6. Detailed Data Description

***Mita* assignment**. A list of colonial districts that contributed to the *mita* is taken from Saignes (1984) (Potosí) and Amat y Junient (1947, p. 249, 264) (Huancavelica).[1] Given that *mita* assignments are at the level of the colonial district and living standards data are at the level of the contemporary district, I used the following procedure to determine the colonial district to which every contemporary district pertained:

1. A colonial district consisted of a principal population center and smaller population centers (*anexos*) located in the surrounding countryside. Many of the *anexos* later became separate districts, that today still bear the same names. Thus, to facilitate matching, I first obtained a detailed list of Peruvian colonial population centers, by district, from *Geografía del Perú Virreinal* (Bueno, 1951 [1764-1778]). For each of these population centers, we know from Saignes and Amat y Junient whether it contributed to the *mita*, which varied at the level of the colonial district, and *Geografía* also lists its colonial province.

2. I next compiled a list of all contemporary districts, by province, in southern and central Peru. Note that a contemporary district in most cases consists of a principal population center and its surrounding countryside.

3. Finally, I assigned every contemporary district from the list compiled in step 2) a *mita* status as follows:

   (a) I began by using names to match, province-by-province, the districts compiled in step 2) with the colonial population centers compiled in step 1).[2] Colonial provinces correspond closely with modern provinces, making matching province-by-province feasible. In no case is there more than one contemporary district or more than one colonial population center with the same name in a single province.

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[1] The list of subjected districts remained the same throughout most of the colonial period, and I use the original *mita* assignments. Specifically, the first *mita repartimiento* (list of subjected districts) was drawn up in 1573. In 1578, eighteen districts subjected in the previous 1575 list do not reappear. They were primarily districts with small populations that do not appear in any later colonial censuses or documents, which suggests that they were incorporated into nearby districts (Bakewell, 1984, p. 83). Moreover, several districts in Condesuyos (now part of Arequipa) were briefly required to contribute in 1578, but were subsequently re-exempt. These districts are coded as non-mita, with results robust to excluding the small portion of the boundary along which they fall.

[2] There are three administrative levels in Peru. The largest is the department, of which there are five in the region that I examine. Below the department is the province and below the province the district, alternatively termed a municipality or a canton in other Latin American countries.

86 % of contemporary non-*mita* districts and 72% of contemporary *mita* districts were assigned *mita* status using this procedure.

(b) For an additional 7 contemporary *mita* districts (3.3 %), I located a district of the same name in the same province in Bachmann's *Historia de la demarcación política del Perú* (1869), a detailed account of historical demarcation in Peru that lists districts formed during the early post-Independence period and the colonial unit from which each split. These districts could thus be matched with their colonial district using this source.

(c) For the remaining 14 % of contemporary non-*mita* districts and 25% of contemporary *mita* districts, it was not possible to document their corresponding colonial district using existing sources on historical political demarcation. All but eight of these districts fell within the interior of the *mita* catchment, as constructed using the districts matched in the previous steps. The eight districts (4 non-*mita* and 4 *mita*) that fell along the boundary (2.6% of contemporary districts being matched) were all located in contemporary provinces that consist entirely of *mita* or non-*mita* districts. Since it is highly probable that each of the eight districts originally belonged to another district in its province, I assigned them the *mita* status of the remaining districts in the province.

This procedure is summarized in Appendix Table A1. It is also of interest to calculate how many contemporary districts existed as juridical entities historically, where I define a contemporary district as existing historically if it's district capital also served as the capital of a colonial district. As documented in column (2) of Table A1, 70% of contemporary non-*mita* districts existed as juridical entities during the colonial period, as compared to 51% of contemporary *mita* districts (Rodriguez Gutierrez, 2000; Bachmann, 1869). This implies that *mita* districts have been somewhat more likely to split into multiple districts during the post-Independence period than non-*mita* districts.[3]

Living Standards. Household level data on consumption and ethnicity are from the National Household Survey (ENAHO), which the Peruvian Institute of Statistics and Information (INEI) collected in the fourth quarter of 2001. ENAHO is similar to the World Bank Living Standards Measurement Survey, but offers a substantially larger sample and more extensive geographic coverage. Consumption is measured in 2000 soles. I subtract

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[3]Districts typically split when a previously smaller hamlet in a district reaches a pre-specified size (this cutoff has varied across time - see Bachmann (1869) and Gutierrez (2000)). The more pronounced colonial demographic collapse in *mita* districts (Wightman, 1990, p. 72) may have offered more scope for later population recovery, leading more new districts to form.

total transfers from total consumption, and normalize to Lima metropolitan prices using the local deflation factors provided in ENAHO (2001).

Individual level data on heights are taken from a census collected by the Ministry of Education that records the heights of six to nine year old school children in the region. I use the complete micro dataset, which lists each child's age in months, gender, height in centimeters, and whether or not the child is stunted. Following international standards, children whose heights are more than two standard deviations below their age-specific median are classified as stunted, with the medians and standard deviations calculated by the World Health Organization from an international reference population.

Geographic controls. I obtain the coordinates of district capitals from departmental statistical reports published by INEI (2001). A GIS map with district administrative boundaries was also produced by INEI. I first code each district as inside or outside the *mita* catchment using the *mita* assignment data described above. Then, I use geospatial software to calculate the Euclidean distance of each district capital to Potosí and to the nearest point on the *mita* boundary, as well as the location of the point.[4]

Elevation data are from the Shuttle Radar Topography Mission (SRTM), organized by the U.S. National Aeronautics and Space Agency (2000). The data are at 30 arc second resolution, which corresponds to a cell size of around one square kilometer. I use the SRTM data to obtain both the area-weighted elevation and slope within each district.[5]

Data used for additional robustness checks. The variable indigenous is taken from ENAHO (2001), which asks the household head and spouse the primary language they speak at home. This indicator is coded as one if the household head primarily speaks an indigenous language (in most cases Quechua) and is coded as zero otherwise. The locations of rivers are found using a GIS dataset of world rivers prepared by the Earth Science Research Institute (2004). The locations of Inca royal estates are obtained from D'Altoy (2002). D'Altoy provides a comprehensive list of estates that are mentioned in Inca histories written during the colonial era or that have been located by modern archaeological digs. Data on migration are from the 1993 Population Census. To examine robustness, I also utilize soil type data, at a scale of one to five million, produced by the Soil Terrain Database for Latin America (SOTERLAC). SOTERLAC employs the standard FAO soil type categorization. I construct a series of soil type dummies equal to one for the soil type(s) which predominate over the

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[4]An equidistant cylindrical projection centered in Peru is used to ensure that distances are minimally distorted when projecting the earth's surface to a flat plane.

[5]For these calculations, I use the UTM WGS1984 - Zone 18S projection, which produces very little distortion when calculating surface areas for the region examined in this paper.

greatest percentage of the district's landmass area, and equal to zero otherwise.

Pre-*mita* outcomes. I obtain data on local per capita tribute contributions, on the allocation of tributes revenues to various groups, and on local demographics just prior to the *mita*'s enactment from Viceroy Francisco Toledo's *Tasa de la Visita General* (Tribute Assessment, General Visit). Toledo blamed demographic collapse on excessive, unregulated rates of tribute extraction by local Spanish elites. Thus, he coordinated an in depth inspection of modern Peru, Bolivia, and Ecuador in the early 1570's to evaluate the maximum tribute that could be demanded from local groups without threatening subsistence. In order to assess ability to pay, colonial authorities ordered teams of surveyors to list the ages and occupations of residents; inspect the communities' grain storage facilities; uncover the tribute that residents provided in the past; investigate a series of geographic and economic questions relating to natural resources and agricultural production; record the tribute, labor services, and land received by indigenous leaders and Spanish administrators; and investigate a variety of other questions. Based on these assessments of ability to pay, authorities assigned varying tribute obligations at the level of the district - socioeconomic group, with districts containing either one or two socioeconomic groups. (Districts with two socioeconomic groups usually consisted of a wealthier group engaged in farming and a poorer group engaged in fishing.) These per capita contributions reflect Spanish authorities' best estimates of local economic prosperity, with more prosperous groups paying more in tribute.

Moreover, the assessment mandates how the tribute revenues were to be divided between rents for Spanish nobility (*encomenderos*), salaries for Spanish priests, salaries for local Spanish authorities (*justicias*), and salaries for indigenous mayors (*caciques*). These data are informative about the financing of local government, about the extent to which the Spanish nobility were permitted to extract local revenues, and about the relative power of competing local administrators to obtain tribute revenues. Finally, the tribute assessment also records the number of tribute-paying males (those aged 18 to 50), boys, old men, and women (of all ages) in each district. These data record the best demographic picture available to colonial administrators just prior to the *mita*.

It is estimated that the original documents from the visita comprised 6,000 to 12,000 folios (Cook, 1975). Cristobal de Miranda produced an unabridged copy of the tribute assessment portion of these documents in 1583. This copy has been preserved for the entire study region, where data were collected primarily in 1572 and 1573 (Miranda, 1975 [1583]).

I aggregate the 1572 data - which is at the level of the *encomienda* - to modern districts. Recall that an *encomienda* is a contiguous piece of territory in which appointed Spaniards

collected tribute and labor services. As part of his book on the Peruvian *encomienda*, historian Jose Puente Brunke (1992) created detailed maps showing the estimated geographic center of each *encomienda*. I aggregate 210 *encomiendas* to contemporary districts by overlaying the contemporary boundaries on the historical maps. While the precise *encomienda* boundaries are not known, because *encomiendas* were typically small, this process is likely to be highly accurate. Moreover, many *encomiendas* could also be matched using names, and both procedures yield the same results.[6]

Haciendas. Data on the concentration of *haciendas* in 1689 are contained in detailed parish reports commissioned by Bishop Manuel de Mollinedo and submitted by all parishes in the bishopric of Cusco. The bishopric included present day Cusco and Apurimac departments, as well as portions of modern Puno and Arequipa departments, thus providing coverage for most districts within 100 kilometers of the *mita* boundary. The reports, submitted by 134 parishes, range from one to thirty-nine pages. All list the number of *haciendas* in the parish's jurisdiction. The data are at the level of the parish subdivision. The reports were published by Horacio Villanueva Urteaga (1982).

I also utilize district level data on *haciendas* from the 19th century. These data, collected by the republican government and preserved in the Treasury Section of Cusco's Municipal Archives, give the percentage of the rural tributary population (males between the ages of 18 and 50) residing in *haciendas*, for districts in the present-day departments of Cusco and Apurimac (two of the five departments in the region examined). Data from 1845, 1846, and 1850 are combined to form the c. 1845 dataset. For some districts, data are available for more than one year within this period. The numbers provided change very little, and the earliest observation is used. The data are contained in Victor Peralta Ruiz's 1991 compilation of Cusco tribute records.

Finally, data from the 1940 Peruvian Population Census on the number of inhabitants in over 23,000 population centers (where anything from a small rural hut to a large city is classified as a population center) are aggregated to the district level to calculate the percentage of the rural population residing in *haciendas*. The census specifically uses the category *hacienda* in classifying population centers. Other rural categories are recognized and unrecognized indigenous communities and peasant landholdings of family or sub-family size (*estancias*).

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[6]Nine 1572 *encomiendas* cannot be matched with current districts because their exact locations are unknown. Most had very low populations and likely disappeared soon after 1572 due to population collapse (Cook, 1982). The contemporary provinces in which these *encomiendas* were located are known, and so I match each with the district containing it's province's capital. If I instead drop these observations, results are unchanged.

The 1689 *hacienda* data are at the level of the colonial parish. While parishes are religious administrative divisions, in practice they corresponded closely with the secular colonial administrative districts. Thus, I aggregate the 1689 data to the level of the modern district using the information in Table A1. If a single colonial district corresponds to more than one modern district, it is assigned to the contemporary district that contains the colonial district capital. Few districts have merged, implying that the unit of observation is similar to what it would be if I used the 1689 parish as the unit of observation. I follow the same procedure to aggregate the 1845 and 1940 *hacienda* data to the level of the modern district.

Education. The 1876 Population Census provides district level data on literacy. For each district, it lists how many individuals are able to read, to write, or neither. A literate individual is defined as one who can read, write, or both. The 1940 Population Census provides information on mean years of schooling in each district. Individual level data on years of schooling are drawn from ENAHO 2001.

Road networks. I calculate the densities of local and regional road networks using a GIS road network map of Peru, produced by the Ministry of Transportation (2006). Roads are classified as paved, gravel, non-gravel, and *trocha carrozable*. The total length of the respective type of road within each district, accounting for changes in elevation, is divided by the surface area of the district to obtain a road network density. Data on the type of road providing access to district capitals (paved, dirt, horse track, or footpath) are from the 2004 Peruvian Municipal Register, a census of district capitals collected by INEI.

Shining Path. Data on the percent of votes cast blank or null in the 1989 municipal elections come from Pareja and Gatti (1990), as do data on whether provincial and district authorities were renewed. Data on blank/null votes in 2002 are from the National Elections Board (*Oficina Nacional de Procesos Electorales*).

Consumption Channels. District level data on the percentage of the labor force whose primary occupation is agriculture are obtained from the 1993 Peruvian Population Census, collected by INEI. An individual is categorized in agriculture if he or she is an agricultural wage laborer or primarily engaged in agricultural production. I create this variable using the finest occupational categories available, as the more aggregated groupings produced by INEI place unskilled agricultural workers in an "other" category rather than classifying them as agricultural producers. The 1994 Peruvian Agricultural Census is used to investigate market participation and supplementary employment. An agricultural household is defined as participating in markets if it sold at least part of its produce from one of its plots produced during the most recent harvest in markets.

Table A1: Assignment Non-*Mita* Districts

District Name	Colonial District	Cusco Metro	Historical Province	Matching Source
Abancay	yes	no	Abancay	G.V.
Accha	yes	no	Chilques y Masques	G.V.
Achoma	yes	no	Arequipa	G.V.
Alca	yes	no	Condesuyos de Cusco	G.V.
Ancahuasi	no (1986)	no	Abancay	Map
Andagua	yes	no	Arequipa	G.V.
Andaray	yes	no	Arequipa	G.V.
Anta	yes	no	Abancay	G.V.
Ayo	yes	no	Arequipa	G.V.
Cabanaconde	yes	no	Arequipa	Map
Cachimayo	no	no	Abancay	Map
Cahuacho	no	no	Arequipa	Map
Caicay	yes	no	Chilques y Masques	G.V.
Calca	yes	no	Calca y Lares	G.V.
Callalli	yes	no	Arequipa	G.V.
Cayarani	yes	no	Arequipa	G.V.
Caylloma	yes	no	Arequipa	G.V.
Ccapi	yes	no	Chilques y Masques	G.V.
Ccorca	no	yes	Cusco	G.V.
Chachas	yes	no	Arequipa	G.V.
Challabamba	yes	no	Chilques y Masques	G.V.
Charcana	yes	no	Condesuyos de Cusco	G.V.
Chichas	yes	no	Arequipa	G.V.
Chilcaymarca	no	no	Arequipa	G.V.
Chinchaypujio	no	no	Abancay	Map
Chinchero	yes	no	Urubabma	G.V.
Chivay	yes	no	Arequipa	Map
Choco	yes	no	Arequipa	G.V.
Chuquibamba	yes	no	Arequipa	G.V.
Colcha	yes	no	Chilques y Masques	G.V.
Colquepata	yes	no	Chilques y Masques	G.V.
Coporaque (Caylloma)	yes	no	Arequipa	G.V.
Cotahuasi	yes	no	Condesuyos de Cusco	G.V.
Coya	yes	no	Calca y Lares	G.V.
Curahuasi	yes	no	Abancay	G.V.
Cusco	yes	yes	Cusco	G.V.
Huambo	no (1875)	no	Arequipa	G.V.
Huancarani	no (1987)	no	Chilques y Masques	G.V.
Huanipaca	no (1893)	no	Abancay	G.V.
Huanoquite	no	no	Chilques y Masques	G.V.
Huarocondo	no (1896)	no	Abancay	G.V.
Huayllabamba	yes	no	Urubabma	G.V.
Huaynacotas	yes	no	Condesuyos de Cusco	G.V.
Ichupampa	yes	no	Arequipa	G.V.
Iray	no	no	Arequipa	Map
Lamay	yes	no	Calca y Lares	G.V.
Lari	yes	no	Arequipa	G.V.
Limatambo	yes	no	Abancay	G.V.

Table A1: Assignment Non-*Mita* Districts

District Name	Colonial District	Cusco Metro	Historical Province	Matching Source
Maca	yes	no	Arequipa	G.V.
Machaguay	no (1889)	no	Arequipa	G.V.
Madrigal	yes	no	Arequipa	G.V.
Maras	yes	no	Urubabma	G.V.
Mollepata	no	no	Abancay	G.V.
Ollantaytambo	yes	no	Urubabma	G.V.
Omacha	yes	no	Chilques y Masques	G.V.
Orcopampa	yes	no	Arequipa	G.V.
Paccaritambo	yes	no	Chilques y Masques	G.V.
Pampacolca	yes	no	Arequipa	G.V.
Pampamarca (La Union)	yes	no	Condesuyos de Cusco	G.V.
Paruro	yes	no	Chilques y Masques	G.V.
Pillpinto	no	no	Chilques y Masques	G.V.
Pisac	yes	no	Calca y Lares	G.V.
Poroy	no	yes	Cusco	G.V.
Pucyura	yes	no	Abancay	Map
Puyca	no (1891)	no	Condesuyos de Cusco	G.V.
Quechualla	yes	no	Arequipa	G.V.
Salamanca	yes	no	Arequipa	G.V.
San Antonio De Chuca	no	no	Arequipa	Map
San Jeronimo	yes	yes	Cusco	G.V.
San Pedro De Cachora	no	no	Abancay	G.V.
San Salvador	yes	no	Calca y Lares	G.V.
San Sebastian	yes	yes	Cusco	G.V.
Santiago	no	yes	Cusco	G.V.
Sayla	yes	no	Arequipa	Map
Saylla	no	yes	Cusco	G.V.
Sibayo	no	no	Arequipa	G.V.
Tamburco	no	no	Abancay	Map
Tapay	yes	no	Arequipa	G.V.
Taray	yes	no	Calca y Lares	G.V.
Tauria	no	no	Arequipa	Map
Tipan	no	no	Arequipa	G.V.
Tisco	yes	no	Arequipa	G.V.
Tomepampa	yes	no	Condesuyos de Cusco	G.V.
Toro	yes	no	Condesuyos de Cusco	G.V.
Tuti	yes	no	Arequipa	G.V.
Unon	no	no	Arequipa	Map
Urubamba	yes	no	Urubabma	G.V.
Viraco	yes	no	Arequipa	G.V.
Wanchaq	no (1987)	yes	Cusco	G.V.
Yanaquihua	yes	no	Arequipa	G.V.
Yanque	yes	no	Arequipa	G.V.
Yaurisque	yes	no	Chilques y Masques	G.V.
Yucay	yes	no	Urubabma	G.V.
Zurite	yes	no	Abancay	G.V.

Table A1: Assignment *Mita* Districts

District Name	Colonial District	Cusco Metro	Historical Province	Matching Source
Accomarca	no	no	Vilcas Huaman	G.V.
Achaya	yes	no	Azangaro	G.V.
Acomayo	yes	no	Quispicanchis	G.V.
Acopia	no	no	Quispicanchis	G.V.
Acos	yes	no	Quispicanchis	G.V.
Alto Pichigua	no (1994)	no	Canas y Canchis	Map
Anco-Huallo	no	no	Andahuaylas	G.V.
Andahuaylas	yes	no	Andahuaylas	G.V.
Andahuaylillas	yes	no	Quispicanchis	G.V.
Andarapa	no	no	Andahuaylas	G.V.
Antabamba	yes	no	Aymaraes	G.V.
Apongo	no	no	Vilcas Huaman	G.V.
Asillo	yes	no	Azangaro	G.V.
Asquipata	no (1986)	no	Vilcas Huaman	Map
Atuncolla	yes	no	Lampa	G.V.
Ayaviri	yes	no	Lampa	G.V.
Belen	no	no	Lucanas	G.V.
Cabana	yes	no	Lampa	G.V.
Cabanilla	yes	no	Lampa	G.V.
Cabanillas	no	no	Lampa	G.V.
Calapuja	yes	no	Lampa	G.V.
Caminaca	yes	no	Azangaro	G.V.
Canaria	yes	no	Vilcas Huaman	G.V.
Capacmarca	yes	no	Chumbivilcas	G.V.
Capaya	no	no	Aymaraes	G.V.
Caracoto	yes	no	Lampa	G.V.
Caraybamba	no	no	Aymaraes	G.V.
Carhuanca	yes	no	Vilcas Huaman	G.V.
Cayara	no	no	Vilcas Huaman	G.V.
Ccarhuayo	no	no	Quispicanchis	Map
Ccatca	yes	no	Quispicanchis	G.V.
Chacoche	no	no	Aymaraes	G.V.
Chalcos	no	no	Lucanas	G.V.
Chalhuanca	yes	no	Aymaraes	G.V.
Challhuahuacho	no (1994)	no	Cotabambas	Map
Chamaca	yes	no	Chumbivilcas	G.V.
Chapimarca	yes	no	Aymaraes	G.V.
Chavina	no	no	Lucanas	G.V.
Checacupe	yes	no	Canas y Canchis	G.V.
Checca	yes	no	Canas y Canchis	G.V.
Chiara	yes	no	Andahuaylas	G.V.
Chilcayoc	no	no	Lucanas	G.V.
Chincheros	yes	no	Andahuaylas	G.V.
Chipao	yes	no	Lucanas	G.V.
Chumpi	yes	no	Lucanas	Bachmann
Chuquibambilla	yes	no	Cotabambas	Bachmann
Circa	yes	no	Aymaraes	G.V.
Cocharcas	yes	no	Andahuaylas	G.V.
Colca	yes	no	Vilcas Huaman	G.V.
Colcabamba	yes	no	Aymaraes	G.V.
Colquemarca	yes	no	Chumbivilcas	G.V.
Colta	yes	no	Parinacochas	G.V.
Combapata	yes	no	Canas y Canchis	G.V.
Concepcion	no	no	Vilcas Huaman	G.V.

Table A1: Assignment *Mita* Districts

District Name	Colonial District	Cusco Metro	Historical Province	Matching Source
Condoroma	yes	no	Canas y Canchis	G.V.
Coporaque (Espinar)	yes	no	Canas y Canchis	G.V.
Coracora	yes	no	Parinacochas	G.V.
Corculla	yes	no	Parinacochas	G.V.
Coronel Castaneda	no	no	Lucanas	Map
Cotabambas	yes	no	Cotabambas	G.V.
Cotaruse	no	no	Aymaraes	G.V.
Coyllurqui	no	no	Cotabambas	G.V.
Cupi	yes	no	Lampa	G.V.
Curasco	no (1993)	no	Cotabambas	G.V.
Curpahuasi	no	no	Cotabambas	Map
Cusipata	no	no	Quispicanchis	Map
El Oro	no	no	Aymaraes	G.V.
Espinar	yes	no	Canas y Canchis	G.V.
Gamarra	no	no	Cotabambas	G.V.
Haquira	yes	no	Cotabambas	G.V.
Huacana	yes	no	Lucanas	G.V.
Huaccana	no (1985)	no	Andahuaylas	Map
Huambalpa	yes	no	Vilcas Huaman	G.V.
Huancapi	no	no	Vilcas Huaman	G.V.
Huancarama	yes	no	Andahuaylas	G.V.
Huancaray	no	no	Andahuaylas	G.V.
Huaquirca	no	no	Aymaraes	G.V.
Huaro	no	no	Quispicanchis	Map
Huaya	yes	no	Vilcas Huaman	Map
Huayana	no (1984)	no	Andahuaylas	G.V.
Huayllati	yes	no	Cotabambas	G.V.
Huayllo	no	no	Aymaraes	Map
Independencia	no (1986)	no	Vilcas Huaman	Map
Jose Domingo Choquehuanca	no	no	Azangaro	Map
Juan Espinoza Medrano	no	no	Aymaraes	G.V.
Juliaca	yes	no	Lampa	G.V.
Justo Apu Sahuaraura	no (1984)	no	Aymaraes	Map
Kaquiabamba	no (1995)	no	Andahuaylas	Map
Kishuara	no	no	Andahuaylas	Map
Kunturkanki	no	no	Canas y Canchis	Map
Lambrama	yes	no	Aymaraes	G.V.
Lampa (Lampa)	yes	no	Lampa	G.V.
Lampa (Paucar del Sara Sara)	yes	no	Parinacochas	G.V.
Langui	yes	no	Canas y Canchis	G.V.
Layo	yes	no	Canas y Canchis	G.V.
Livitaca	yes	no	Chumbivilcas	G.V.
Llalli	yes	no	Lampa	G.V.
Llusco	yes	no	Chumbivilcas	G.V.
Lucre (Aymaraes)	no	no	Aymaraes	G.V.
Lucre (Quispicanchi)	no	yes	Quispicanchis	G.V.
Macari	yes	no	Lampa	G.V.
Mamara	yes	no	Cotabambas	G.V.
Manazo	no	no	Lampa	G.V.
Manazo	no	no	Lampa	G.V.
Mara	yes	no	Cotabambas	G.V.
Marangani	yes	no	Canas y Canchis	G.V.
Marcabamba	no	no	Parinacochas	Map
Micaela Bastidas	no	no	Cotabambas	Map

Table A1: Assignment *Mita* Districts

District Name	Colonial District	Cusco Metro	Historical Province	Matching Source
Morcolla	no	no	Lucanas	Map
Mosoc Llacta	no	no	Quispicanchis	Map
Nicasio	yes	no	Lampa	G.V.
Nunoa	no	no	Lampa	G.V.
Ocobamba	yes	no	Andahuaylas	G.V.
Ocongate	yes	no	Quispicanchis	G.V.
Ocoruro	no	no	Canas y Canchis	Map
Ocros	yes	no	Vilcas Huaman	G.V.
Ocuviri	yes	no	Lampa	G.V.
Ongoy	yes	no	Andahuaylas	G.V.
Oropesa (Antabamba)	yes	no	Aymaraes	G.V.
Oropesa (Quispicanchi)	yes	yes	Quispicanchis	G.V.
Orurillo	yes	no	Lampa	G.V.
Oyolo	yes	no	Parinacochas	G.V.
Pacapausa	yes	no	Lucanas	Bachmann
Pachaconas	no (1872)	no	Aymaraes	G.V.
Pacobamba	no	no	Andahuaylas	Map
Pacucha	no	no	Andahuaylas	Map
Paico	yes	no	Lucanas	G.V.
Palca	no (1901)	no	Lampa	Bachmann
Pallpata	no	no	Canas y Canchis	Map
Pampachiri	yes	no	Andahuaylas	G.V.
Pampamarca (Canas)	yes	no	Canas y Canchis	G.V.
Pararca	yes	no	Parinacochas	Bachmann
Paratia	no	no	Lampa	Map
Pataypampa	no	no	Cotabambas	Map
Paucarcolla	yes	no	Paucarcolla	G.V.
Pausa	yes	no	Parinacochas	G.V.
Pichigua	yes	no	Canas y Canchis	G.V.
Pichirhua	yes	no	Aymaraes	G.V.
Pitumarca	no	no	Canas y Canchis	G.V.
Pocohuanca	no	no	Aymaraes	Map
Pomacanchi	yes	no	Quispicanchis	G.V.
Pomacocha	no	no	Andahuaylas	G.V.
Progreso	no	no	Cotabambas	Map
Pucara	yes	no	Lampa	G.V.
Puno	yes	no	Paucarcolla	G.V.
Puquio	yes	no	Lucanas	G.V.
Puyusca	no	no	Lucanas	Map
Quehue	no	no	Canas y Canchis	G.V.
Querobamba	yes	no	Lucanas	G.V.
Quinota	no	no	Chumbivilcas	G.V.
Quiquijana	yes	no	Quispicanchis	G.V.
Ranracancha	no (1993)	no	Andahuaylas	Map
Rondocan	yes	no	Quispicanchis	G.V.
Sabaino	no (1872)	no	Aymaraes	Map
San Antonio (Grau)	no	no	Cotabambas	Map
San Antonio (Puno)	yes	no	Paucarcolla	Bachmann
San Antonio De Cachi	no	no	Andahuaylas	Map
San Cristobal	no (1986)	no	Lucanas	G.V.
San Francisco De Ravacayco	no	no	Lucanas	Map
San Javier De Alpabamba	no	no	Parinacochas	G.V.

Table A1: Assignment *Mita* Districts

District Name	Colonial District	Cusco Metro	Historical Province	Matching Source
San Jeronimo	yes	no	Andahuaylas	G.V.
San Jose De Ushua	no	no	Parinacochas	Map
San Juan De Chacna	no	no	Aymaraes	Map
San Miguel De Chaccrampa	no (1990)	no	Andahuaylas	Map
San Pablo	yes	no	Canas y Canchis	G.V.
San Pedro (Canchis)	no	no	Canas y Canchis	G.V.
San Pedro (Lucanas)	no	no	Lucanas	Map
San Pedro De Larcay	no	no	Lucanas	G.V.
San Salvador De Quije	no	no	Lucanas	Map
Sanayca	no	no	Aymaraes	G.V.
Sancos	yes	no	Lucanas	Bachmann
Sangarara	no (1861)	no	Quispicanchis	G.V.
Santa Ana De Huaycahuacho	no	no	Lucanas	G.V.
Santa Lucia	no	no	Lampa	Map
Santa Maria De Chicmo	no	no	Andahuaylas	Map
Santa Rosa	no (1990)	no	Cotabambas	Map
Santa Rosa (Melgar)	yes	no	Lampa	G.V.
Santiago De Paucaray	no	no	Lucanas	Map
Santiago De Pupuja	yes	no	Azangaro	G.V.
Santo Tomas	yes	no	Chumbivilcas	G.V.
Sara Sara	no (1985)	no	Parinacochas	Map
Saurama	no (1986)	no	Vilcas Huaman	Map
Sicuani	yes	no	Canas y Canchis	G.V.
Soras	yes	no	Lucanas	G.V.
Soraya	yes	no	Aymaraes	G.V.
Suyckutambo	no	no	Canas y Canchis	Map
Talavera	yes	no	Andahuaylas	G.V.
Tambobamba	yes	no	Cotabambas	G.V.
Tapairihua	no	no	Aymaraes	G.V.
Tinta	yes	no	Canas y Canchis	G.V.
Tintay	no	no	Aymaraes	G.V.
Tiquillaca	yes	no	Paucarcolla	G.V.
Tirapata	no	no	Azangaro	Map
Toraya	no	no	Aymaraes	G.V.
Tumay Huaraca	no	no	Andahuaylas	Map
Tupac Amaru	no	no	Canas y Canchis	G.V.
Turpay	no	no	Cotabambas	G.V.
Turpo	no	no	Andahuaylas	G.V.
Umachiri	no (1982)	no	Lampa	G.V.
Upahuacho	no	no	Lucanas	Map
Uranmarca	no (1985)	no	Andahuaylas	Map
Urcos	yes	no	Quispicanchis	G.V.
Velille	yes	no	Chumbivilcas	G.V.
Vilavila	yes	no	Lampa	G.V.
Vilcabamba	no	no	Cotabambas	G.V.
Vilcas Huaman	no	no	Vilcas Huaman	G.V.
Vilque	yes	no	Paucarcolla	G.V.
Virundo	no (1985)	no	Cotabambas	Map
Vischongo	yes	no	Vilcas Huaman	G.V.
Yanaca	no	no	Aymaraes	G.V.
Yanaoca	yes	no	Canas y Canchis	G.V.

G.V. = *Geografía del Perú Virreinal* (Bueno, 1951 [1764-1778]), Bachmann = *Historia de la demarcación política del Perú* (Bachmann, 1869).

Table A2: 1572 Tribute Details

Tribute type	Percent of districts contributing	Mean per capita contribution	Standard deviation of contribution	Percent of total tribute
Precious metals	100	4.151	0.591	0.816
Grains	89.6	0.666	0.451	0.120
Textiles	53.7	0.348	0.227	0.037
Animals	92.5	0.146	0.093	0.027
Total	100	5.070	0.388	1.00

Source: Miranda (1975 [1583]). Values are in 1572 pesos. The sample is limited to fall within 50 km of the *mita* boundary.

Table A3: Specification Checks

|	Tribute 1572 (1)	*Haciendas* 1689 (2)	*Haciendas* 1845 (3)	*Haciendas* 1940 (4)	Literacy 1876 (5)	Educ. 1940 (6)	Edu.c 2001 (7)	Regional Roads (8)	Market Partic. (9)
Alternative functional forms for RD polynomial: Baseline I									
Linear polynomial in latitude and longitude									
Mita	0.010	-9.482***	-0.180***	-0.119**	-0.022***	-0.215**	-0.121	-35.755***	-0.170***
	(0.028)	(1.897)	(0.057)	(0.055)	(0.007)	(0.084)	(0.544)	(9.333)	(0.029)
Quadratic polynomial in latitude and longitude									
Mita	0.033	-12.535***	-0.096	-0.056	-0.017	-0.283	-1.588*	-28.327*	-0.098**
	(0.036)	(2.894)	(0.066)	(0.081)	(0.012)	(0.171)	(0.886)	(15.212)	(0.044)
Quartic polynomial in latitude and longitude									
Mita	-0.028	-13.807***	-0.071	-0.161*	-0.001	-0.188	-1.655	-20.868	-0.090**
	(0.033)	(3.701)	(0.065)	(0.085)	(0.014)	(0.202)	(1.025)	(16.541)	(0.036)
Alternative functional forms for RD polynomial: Baseline II									
Linear polynomial in distance to Potosí									
Mita	0.015	-10.592***	-0.201***	-0.118**	-0.021***	-0.181**	-0.130	-37.862***	-0.225***
	(0.025)	(2.084)	(0.070)	(0.047)	(0.006)	(0.077)	(0.439)	(9.131)	(0.032)
Quadratic polynomial in distance to Potosí									
Mita	0.020	-10.569***	-0.206***	-0.148***	-0.022***	-0.192**	-0.307	-35.503***	-0.228***
	(0.030)	(2.082)	(0.073)	(0.047)	(0.006)	(0.077)	(0.457)	(9.201)	(0.032)
Quartic polynomial in distance to Potosí									
Mita	0.020	-10.175***	-0.208**	-0.156***	-0.021***	-0.176**	-0.347	-32.626***	-0.215***
	(0.030)	(2.053)	(0.085)	(0.046)	(0.007)	(0.079)	(0.449)	(9.000)	(0.029)
Interacted linear polynomial in distance to Potosí									
Mita	.028	-9.734***	-0.212***	-0.128**	-0.017***	-0.076	-0.218	-37.801***	-0.144***
	(0.032)	(2.459)	(0.068)	(0.050)	(0.006)	(0.068)	(0.435)	(9.132)	(0.031)
Interacted quadratic polynomial in distance to Potosí									
Mita	0.031	-8.989***	-0.215***	-0.229***	-0.011	0.026	-0.322	-42.103***	-0.149***
	(0.036)	(2.460)	(0.062)	(0.063)	(0.009)	(0.107)	(0.438)	(-11.888)	(0.034)
Alternative functional forms for RD polynomial: Baseline III									
Linear polynomial in distance to mita boundary									
Mita	0.027	-11.152***	-0.216***	-0.116**	-0.021***	-0.197***	-0.113	-35.707***	-0.232***
	(0.029)	(2.123)	(0.059)	(0.047)	(0.006)	(0.073)	(0.424)	(9.367)	(0.035)
Quadratic polynomial in distance to mita boundary									
Mita	0.040	-11.170***	-0.211***	-0.123***	-0.021***	-0.202***	-0.111	-35.752***	-0.223***
	(0.030)	(2.103)	(0.059)	(0.046)	(0.006)	(0.074)	(0.430)	(9.349)	(0.032)
Quartic polynomial in distance to mita boundary									
Mita	0.026	-11.499***	-0.209***	-0.119**	-0.022***	-0.215***	-0.262	-37.451***	-0.227***
	(0.030)	(2.029)	(0.062)	(0.046)	(0.007)	(0.080)	(0.405)	(9.367)	(0.032)
Interacted linear polynomial in distance to mita boundary									
Mita	0.063	-11.961***	-0.172*	-0.069	-0.010	-0.230	-1.505	-37.753**	-0.067
	(0.047)	(3.000)	(0.087)	(0.090)	(0.013)	(0.215)	(0.954)	(17.850)	(0.048)
Interacted quadratic polynomial in distance to mita boundary									
Mita	0.023	-9.110**	-0.198*	-0.037	0.005	-0.120	-0.672	-48.316**	0.003
	(0.062)	(3.833)	(0.111)	(0.119)	(0.019)	(0.256)	(1.761)	(23.911)	(0.056)
Ordinary Least Squares									
Mita	0.018	-11.172***	-0.216***	-0.118**	-0.021***	-0.180**	-0.102	-36.931***	-0.224***
	(0.031)	(2.104)	(0.058)	(0.046)	(0.006)	(0.078)	(0.429)	(9.193)	(0.036)
Geo. Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes
Boundary F.E.s	yes	yes	yes	yes	yes	yes	yes	yes	yes
Clusters	65	74	81	119	95	118	52	185	178
Observations	65	74	81	119	95	118	4038	185	160,990

Robust standard errors, adjusted for clustering by district, are in parentheses. All regressions include geographic controls and boundary segment fixed effects. Coefficients significantly different from zero are denoted by: *10%, **5%, and ***1%.
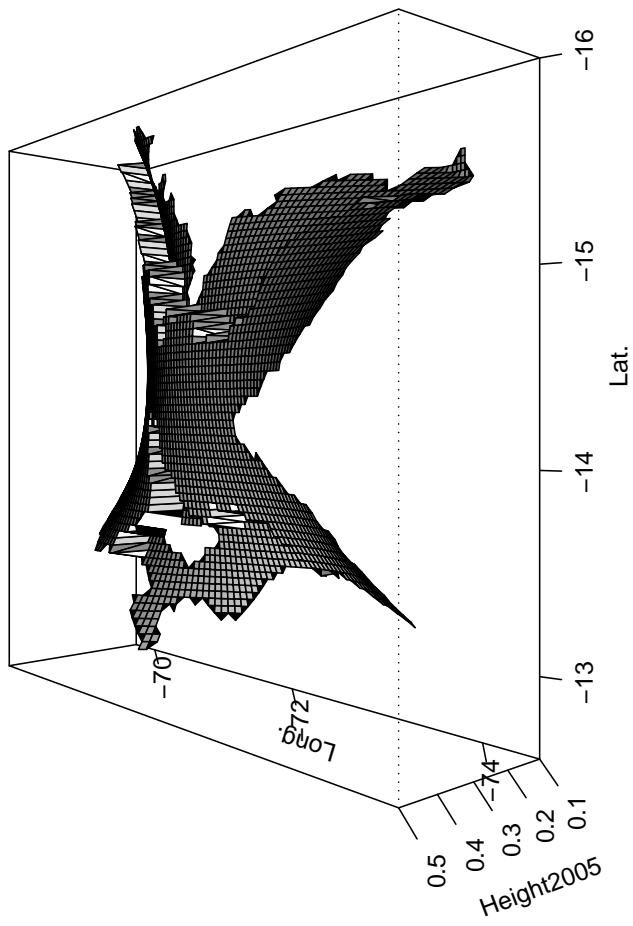
Figure A1
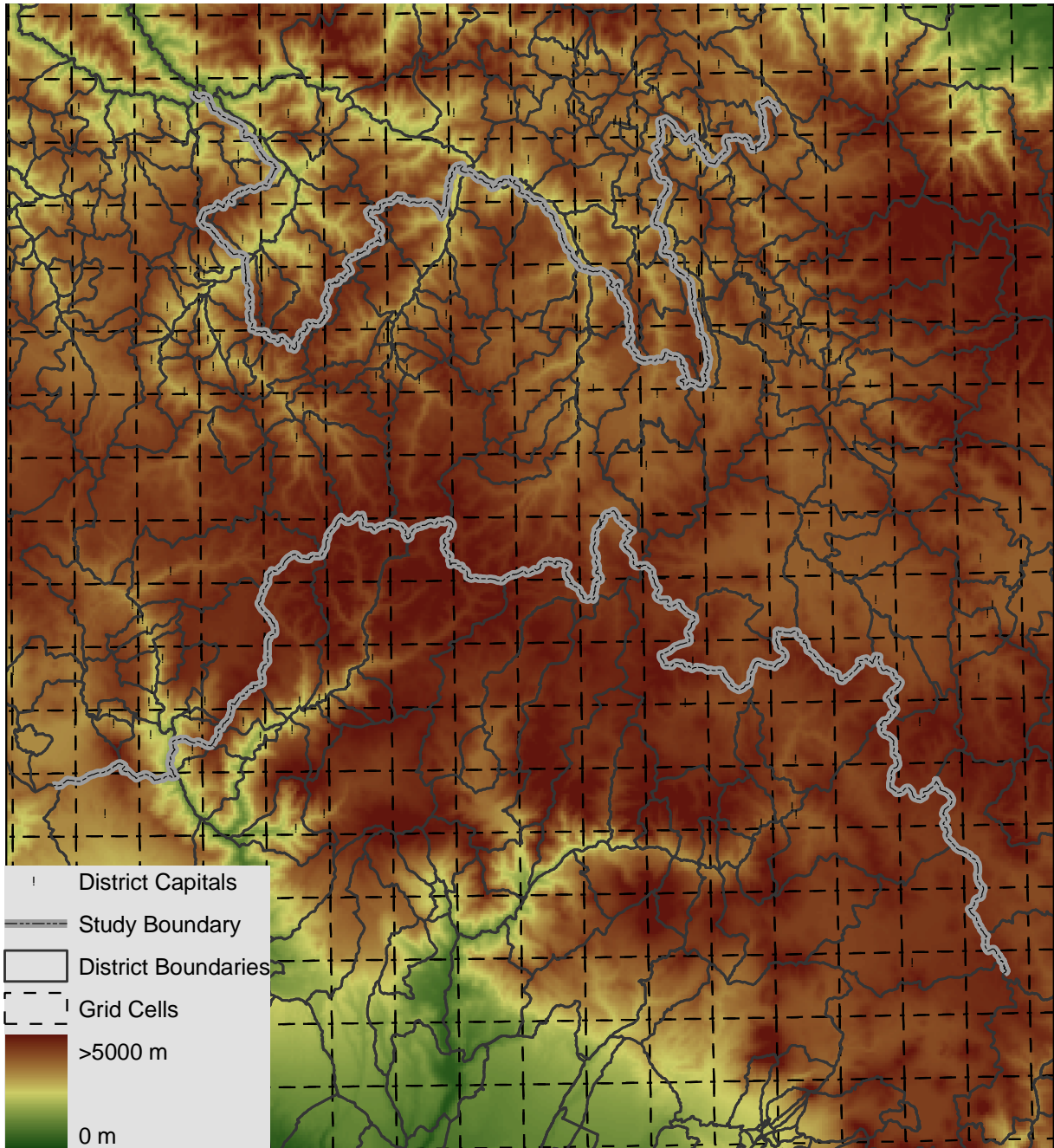
Mita districts fall between the two thick lines. The circles show district capitals within 50 kilometers of the *mita* boundary. The boundaries for the 20 x 20 km grid cells - used in Table 1 - are in light gray. District boundaries are in black, and elevation is shown in the background.
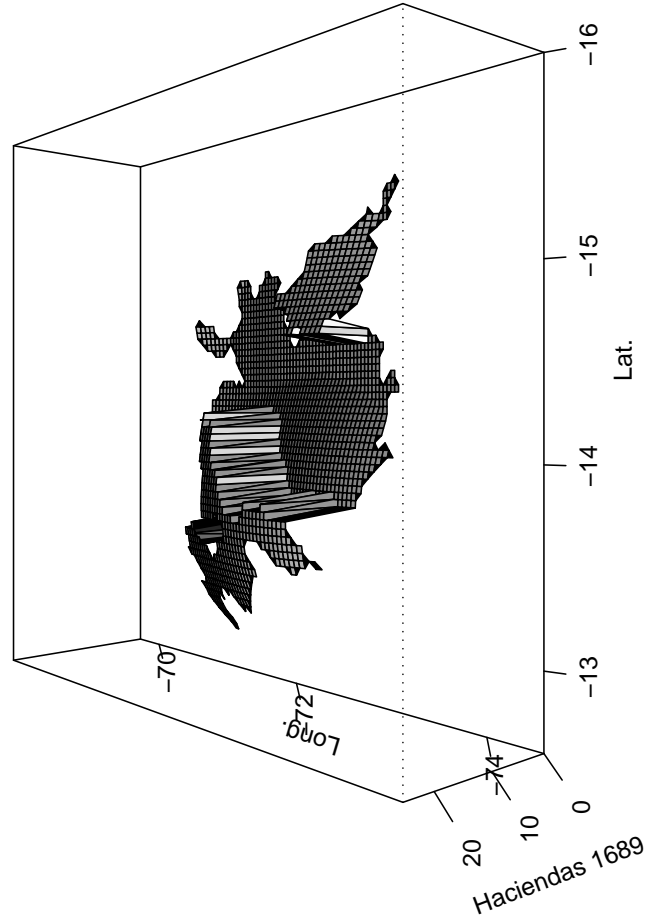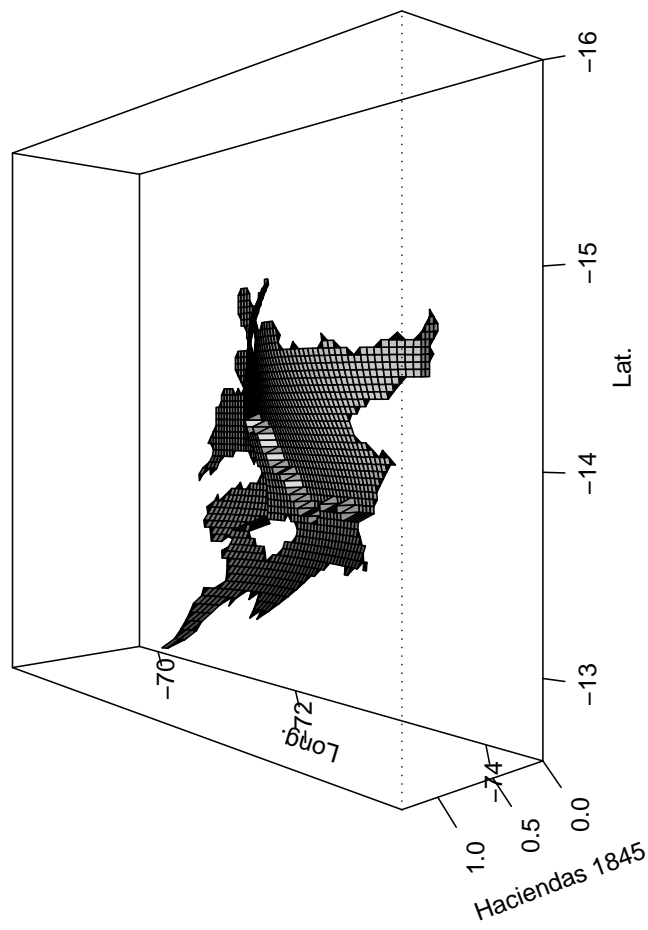
Figure A2
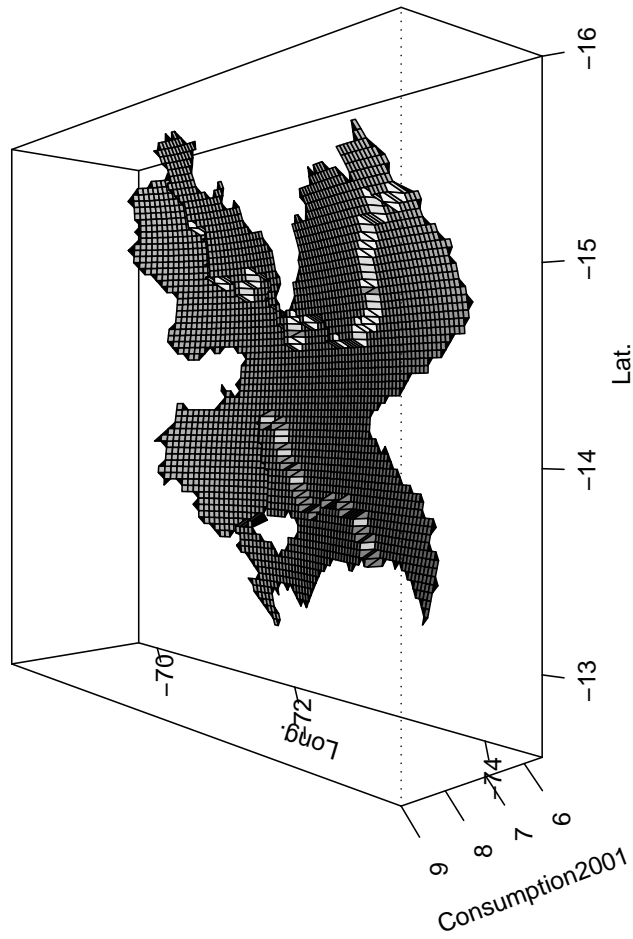
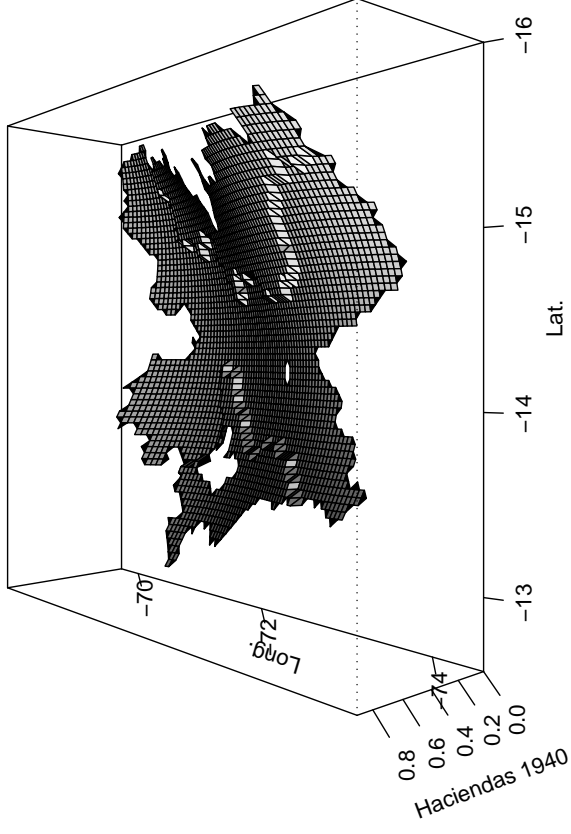
(a) No RD Polynomial

(b) Linear Polynomial in Lon-Lat

(c) Quadratic Polynomial in Lon-Lat
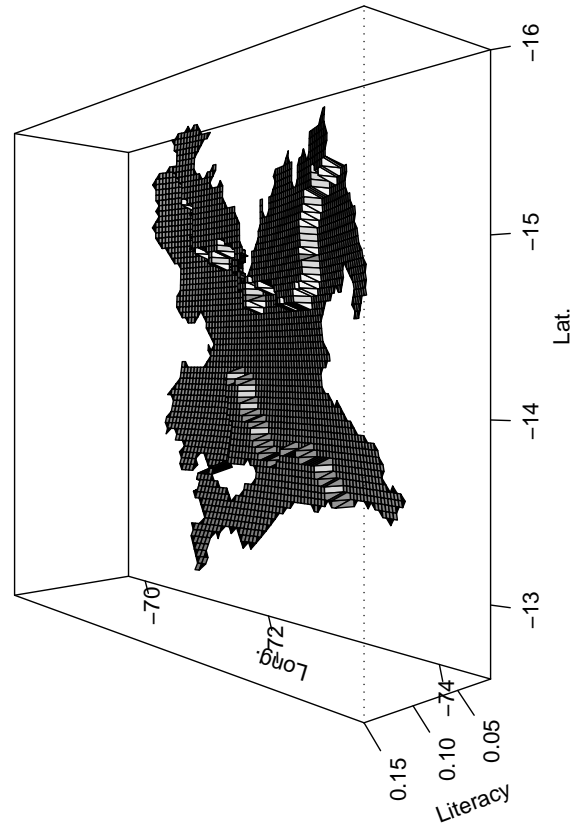
(d) Cubic Polynomial in Lon-Lat
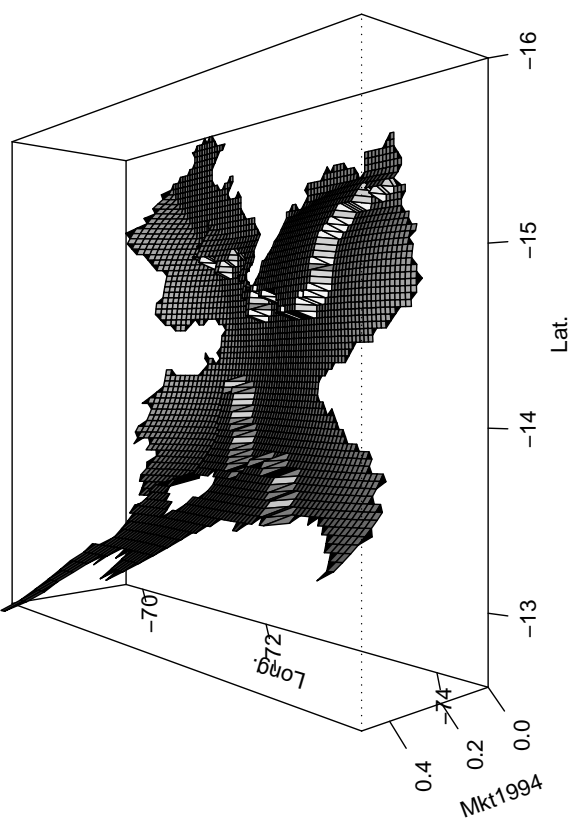
Figure A2 (cont.)

(e) No RD Polynomial
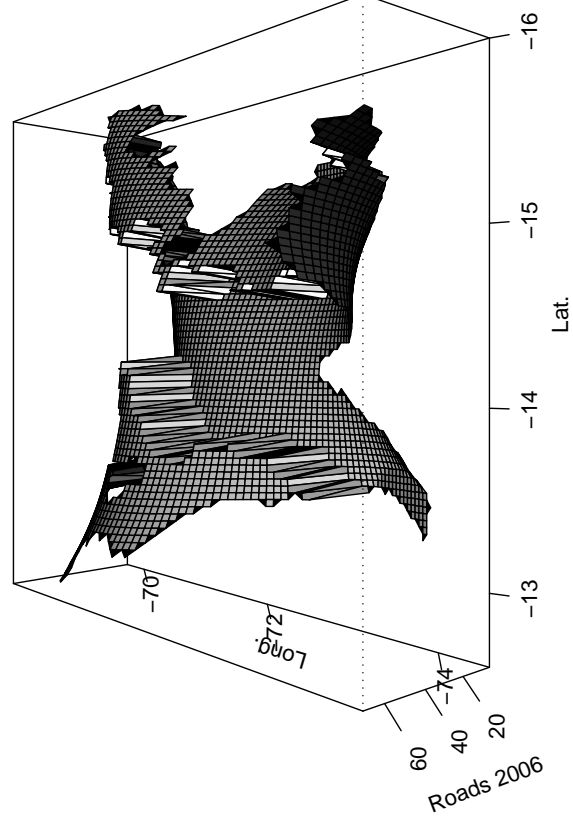
(f) Linear Polynomial in Lon-Lat

(g) Quadratic Polynomial in Lon-Lat

(h) Cubic Polynomial in Lon-Lat

Notes: The figures plot predicted values from regressing various outcomes on the *mita* dummy and a cubic polynomials in longitude and latitude.