Along with the city council, they appointed the officers of the public granary and worked closely with them to ensure an adequate supply of grain. They were in charge of adopting and enforcing regulations to manage prices and demand during crises (Vásquez de Warman 1968, p. 420). The *alcalde* was also empowered to “prohibit the exportation of grain from his district and compel those who had any to sell it to the people at a just and reasonable price” (Castañeda 1929, p. 461–2; Challú 2007). So broad was their authority that during this period they could even force the Church’s tithed grain to be sold through the public granary (e.g., Challú 2007, p. 97).⁸

By design, *alcaldes* were brought in from outside the district and were legally prohibited from owning land or pursuing commercial opportunities in their jurisdiction (Castañeda 1929; Pietschmann 1972, p. 178). However, in practice the office provided ample opportunity for rent extraction.⁹ Under

⁷While these positions were distinct in the early colonial period, by the mid-17th century both terms were used interchangeably (Gerhard 1993, p. 14).

⁸From 1713 to 1750, Challú (2007) documents 24 inter-district grain trade bans or permit requirements issued by *alcaldes*, demonstrating the frequent use of these powers.

⁹Though the Crown required audits at the end of *alcaldes*’ terms (*juicios de residencia*), these were ineffective at curbing corruption. They were implemented by incoming *alcaldes*, who customarily exonerated their predecessors for a fee (Pietschmann 1972, p. 205).

normal conditions, an *alcalde* could take advantage of his position to establish de facto monopolies over the local provision of certain products through the *repartimiento*, a system of distribution of resources to and from indigenous communities (Hamnett 1971; Pietschmann 1972, p. 200–202; Baskes 2000). *Alcaldes* could also force producers to sell their grain at below market rate. This was especially relevant in districts with public granaries, where grain was purchased, stored, and sold for a large population. When grain prices were high, officeholders could resell stored grain at a profit (e.g., Castañeda 1929, p. 466). The potential for rent extraction could be amplified during crises when the *alcaldes'* control over scarce resources enabled them to monopolize the grain market, fix prices, and regulate supply. One *alcalde* in the southern region of Chiapas, for example, used his authority to buy maize in 1712 at 0.5 pesos per bushel, sold it back to the same producers at 1.5 pesos, and then increased the price to 6 pesos under a severe shortage months later. During another shortage in Mexico City, the *corregidor* forced producers to sell maize at 1 peso per bushel and then resold it at 10 or 12 pesos (Pastor 2002, p. 250–251).

Rent seeking was central to how these bureaucratic positions were allocated and compensated during this period. Starting in the late-17th century, the Crown began to commodify and sell colonial offices to increase revenue (Parry 1953; Pietschmann 1972; Sanz Tapia 2009). Unlike other positions — like notaries public — the sale of *alcaldías mayores* did not confer ownership of the office, but rather allowed appointed buyers to serve for a single term. Offices were sold either in the form of immediate entitlements or futures (to take office after the term of the current *alcalde*). Positions were often subsequently traded through commercial transactions (Pietschmann 1972, p. 193–4).

Bidding for positions was organized by the *Cámara de Indias*. After a vacant position was posted, interested candidates sent applications that included a proposed payment (or *beneficio*). After deliberations, the *Cámara* sent a shortlist of candidates for the king to make a final selection (Pietschmann 1972, p. 187; Sanz Tapia 2009, p. 88). Demand for positions usually greatly exceeded supply (Pietschmann 1972; Sanz Tapia 2009, p. 89). Even when no vacancies were announced,

candidates commonly sent direct requests for posts via a connected intermediary (Sanz Tapia 2009, p. 92).

The prices paid for positions differed dramatically. Evidence suggests that the potential for rent extraction was the key determinant of sales price (Pietschmann 1972; Borah 2002; Guardado 2018). Salaries paid to *alcaldes* were typically low, and the Crown had essentially halted all salary payments by the early 1700s (Pietschmann 1972, p. 197–198; Sanz Tapia 2009, p. 97). The monetary value of the position thus depended primarily on the opportunities for extraction in the district within the three- or five-year term of office.¹⁰ The Crown “tacitly accepted” this abusive behavior so as to secure a higher sales price for positions (Pietschmann 1972, p. 194–195).

As Pietschmann (1972) writes, incoming *alcaldes* “faced the need not only to earn enough money within five years to pay off their debts, but also to make a profit” (p. 200). As was openly discussed in documents circulating in the 17th and 18th centuries,¹¹ the potential for rent extraction in each district depended on factors like the presence of mines, the availability of natural resources, and the size of the commercial market (Pietschmann 1972, p. 194–5; Guardado 2018). Disease outbreaks potentially played an important role in officeholders’ ability to recoup their investment as well. Extraction of some types of wealth became more difficult in the aftermath of epidemics. For example, opportunities to profit from trading dyes, minerals, or other commodities would have been limited during the commercial disruptions that followed outbreaks.

In areas with a public granary, by contrast, the potential for extraction was plausibly higher during crises. Grain shortages caused by epidemics frequently lasted for several years, even after the outbreak itself had tapered off (Florescano 1969; Malvido 1982). This provided a window of opportunity for *alcaldes* to profit from the control of granary resources while grain demand and prices were high.

¹⁰In the *Audiencia* of Mexico, *alcaldes* had to provide collateral or present a guarantor to cover any deficits at the end of their term. Large merchants in Mexico City often served this role, using *alcaldes* as agents to forward their commercial interests in the district and further increasing pressures to maximize extraction (Borah 2002, p. 50–51).

¹¹These include several *Relaciones* that describe districts and their resources (Sanz Tapia 2009, p. 90–91), and later the notable *Yndize comprensibo de todos los Governos, Corregimientos y Alcadias mayores...* from 1777, which ranked districts according to their perceived investment value.

This could happen in several ways. To secure grain during shortages, *alcaldes* could divert local tax revenue from the Crown to offer high prices to producers. This opened up the possibility of collusion with nearby landowners to defraud the Crown by over-invoicing purchases. Through monopolizing the grain market, officials could also forcibly obtain grain from producers at below market prices and then sell stored grain at a profit to local consumers, who had limited options while private sales were restricted. While *alcaldes* faced some constraints on their power — the threat of revolt, for example, placed natural limits on extraction (e.g., Florescano 1969) — they had considerable flexibility in determining whether and how to intervene in local markets, often for personal gain (Pastor 2002).

In Appendix Table B.1, we show that epidemics strongly predict increases in the price of maize in Mexico City's public granary between 1720 and 1750, as historians have noted (e.g., Florescano 1969). During the five-year period after an epidemic begins, the price of a kilogram of maize increases 0.06 reales (0.008 silver pesos) on average, or 20% of the average price over the period. For comparison, a one-standard deviation decrease in yearly soil moisture, reflecting a substantial drought, is associated with a price increase of 0.04 reales (or 0.005 silver pesos).

Did epidemics facilitate rent extraction by public officials in colonial Mexico? In the next sections, we empirically investigate this question using subnational data on office sales from the early 18th century.

2. Empirical Analysis

2.1 Data

We digitize data on office sales in 102 districts in New Spain and Nueva Galicia (now central Mexico) from 1702 to 1750. These data come from a comprehensive report commissioned to the Marquis of Ensenada by the Council of Indies in 1746 and updated in 1751 (transcribed by Pietschmann 1972). The data include the price of the office (i.e., the *beneficio* received by the Crown), the year of sale, and other information about each transaction, such as whether the sale occurred alongside the granting of a military rank, whether more than one office was sold simultaneously, whether

merit was considered (in addition to the *beneficio*), and whether the office was purchased to be filled immediately or in the future.

Because offices in a given district were not sold every year, prices are only directly observed at irregular intervals. To avoid estimation over non-overlapping subsamples in the aftermath of epidemics, we linearly interpolate price between each year of sale. Following McCrary (2007), we inflate the standard errors to penalize for interpolated observations (see Section 2.2). We also replicate our results without interpolation in Appendix B.2. Because there are no office sales recorded in central Mexico between 1720 and 1727 (Pietschmann 1972, p. 192), we omit these years from our estimations. We convert all reported monetary units to silver pesos using nominal exchange rates in the 18th century (García Martínez 1968) and match each sale to its corresponding district using 1786 administrative boundaries (Gerhard 1993).

We compile data on epidemics using Acuña-Soto's (2017) chronology as a starting point and complementing it with various secondary and primary sources (see Appendix Table A.1). We record the year of disease onset and the regions, districts, or contemporary Mexican states affected by each epidemic (Appendix A.1). Major outbreaks during this period have been traced to three diseases: smallpox, measles, and a disease known as “matlazahuatl” of contested provenance (see below). The epidemics under study, their timing, and the geographic areas affected are presented in Table 1. In Appendix B.3 we replicate our analysis using a coarser geographic coding at the level of the modern state. We also digitize and separately analyze detailed data from Molina del Villar (2001) on the most important outbreak of the period, the Matlazahuatl Epidemic of 1736–1738 (Section 2.3).

To assess how control over grain markets affected the potential for extraction, we identify the geographic location of public granaries and their years of operation. To our knowledge, no comprehensive list of all public granaries operating during this period is available. To construct our dataset, we search the secondary literature and primary sources (including archival catalogues, legal compilations, and official correspondence) for any mention of public granaries. We also specifically

Table 1: Public Granaries and Major Epidemics in Central Mexico

Major Epidemics, 1702–1750		
Epidemic	Affected Regions or Present-Day States	Years
Smallpox	Guanajuato	1707
Smallpox	Valley of Mexico	1710
“Fevers,” or matlazahuatl	Valley of Mexico	1714
Measles	Valley of Mexico, Malinalco, and Pachuca	1728
“Alfombrilla,” or measles	Puebla city and Zultepec	1733
Smallpox	Valley of Mexico and Puebla city	1734
Matlazahuatl	Aguascalientes, Jalisco, San Luis Potosi, Queretaro, Mexico, Valley of Mexico, Puebla, and Nayarit	1736–1738
Smallpox	Valley of Mexico	1748
Smallpox	Queretaro	1750

Public Granaries by 1750

Audiencia	District	Approximate Year of Creation
New Spain	Mexico	1583
	San Luis Potosi	1609
	Queretaro	1656
	Antequera	1689
	Tlaxcala	Before 1695
	Valladolid	Before 1702
	Pachuca	Before 1726
	Tlalpujagua	1731
Nueva Galicia	Guanajuato	1735
	Zacatecas	1623
	Guadalajara	1672

Sources: See Appendix Tables A.1 and A.2, where we list additional epidemics and granaries not used in the analysis. We assign outbreaks in the Valley of Mexico to the districts of present-day Mexico City and the contiguous districts of Chalco, Coatepec, Tacuba, and Tezcuco.

investigate whether a granary was present in the most populous settlements of the 18th century (see Appendix A.2 for sources and details). Because public granaries had to be officially chartered, because such authorizations were carefully recorded, and because they were only founded in major population or mining centers (though not all such districts contained a granary), it is unlikely that any major public granary is omitted from our data. We identify eight districts in our office-selling data with granaries chartered prior to 1702, and three districts where granaries opened during our period of analysis. Numerous others opened after 1750 or in districts without office sales (Appendix A.2).

While districts with granaries tend to be larger and more prosperous (Appendix Table A.7), our empirical strategy focuses on within-district variation in office prices, granary presence, and exposure to epidemics over time. We also include geographic covariates interacted with year indicators to address other potential differences in price trajectories. These include surface area, distance to Mexico City, and whether the district is in a malarial zone (under 1000 meters of elevation), which were calculated using data from Mexico’s National Institute of Statistics and Geography (INEGI). We also code whether the district included a mine during the colonial period (UNAM 2007) or a settlement of more than 5,000 people in 1700 (Buringh 2018) as these factors may directly influence price trends. Finally, we include a yearly measure of drought using data from Cook and Krusic (2004) to address the relationship between drought, epidemics, and crop loss (Florescano 1969). These data were derived from tree-ring chronologies and are expressed in terms of the Palmer Drought Severity Index (PDSI), which is standardized to capture deviations from average soil moisture across space.¹²

2.2 Epidemics, 1702–1750

To examine changes in the value of public office following an epidemic, we first estimate:

$$\log(\text{Price}_{i,t}) = \beta_0 \text{Granary}_{i,t} + \beta_1 \text{Epidemic}_{i,t} + \beta_2 \text{Epidemic}_{i,t} \times \text{Granary}_{i,t} + \Theta_t X_i + \Pi U_{i,t} + \lambda_t + \gamma_i + \varepsilon_{i,t}, \quad (2.1)$$

¹²We rasterize these data using inverse-distance weighting between grid points and extract the space-weighted average PDSI for each district-year. See Sellars and Alix-Garcia (2018) for a discussion of the reliability of these data.

where $\log(\text{Price}_{i,t})$ is the logged interpolated price, in silver pesos, of district i in year t ; $\text{Epidemic}_{i,t}$ is an indicator that takes the value one during the first year of an epidemic and in the subsequent five years; $\text{Granary}_{i,t}$ indicates the presence of a granary in the district in year t ; λ_t and γ_i are year and district fixed effects, respectively; and $\varepsilon_{i,t}$ is an error term. We include vectors of time-varying (U_{it}) and time-invariant (X_i) covariates interacted with each year indicator to capture differential associations in the price of office over time. Covariates include the characteristics of each sale (indicators for whether another office was simultaneously sold in the same transaction, for whether a military rank was included as part of the sale, whether the office was secured in part as reward for past merit, and whether the office was sold to be filled in the future); district-specific conditions (logged surface area, logged distance to Mexico City, whether the district is in a malarial zone, whether there was a colonial mine in the district, and whether it contains a city); and our measure of annual drought conditions (PDSI).

We cluster standard errors at the district level in all reported results. We report both unadjusted errors and errors that are inflated using the ratio of interpolated to original observations following the procedure in McCrary (2007) to penalize interpolated observations. We also report wild cluster bootstrap p-values due to the limited number of cross-sectional observations in some specifications (Cameron et al. 2008).

The main parameters of interest are β_1 and β_2 , the coefficients on the post-epidemic indicator and its interaction with the granary indicator. A negative value of β_1 would indicate a lower average sales price of positions in districts without granaries following epidemics, relative to non-crisis periods. A positive value of β_2 would indicate a higher average price in districts with granaries in the aftermath of epidemics, relative to districts without granaries. We also report estimates for the sum of β_1 and β_2 , which corresponds to the difference in the average sales price of office in districts with granaries between the five years following an epidemics and non-crisis periods.

Table 2 presents estimates using all districts (columns 1–3) and only those that are at some point affected by an epidemic in our data (columns 4–6). The baseline models include district and year

Table 2: Epidemics and Office Prices, 1702–1750

	Office Prices, Silver Pesos (log)					
	All districts			Districts Affected by an Epidemic		
	(1)	(2)	(3)	(4)	(5)	(6)
Granary	-0.13* (0.071) {0.15} [0.22]	-0.14* (0.071) {0.15} [0.17]	-0.12 (0.14) {0.28} [0.51]	-0.15* (0.082) {0.18} [0.21]	-0.15* (0.081) {0.17} [0.24]	-0.060 (0.14) {0.28} [0.71]
Post-Epidemic (5 years)	-0.0080 (0.040) {0.087} [0.84]	-0.013 (0.040) {0.085} [0.76]	-0.0025 (0.039) {0.081} [0.95]	-0.0094 (0.051) {0.11} [0.85]	-0.0087 (0.052) {0.11} [0.87]	0.047 (0.061) {0.12} [0.43]
Post-Epidemic (5 years) × Granary	0.25*** (0.081) {0.18} [0.053]	0.25*** (0.081) {0.18} [0.055]	0.23*** (0.083) {0.17} [0.051]	0.25*** (0.081) {0.18} [0.057]	0.24*** (0.075) {0.16} [0.056]	0.25** (0.094) {0.19} [0.097]
Post-Epidemic + Post × Granary	0.24*** (0.07) {0.15} [0.06]	0.23*** (0.07) {0.15} [0.05]	0.23*** (0.08) {0.17} [0.06]	0.24*** (0.07) {0.16} [0.04]	0.23*** (0.07) {0.14} [0.04]	0.30*** (0.10) {0.19} [0.04]
Controls	No	Yes	Yes	No	Yes	Yes
Time-Invariant Controls × Year FE	No	No	Yes	No	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Within-District Mean of DV	7.53	7.53	7.53	7.47	7.46	7.46
Within-District SD of DV	0.22	0.22	0.22	0.22	0.22	0.22
R sq.	0.90	0.90	0.91	0.89	0.90	0.92
Observations	2828	2736	2736	1273	1238	1238
Number of districts	102	99	99	44	43	43

OLS estimations. See equation (2.1) for the econometric specification. The unit of analysis is the district-year. Time-varying controls include PDSI and other characteristics of the sale (see Section 2.1). Time-invariant controls include logged distance to Mexico City, malarial zone, logged surface area, and indicators for a mine or city in the district. Standard errors are clustered at the district level. Unadjusted and degrees-of-freedom adjusted errors are in parentheses and curly brackets respectively. Wild-cluster bootstrap p-values are in brackets. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

fixed effects (columns 1 and 4). We then introduce the time-varying covariates (columns 2 and 5) and the time-invariant covariates interacted with year indicators (columns 3 and 6).

The estimates are substantively similar across specifications and estimating samples. There is no

meaningful estimated change in office sales prices in districts without a granary following disease outbreaks. This contrasts sharply with districts with public granaries, where prices substantially increase (between 23 and 30 percent) in the five years after an epidemic. This increase is significant at conventional levels using unadjusted cluster-robust standard errors or the wild cluster bootstrap, but only in one instance at the 10% level when adjusting the degrees of freedom for interpolation.¹³

In Appendix Section B, we show the robustness of these results to clustering at the contemporary state level (Table B.7), to removing interpolated observations (Table B.2), to using a coarser geographic coding for areas affected by epidemics (B.3), to addressing spatial correlation of the errors using Conley standard errors (B.4), and to excluding Mexico City (Table B.8). We also replicate the analysis using district-level maize suitability as an alternative measure of where *alcaldes* may have been able to capitalize on control of grain markets during crises (Section B.8).

The estimated price increase for granary-containing districts following epidemics is substantial. However, not all epidemics were alike. Smallpox, measles, and matlazahuatl (possibly epidemic typhus; see below) are each characterized by high fever, rash, and a significant mortality rate, but these diseases differed in their severity, their geographic spread, and potentially their consequences for agricultural markets and rent extraction.

In Table 3 we explore this heterogeneity by disaggregating the three types of outbreaks. One pattern remains constant: the price of office increases markedly in the five-year period following an outbreak in districts with public granaries. This increase is of comparable magnitude following measles and matlazahuatl outbreaks, around 25 percent in most specifications. The estimated increase following smallpox epidemics is smaller, at around 10 percent in most specifications. While the estimates in column 6 using the restricted subsample of affected districts and the full vector of time-varying and time-interacted controls differ in magnitude, these also imply a sizable increase in office prices in granary-containing districts of between 16 and 39 percent. Estimates of the total increase in prices in

¹³The coefficient on $Granary_{it}$ is sometimes negative, though this estimate is sensitive to the inclusion of geographic controls. Note that this parameter is estimated from within-district variation in prices and granary presence.

Table 3: Types of Epidemics and Office Prices, 1702–1750

	Office Prices, Silver Pesos (log)					
	All districts			Districts Affected by an Epidemic		
	(1)	(2)	(3)	(4)	(5)	(6)
Granary	-0.13* (0.069) {0.15} [0.22]	-0.14** (0.068) {0.15} [0.17]	-0.13 (0.14) {0.29} [0.50]	-0.15* (0.079) {0.17} [0.17]	-0.15* (0.077) {0.17} [0.21]	-0.047 (0.14) {0.28} [0.78]
Post-Matlazahuatl (5 years)	0.032 (0.046) {0.099} [0.52]	0.022 (0.046) {0.099} [0.65]	0.036 (0.044) {0.092} [0.41]	0.066 (0.055) {0.12} [0.28]	0.055 (0.059) {0.13} [0.40]	0.17*** (0.057) {0.11} [0.0010]
Post-Matlazahuatl (5 years) × Granary	0.21*** (0.077) {0.17} [0.071]	0.21*** (0.076) {0.16} [0.073]	0.23*** (0.088) {0.18} [0.052]	0.21** (0.079) {0.17} [0.065]	0.20*** (0.072) {0.15} [0.075]	0.22** (0.089) {0.17} [0.079]
Post-Measles (5 years)	-0.12 (0.079) {0.17} [0.18]	-0.12 (0.076) {0.16} [0.19]	-0.15 (0.095) {0.20} [0.10]	-0.15* (0.086) {0.19} [0.13]	-0.14* (0.083) {0.18} [0.11]	-0.20* (0.11) {0.22} [0.063]
Post-Measles (5 years) × Granary	0.38*** (0.10) {0.22} [0.038]	0.38*** (0.098) {0.21} [0.043]	0.36*** (0.11) {0.23} [0.046]	0.42*** (0.10) {0.22} [0.040]	0.41*** (0.10) {0.22} [0.047]	0.36*** (0.12) {0.24} [0.11]
Post-Smallpox (5 years)	-0.019 (0.074) {0.16} [0.78]	-0.013 (0.077) {0.17} [0.86]	0.044 (0.11) {0.22} [0.72]	-0.028 (0.078) {0.17} [0.74]	-0.00015 (0.076) {0.16} [1.00]	0.026 (0.11) {0.22} [0.84]
Post-Smallpox (5 years) × Granary	0.12 (0.086) {0.19} [0.25]	0.11 (0.090) {0.19} [0.26]	0.068 (0.10) {0.21} [0.52]	0.12 (0.082) {0.18} [0.25]	0.093 (0.076) {0.16} [0.28]	0.22* (0.12) {0.23} [0.19]
Post-Matlazahuatl + Post × Granary	0.24*** (0.07) {0.16} [0.08]	0.23*** (0.07) {0.16} [0.08]	0.27*** (0.09) {0.18} [0.02]	0.28*** (0.08) {0.18} [0.03]	0.25*** (0.08) {0.16} [0.03]	0.39*** (0.09) {0.18} [0.00]
Post-Measles + Post × Granary	0.26*** (0.07) {0.14} [0.08]	0.26*** (0.07) {0.14} [0.08]	0.21** (0.12) {0.25} [0.16]	0.28*** (0.07) {0.15} [0.08]	0.27*** (0.07) {0.16} [0.11]	0.16 (0.14) {0.27} [0.34]
Post-Smallpox + Post × Granary	0.10** (0.05) {0.11} [0.29]	0.10** (0.06) {0.12} [0.31]	0.11 (0.11) {0.22} [0.34]	0.09** (0.05) {0.11} [0.36]	0.09** (0.05) {0.10} [0.35]	0.24** (0.14) {0.27} [0.14]
Controls	No	Yes	Yes	No	Yes	Yes
Time-Invariant Controls × Year FE	No	No	Yes	No	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Within-District Mean of DV	7.53	7.53	7.53	7.47	7.46	7.46
Within-District SD of DV	0.22	0.22	0.22	0.22	0.22	0.22
R sq.	0.90	0.90	0.91	0.89	0.90	0.93
Observations	2828	2736	2736	1273	1238	1238
Number of districts	102	99	99	44	43	43

OLS estimations. See equation (2.1) for the econometric specification. The unit of analysis is the district-year. Time-varying controls include PDSI and other characteristics of the sale (see Section 2.1). Time-invariant controls include logged distance to Mexico City, malarial zone, logged surface area, and indicators for a mine or city in the district. Standard errors are clustered at the district level. Unadjusted and degrees-of-freedom adjusted errors are in parentheses and curly brackets respectively. Wild-cluster bootstrap p-values are in brackets. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

districts with a granary (i.e., $\hat{\beta}_1 + \hat{\beta}_2$) are significant in nearly all specifications when using unadjusted clustered standard errors. When we calculate t-values using the wild cluster bootstrap — a more reliable approach for the smaller sample (columns 4–6), though not necessarily for models using all districts (columns 1–3) — estimates for the matlazahuatl and measles epidemics, but not smallpox, remain significant at conventional levels in most specifications. As above, these estimates are only significant in some specifications when using degrees-of-freedom adjusted standard errors.

By contrast, in districts without public granaries, epidemics are not generally associated with significant increases in the price of office. Though estimates are positive for matlazahuatl, they are generally much smaller in magnitude and not stable across specifications. Estimates for smallpox are close to 0 and not significant. For measles, office prices in districts without a public granary are estimated to decline by between 12 and 20 percent in the five years after an outbreak, though this decline is only statistically significant at conventional levels using the restricted subsample (and only significant using the wild cluster bootstrap in column 6).

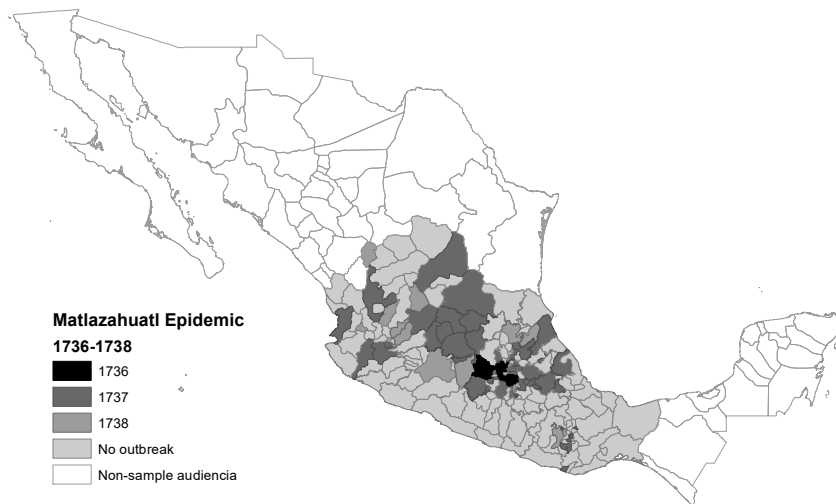
2.3 The Matlazahuatl Epidemic of 1736–1738

There are a few limitations to the preceding analysis. The historical record of most outbreaks is relatively sparse. We are able to identify the period and the region affected by a given epidemic, but we do not always have much information about what districts within an affected region suffered most and which were spared. We also have less information about the temporal spread of disease for most epidemics given the dearth of documentation and therefore rely on coarse information about when outbreaks began. Another consideration is whether the epidemics in our sample are comparable as they differed greatly in severity and in the regions targeted.

To address these and other concerns, we analyze the most significant epidemic of this period, the Matlazahuatl Epidemic of 1736–1738, which has been the subject of considerable scholarly study. Matlazahuatl, a Nahuatl term meaning “net-like rash,” has been blamed for numerous epidemics in Mexican history. There is substantial debate over which identifiable pathogen was responsible for these outbreaks and even over whether all “matlazahuatl” epidemics can be attributed to the

same disease. Classic symptoms included a high fever and the eponymous severe rash covering much of the body. Based on the reported symptoms, the pattern of transmission, and the lack of subsequent immunity for those infected, recent work has linked the disease to epidemic or endemic (murine) typhus, bacteria transmitted by fleas, lice, and rodents in areas of high crowding (León 1982; Cuenya Mateos 1999, p. 143–151; Molina del Villar 2001, p. 60–64; Burns et al. 2014).

Figure 1: Matlazahuatl Expansion in New Spain and Nueva Galicia



Data from Molina del Villar (2001).

The Matlazahuatl Epidemic of 1736–1738 was severe and widespread. Figure 1 illustrates the geographic coverage of the outbreak and the year in which it began in different districts. Much of central and north-central Mexico was eventually affected, though the timing of the outbreak differed, and some areas were spared altogether.

As Molina del Villar (2001) writes, this epidemic was a “mixed crisis” that entailed “several years of shortages, scarcity, illnesses, and deaths” as the disease itself was compounded by a prolonged agricultural crisis across much of central Mexico (p. 179). Grain shortages led to widespread malnutrition, likely exacerbating mortality (Florescano 1969; Cuenya Mateos 1999; Molina del Villar 2001). While drought and early frost can be blamed for some crop loss, the disease itself was responsible for further shortages as it decimated rural communities through mass death and emigration (Cuenya Mateos

1999; Molina del Villar 2001). The concentration of relief institutions in cities probably worsened the crisis as rural populations concentrated in towns to access food (Cuenya Mateos 1999, p. 114).

As discussed in Section 1, public granaries were crucial in regulating the price and supply of grain during crises like these. Following this outbreak, the city councils of Mexico City, Puebla, Tlaxcala, and other affected areas negotiated to acquire grain from nearby large landowners, at least some of whom had cut production to drive up prices (Molina del Villar 2001, p. 196–200).¹⁴ A desperate council in Mexico City even sent emissaries to the granaries of other cities to “buy all of the maize they could, and however they could” (qtd. in Molina del Villar 2001, p. 197). As the head of the city council, local *alcaldes* were empowered to deploy many methods, including outright coercion of smallholders, to acquire and distribute grain. During crises, they could justify purchasing grain at above market prices, providing opportunities for collusion between landowners and local authorities. Thus, while the ostensible goal was to provide relief and subsidize grain for the local population, control over the public granary also provided a window for rent extraction.

We focus on changes in the sales price of office before, during, and after the matlazahuatl epidemic drawing on the detailed geographic data on the outbreak compiled by Molina del Villar (2001). We first reestimate equation 2.1 using a smaller window around the outbreak, from 1728 to 1750 (Table 4). We include all districts in columns 1–3 and restrict the sample to districts that were affected by this epidemic in columns 4–6. As above, all specifications include year and district fixed effects. Columns 2 and 5 introduce the time-varying controls, and columns 3 and 6 include the full vector of time-invariant controls interacted with each year indicator.

Estimates of the sales price increase of offices in districts with a granary are in the same direction and are of a smaller but comparable magnitude to those in Table 2. In the five years after the onset of matlazahuatl, the price of the office of *alcalde mayor* increases by between 9 and 14 percent in districts with a public granary. This increase is at least marginally significant ($p \leq 0.11$) in nearly

¹⁴Similar missions were common during shortages and were sometimes carried out directly by the *alcalde* (Challú 2007, p. 229).

Table 4: The Matlazahuatl Epidemic of 1736–1738 and Office Prices, 1728–1750

	Office Prices, Silver Pesos (log)					
	All districts			Districts Affected by Matlazahuatl		
	(1)	(2)	(3)	(4)	(5)	(6)
Granary	-0.027 (0.028) {0.061} [0.35]	-0.029 (0.028) {0.059} [0.35]	-0.087 (0.073) {0.15} [0.38]	-0.066* (0.036) {0.077} [0.19]	-0.062* (0.036) {0.077} [0.20]	-0.098 (0.10) {0.20} [0.39]
Post-Matlazahuatl (5 years)	0.027 (0.028) {0.061} [0.33]	0.020 (0.028) {0.060} [0.44]	0.033 (0.032) {0.066} [0.28]	0.042** (0.019) {0.041} [0.044]	0.037* (0.020) {0.043} [0.075]	0.021 (0.021) {0.040} [0.31]
Post-Matlazahuatl (5 years) × Granary	0.089* (0.051) {0.11} [0.13]	0.091* (0.051) {0.11} [0.14]	0.10** (0.050) {0.10} [0.10]	0.091* (0.051) {0.11} [0.13]	0.089* (0.052) {0.11} [0.14]	0.067 (0.062) {0.12} [0.39]
Post-Matlazahuatl + Post × Granary	0.12*** (0.05) {0.11} [0.11]	0.11** (0.05) {0.11} [0.11]	0.14*** (0.05) {0.11} [0.08]	0.13*** (0.05) {0.11} [0.05]	0.13*** (0.05) {0.11} [0.07]	0.088 (0.06) {0.12} [0.22]
Controls	No	Yes	Yes	No	Yes	Yes
Time-Invariant Controls × Year FE	No	No	Yes	No	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
Within-District Mean of DV	7.53	7.52	7.52	7.50	7.50	7.50
Within-District SD of DV	0.13	0.13	0.13	0.13	0.13	0.13
R sq.	0.97	0.97	0.97	0.97	0.97	0.98
Observations	1693	1631	1631	651	651	651
Number of districts	94	91	91	36	36	36

OLS estimations. See equation (2.1) for the econometric specification. The unit of analysis is the district-year. Time-varying controls include PDSI and other characteristics of the sale (see Section 2.1). Time-invariant controls include logged distance to Mexico City, malarial zone, logged surface area, and indicators for a mine or city in the district. Standard errors are clustered at the district level. Unadjusted and degrees-of-freedom adjusted errors are in parentheses and curly brackets respectively. Wild-cluster bootstrap p-values are in brackets. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

all specifications using either unadjusted clustered standard errors or the wild-cluster bootstrap, though errors roughly double when adjusting degrees of freedom for interpolation. In districts without public granaries, we estimate a much smaller price increase of between 2 and 4 percent,

and this increase is only statistically significant in columns 4 and 5 using the restricted sample and unadjusted standard errors. In Appendix Table B.3, we present estimates based only on years with office-selling transactions. Though prices are estimated to increase following the matlazahuatl epidemic in these specifications as well, these estimates are noisier and not statistically distinguishable from 0 at conventional levels.

The detailed information available on this epidemic also enables us to take advantage of the differential timing of the outbreak across space. We conduct an event study analysis to more closely examine how office sales prices change around the time of this epidemic (e.g., McCrary 2007). Specifically, we estimate:

$$\log(\text{Price}_{i,t}) = \sum_{j=-5}^5 \theta_j D_{i,t}^j + \lambda_t + \gamma_i + \varepsilon_{i,t}, \quad (2.2)$$

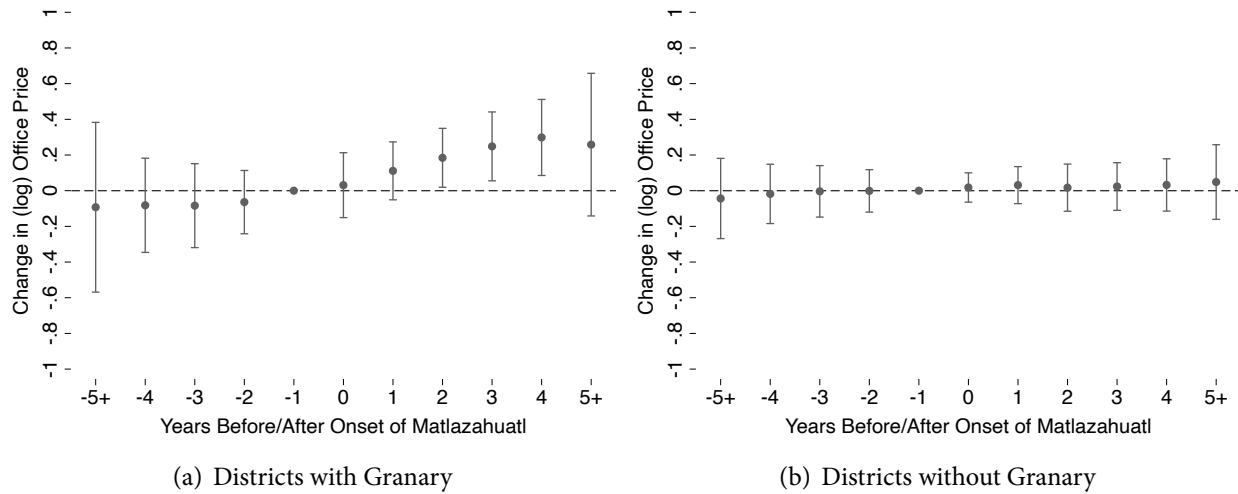
where $D_{i,t}^j$ are five leads and lags of the onset of the epidemic for district i in year t , defined as

$$D_{i,t}^j = \begin{cases} D_i & \text{if } t \leq m_i - 5 \text{ for } j = -5 \\ D_i & \text{if } t = m_i + j \text{ for } -5 < j < 5 \\ D_i & \text{if } t \geq m_i + 5 \text{ for } j = 5, \end{cases}$$

where D_i is an indicator for districts that are at some point affected by the outbreak and m_i is the first year of matlazahuatl in the district. We normalize $\theta_{-1} = 0$. The estimated coefficients θ_j can therefore be interpreted as the change in logged prices relative the year just prior to the outbreak. We present estimates of equation 2.2 separately for districts with and without a public granary by 1736, the first year of this epidemic.

Figure 2 presents coefficient estimates and cluster- and degrees-of-freedom adjusted 95% confidence intervals for the relative change in office prices around the onset of the epidemic.. In the left panel, we present estimates for districts with a public granary where the potential for rent extraction would have been higher. In the years leading up to the epidemic, prices are similar and statistically indistinguishable from the year just before disease onset (standardized to 0 as the reference category). However, starting in the first year of the epidemic, year 0, the sales price of office increases, peaking

Figure 2: The Matlazahuatl Epidemic of 1736–1738 and Office Prices



The figures display the point estimates and cluster-robust 95% confidence intervals with degrees of freedom adjusted for interpolation from an event study estimation including district and year fixed effects. The initial lead is equal to 1 for every year prior to five years before the onset of matlazahuatl, and the final lag is equal to 1 for every year beginning with the fifth year after matlazahuatl. The omitted category corresponds to the year before matlazahuatl began and includes non-affected districts.

in year 4. While the confidence intervals are wide given the relatively few districts with a granary, price increases for years 2, 3, and 4 following the outbreak are statistically significant at conventional levels. This pattern is very different in districts without a public granary (right panel). In these areas, there is no change in the sales price of office in the years leading up to and following the epidemic, relative to the year prior to disease onset. These results are similar when using wild cluster bootstrap confidence intervals (Appendix Figure B.3), which are important given the small number of districts with granaries.

3. Discussion

Our results imply a notable increase in the sales price of offices following epidemics, but only in districts with a public granary where *alcaldes* would have been able to manipulate grain prices and supply during crises. We cannot directly interpret the preceding estimates as causal given that outbreaks are not randomly assigned and surely generate spillovers across districts, including through emigration, demographic collapse, and the disruption of regional economic activities. However, the

patterns that we document are remarkably consistent across epidemics, time periods, and empirical specifications. This evidence is consistent with a sizable increase of rent extraction by *alcaldes mayores* in granary-containing districts following epidemics.

Our two research strategies help to rule out several alternative explanations for the differential rise in office prices in the aftermath of epidemics. While office seekers almost certainly considered many factors in determining how much to bid for positions, the fixed-effects empirical strategies can rule out that the results are driven by either time-invariant features of districts with granaries or common temporal trends in office prices over time, such as changes in the Crown's demand for revenue due to war. Similarly, we are able to rule out changes in prices due to other plausible considerations — such as differential returns to proximity to Mexico City, the presence of mines, elevation, climate conditions, or the characteristics of the sale itself — as we can condition on these variables in our analysis. The abundant historical evidence of *alcaldes* manipulating grain markets and the *repartimiento* for personal enrichment provides further suggestive evidence that observed price increases can be traced to the higher potential for rent extraction in districts with granaries following epidemics.

Given this evidence, what broader lessons can be learned about the economic and political effects of epidemics, the value of holding office, or the potential for corruption? It may not be surprising that some individuals profited from exploiting the shortages and uncertainty caused by epidemics, especially given that government officials are often well positioned to take advantage of such opportunities. As past work has documented, the potential for rent extraction can be higher during a crisis when officials can co-opt additional government spending and public resources meant for relief, including during natural disasters, war, and famine (e.g., Szeftel 2000; Querubin and Snyder 2013; Yamamura 2014; Nikolova and Marinov 2017).

However, the mechanism through which *alcaldes* extracted rents following epidemics in this context was somewhat different and illustrates another channel through which individuals can profit from holding office. The advantage of holding office in this case was not derived from an influx

of resources and aid into the district, but rather from officials' ability to divert local tax revenue, control the supply of critical goods, and exploit market power during times of scarcity. Control over the public granary during a crisis provided officials with the opportunity to misuse local funds to collude with large landowners, a pretext to coercively force some producers to sell at below market prices, and the ability to shut down competing sources of grain supply. Though these policies were ostensibly implemented for the protection of the population — and historical evidence suggests that they may have played a role in mitigating famine in some cases — they also provided a window for exploitation through seizing grain, raising prices, and monopolizing supply when people would have been most desperate to purchase grain. In a context where the value of a position was closely tied to how quickly and efficiently rents could be extracted (e.g., Pietschmann 1972; Pastor 2002), this would have been a critical consideration.

More broadly, existing work has identified many ways in which individuals can profit from the past or present control of public office. Officeholders can leverage their position of power to forge profitable business opportunities for the future, demand payment from private citizens in exchange for favors, direct state resources to family members or business partners, or exploit preferential access to information (e.g., Eggers and Hainmueller 2009; Fisman et al. 2014; Truex 2014; Palmer and Schner 2016; Szakony 2018). Though many of these strategies are most profitable when district resources are plentiful — such as under an expansion of public spending (e.g., Querubin and Snyder 2013; Brollo et al. 2013) or following natural resource windfalls (e.g., Vicente 2010; Knutsen et al. 2017) — our context provides an example of how officials' rents may be higher under scarcity.

4. Conclusion

Epidemics threaten the health and wellbeing of a large population and can paralyze entire economies. Destructive as they are, disease outbreaks may provide an opening for individual enrichment. Recent events have illustrated that there are many ways to profit from scarcity, uncertainty, and fear during an epidemic. Public officials are often especially well positioned to take advantage of these rent-seeking opportunities given their preferential access to resources and information. Officials' misuse of relief

supplies and emergency response institutions is a particularly pernicious form of corruption that may also be especially profitable during crises.

In this paper, we document how the potential for rent extraction and the value of holding office changed following epidemics in colonial Mexico. During epidemics, local officials in districts with a public granary could exploit their control of local grain markets to drive up prices and monopolize the distribution of food. This was a relevant consideration in a context where the monetary value of office was tied to the potential for rent extraction. Using subnational panel data on office sales and disease outbreaks from 1702 to 1750, we show that the sales price of positions in districts with a public granary increased markedly in the five years after an epidemic. By contrast, in areas without a granary, prices changed little and sometimes declined following outbreaks. Detailed information on the Matlazahuatl Epidemic of 1736–1738 allows us to trace the relative change in prices year-by-year, providing additional evidence of rent-seeking in the aftermath of epidemics in granary-containing districts.

Work on the political economy of epidemics has long recognized that some actors may benefit from these immiserating events. Different societal groups may become empowered over the short and long term (e.g., Goldberg 1992; Poos 2004), economic growth trajectories may be altered (e.g., Young 2005; Voigtlander and Voth 2013), and the relative power and resources of political actors may shift (e.g., Sellars and Alix-Garcia 2018; Garfias and Sellars n.d.). This paper provides a reminder that the strategy of personal enrichment through corruption observed during the 2020 Coronavirus Pandemic is nothing new. Three centuries ago, local offices in colonial Mexico sold for higher prices following epidemics, driven by a higher potential for rent extraction during these critical times.

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