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of Catholic Church Land in Colombia

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**THE EDUCATIONAL EFFECTS OF 19TH CENTURY DISENTAILMENT
OF CATHOLIC CHURCH LAND IN COLOMBIA***

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Abstract

The aim of this paper is to analyze the effects of land concentration prompted by the distribution of disentaileed Church land during the second half of the 19th century on the accumulation of human capital, in early 20th century Colombia¹. Utilizing existing primary sources on the process of land disentanglement and the 1912 National Census, descriptive statistics and econometric evidence show a significant and negative relationship between the amount of disentaileed land during the 1870s at municipal level with literacy and school enrollment rates of males in 1912.

KeyWords: *Disentanglement policy, land concentration, institutions, human capital, Colombian history*

JEL classification: N10 N36 N46

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¹ Disentaileed land refers to the land expropriated from the Church by the liberal government during the 19th century and sold in public auction. The municipal common lands (*ejidos*) were also auctioned during this process.

**LOS EFECTOS DE LA DESAMORTIZACION DE LAS TIERRAS DE LA
IGLESIA CATOLICA EN EL S. XIX EN COLOMBIA,
SOBRE LA EDUCACION***

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Resumen

El documento tiene como objetivo analizar los efectos que tuvo la concentración de tierras desamortizadas durante la segunda mitad del siglo XIX sobre la acumulación de capital humano, a principios del siglo XX en Colombia². Utilizando las fuentes primarias existentes sobre el proceso de desamortización de tierras y el Censo Nacional de 1912, la estadística descriptiva y el ejercicio econométrico muestran la existencia de una relación negativa y significativa entre la concentración de la tierra desamortizada durante la década de 1870 a nivel municipal con la tasa de alfabetismo y la proporción de hombres matriculados en la escuela en 1912.

Palabras clave: Políticas de desamortización, concentración de tierra, instituciones, capital humano, historia de Colombia.

Clasificación JEL: N10 N36 N46

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² La tierra desamortizada corresponde a aquella que durante la segunda mitad del siglo XIX el gobierno liberal le expropió a la Iglesia. Los ejidos ó tierras comunales también fueron rematados durante este proceso.

THE EDUCATIONAL EFFECTS OF 19TH CENTURY DISENTAILMENT OF CATHOLIC CHURCH LAND IN COLOMBIA*

“That one of the major obstacles for the prosperity and growth of our Nation is the lack of movement and free circulation of a large amount of property, which is the basis of public wealth”

(President Tomás Cipriano de Mosquera, 1861)

1. Introduction

The study of institutions—that is, the rules of the game operative in society, (North, 1993)—and their evolution in history is essential to explain the level of economic performance and the accumulation of human capital present in any given country. This approach has been widely used as an explanation for the poor economic performance present throughout Latin America (Acemoglu et al, 2001a; 2001b; Engerman and Sokoloff, 2002). Favorable conditions in the colonial period—the abundance of precious metals and native labor—facilitated the establishment of excluding institutions—economic, political, and those related to property rights—that solely benefited a small group of individuals made up by landowners and those of Spanish origin. Even following Independence, these institutions failed to be modified—excluding institutions persisted—as the small group of landowners and the ruling elite continued reaping for themselves their benefits³.

It was expected that under the Republican period (after independence) the concentration of land would change. All land reforms undertaken by the 19th century governments were

* We thank Maria Teresa Ramirez and Hermes Tovar for their insights and useful comments to a previous version of this paper.

³ See Engerman and Sokoloff (2001), De Ferranti et al (2003).

aimed at increasing the access and ownership of land to new social groups. It was widely believed that a more egalitarian distribution of land property rights would help to overcome poverty and backwardness. The most important land policies carried out after Independence were the sale and grant of public lands (*baldíos*) and the disentanglement (expropriation) of the Catholic Church lands. The analysis of the process, outcomes and impact of the latter is the purpose of this paper.

The liberal government undertook the expropriation of the Church assets during the second half of the 19th century arguing their lack of market activity (mortmain, Villegas, 1977)⁴. All through the colonial period, the clergy had accumulated a large amount of wealth, and had entailed land due to its evangelizing function⁵. The liberal government believed that the concentration of land was one of the principal obstacles of economic growth. This prompted President Tomás Cipriano de Mosquera, on September 9, 1861, to decree the disentanglement of mortmain properties in order to implement a more egalitarian distribution of land⁶, (Alarcón, 1973).

During the 19th century, republican institutions attempted to modify the structure of property rights in order to establish a more democratic distribution of land. One of these attempts was the land disentanglement. Historical scholarship on this subject has shown that this goal was not achieved and land remained concentrated in the hands of individuals

⁴ The decree ordered that all ecclesiastic properties (urban, rural) with little market activity be appropriated by the State. Not include in this process were: properties associated with the sect, schools, hospitals, prisons, markets and the residence of clergy members.

⁵ According to Alarcón (1973: 50.), the Church obtained ownership over a large number of indigenous lands by claiming that the value of these was inferior to that of soul salvation.

⁶ See Núñez (1862)

belonging or connected to political circles⁷. As a result, disentailed land was appropriated by the elite and did not bring about a less concentrated structure of property (Villegas, 1977). Such outcome may have reinforced the perverse effects of excluding institutions—originated during the colonial period—on the provision of public goods. Based on the quantitative evidence of disentailed land purchases, the primary objective of this paper is to empirically verify the negative relationship that exists between the concentration of disentailed land on the accumulation of human capital in 1912 measures by rates of literacy and school enrollment of males. This paper comprises five sections in addition to this introduction. The first section reviewed the literature on institutions and long run economic performance. The second approaches the historical context in which disentanglement occurred corroborating that land distribution remained in fact concentrated. The third will examine the relationship between the accumulation of human capital and the concentration of disentailed land. Then, an econometric model is estimated and their results interpreted. The last section will discuss the conclusions.

2. Literature review

The current differences in economic development between countries originated even as early as in the colonial period. There is a significant amount of scholarship dedicated to explore the historical roots of economic divergence. For instance Acemoglu et. al, (2001a) argue that those countries that were relatively wealthy during the colonial period (as is the case of the Spanish colonies in Latin America for example) are less developed today in comparison to those that were poor during the same period (United States and Canada). They conclude that the types of institutions established during the colonial

⁷ Díaz (1977), Alarcón (1973) and Villegas (1977)

period are responsible of the today's divergence. The initial wealth of Latin America comprised of precious metals and a native population incentive the creation of extractive institutions for the only benefit of the colonizers, so that a very limited group of individuals exercised political and economic power. In contrast, the lack of native labor and of gold or silver mines in North America motivated the establishment of more permanent settlements thus developing more egalitarian institutions.

Similarly Engerman and Sokoloff (1999, 2002) and De Ferranti et al (2003) point out that in North America, geographic conditions (that favored crops characterized by constant returns scale) along with the scarcity of indigenous labor, promoted the settling of colonizers on family farms (a more egalitarian distribution of land), bringing about a more democratic structure of the political and economic power⁸. In Latin America, the availability of indigenous labor and geographic conditions that favored crops that exhibited economies of scale in large plantations led to the rise of less democratic institutions, in which a small group of individuals sought their own advantage to the detriment of the majority of the population. The nature and structure (democratic or excluding) will reproduce over time leading to the persistence of the initial political and economic inequalities.

Acemoglu et al (2001a, 2001b) and Engerman and Sokoloff (1999, 2002) claim that the excluding institutions of the colonial period persisted even after Independence (most of

⁸ This analysis excludes the Southern portion of the United States, where the existence of abundant land and geographic conditions that were favorable to agriculture that promoted the presence of economies of scale, explains why institutions established in this area were less democratic than those established in the rest of the country (economies of scale stimulated use of slavery as a labor institution. On the heterogeneity of the American colonies, see Walton and Rockoff (1998).

them in the 19th century) as the elite continued reaping the political and economic benefits they had enjoyed until then. Likewise, De Ferranti et al (2003) conclude that not only did initial inequality persist but it actually intensified during the 19th century. For instance, electoral rules in Latin America restricted severely voting rights (Engerman and Sokoloff, 2001) for the wealthy and educated males. In contrast, in North America, restrictions on voting imposed during the colonial period were partially lifted during the 19th century, thus increasing the proportion of voters. In this way, the percentage of people that voted in Latin America was significantly less than in the United States or Canada⁹. Up to now, an emphasis has been placed on how initial inequalities in Latin America affected institutional development benefiting the elite comprised in large proportion by landowners. Now it will be explored how institutions that arose in the 19th century, particularly those related to property rights over land, may have contributed to the persistence of inequality by influencing the accumulation of human capital.

Policies of land distribution during the 19th century in the Americas are at the heart of the persistence (or change) of property rights institutions (Engerman and Sokoloff 1999, 2002). For instance, in the United States the Homestead Act in 1862 that granted 160 acres of public lands to each colonizer (Walton and Rockoff, 1998) demonstrating productive use of the terrain promoted an egalitarian land distribution. In contrast, the 19th century Mexican, Argentinean, and Brazilian agrarian policies showed high degree of inequality (Engerman and Sokoloff; 1999, 2002). The distribution of either the new

⁹ In the United States and Canada, initial voting restrictions (gender, literacy, landholdings) were gradually lifted so that at the beginning of the 19st century voter participation was high: over 50% of adult males in the United States voted, (Engerman and Sokoloff, 2001). Also they suggest that at the end of the 19th century, electoral participation in Latin America was 75 years behind that of the United States and Canada. Voting rates in Latin America at that time hovered around the 1-2% mark.

land settlements at the frontier or the old ones (for instance. Church states) just mirrored the colonial land inequality which would lead to the reproduction of excluding institutions. One of the most important features of such institutional structure is the lack of incentives that the elite have to invest in public goods¹⁰. The studies by Galor, et al (2004), Deininger and Squire (1998) and Sokoloff and Zolt (2005) among others find similar patterns: land concentration negatively influenced investment of human capital¹¹.

The scholarship presented here concludes that land concentration and the excluding institutions that it brings about would persist and reproduce over time. Policy choices in societies with large wealth inequalities would be less oriented to the provision of public goods. In the long run they will exhibit low level of human capital, productivity and per capita income. In societies in which land was scarce or distributed equally (less political influence of landowners) the economy benefited from a greater investment in human capital and better economic growth. This paper will analyze the extent to which Colombia's land policies –in particular the distribution of the expropriated church assets– in the second half of the 19th century did not modify neither the existing pattern of land distribution nor the policy choices towards provision of public goods. Quite the opposite,

¹⁰ A study by Banerjee and Lyer (2002) found that in India in 1981 the regions characterized by large estates –the so called “landlord districts” inherited from the British rule– investment in human capital was lower than in the regions exhibiting a more egalitarian distribution of land. They argue that in the landlord districts the concentration of power and political influence of landowners inhibited through policy decisions a larger provision of public goods.

¹¹ Galor et al (2004) demonstrates, through the construction of a model of general equilibrium, that public expenditure on education (taxes) is desirable to everyone in society with the exception of landowners due to the great wealth and position of political privilege they possess. Deininger and Squire (1998) have found a negative connection between land inequality and poverty levels. They argue that inequality affects negatively education spending. Sokoloff and Zolt (2005), by analyzing the effects that initial inequality and equality have on the investment in public goods, have found that in the case of Latin America—societies with initial inequalities—the elite utilized its political influence to perpetuate those institutional structures that benefited them. In this way their contribution to public goods remained minimal as they refused paying direct taxes on property and wealth.

despite government intentions allocation of church assets in the second half of 19th century concentrated in a handful of individuals. Such outcome even deepened as will be seen below the prevailing low level of human capital investment (measured as 1912 literacy and school enrollment rates).

3. Disentailed land: Toward the consolidation of secular latifundio?¹²

History of the disentailment of mortmain land (1861 – 1886)

The catechization and evangelization exercised by the Church during the colonial period endowed it with a great deal of political and economic power, which it maintained even after Independence and during the Republican era¹³. During Liberal rule (in the mid 19th century), the government began to argue that the land retained by the Church—due to their lack of mobility on the market (mortmain)—was an obstacle to the economic progress of the country. The liberals, then, took measures to decrease the Church’s political and economic power and to weaken the relationship between Church and State¹⁴. On September 9, 1861, the provisional president of the country, Tomás Cipriano de Mosquera, publicly announced the “September 9, 1861 Decree, on the *“disentailment of*

¹² Díaz (1977) has emphasized that while the process of land disentailment abolished clerical estates it fortified lay estates.

¹³ During the colonial period the enormous patrimony retained by the Church was problematic even for the Spanish rule as the viceroys denounced it before the king, (Alarcón, 1973; Villegas, 1977). Disentailment policies had already taken place previously (Villegas, 1977). Before the liberal era, the republican government adopted certain measures to weaken the Church’s economic power: for example in 1821 they closed several convents that were considered insignificant.

¹⁴ Anticlerical reforms adopted by the liberal government include the following: i). 1847: liberalization of land censuses which was a tax paid to the church ii). 1851: suppression of the tithes and ecclesiastic privileges iii). 1853 Church-State separation, doing away with the annuities assigned to the Church. iv). 1861: ‘Rights of tuition,’ that is the swearing of the clergy to the constitution and to existing and new laws, (in Alarcón, 1973; Díaz, 1977; Villegas, 1977; Meisel and Jaramillo, 2007).

mortmain land”, that deposed the Church of the land and wealth it had retained since the colonial period, making this land available for free circulation on the market¹⁵.

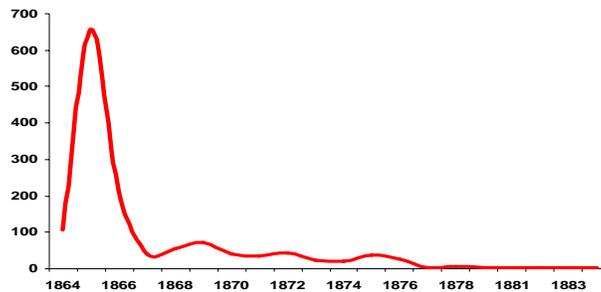
The liberal government passed this law with the political objective of ending the alliance between the Church and the conservative party, but also had two economic goals in mind. Through the sale of mortmain land, the government desired to procure the necessary resources to alleviate the fiscal deficit resulting from Independence, (Alarcon, 1973; Villegas, 1977; Díaz, 1977; Meisel and Jaramillo, 2007). In addition, the decree intended to better land distribution as well as to promote the insertion of Church’s properties into market circulation, in order to stimulate the country’s economic development. Three were the mechanisms utilized to this end (see: Cipriano de Mosquera, 1861; Núñez, 1862; Alarcón, 1973; Díaz, 1977; Villegas, 1977; Ofisel, 1975; Palacios et al, 2002; Meisel and Jaramillo, 2007). The first consisted of offering these lands for sale in public auctions, allowing for purchases to be made in bonds; the second offered them on credit (so that payment could be made in installments) and lastly, large estates were divided up into smaller parcels¹⁶. With this, the liberals hoped that farmers and their families be able to access these lots in public auctions and thus achieving a more equal land distribution. Minister Rafael Núñez’ writing “*public flyer explaining disentanglement*” (1862) such policy was stated as follows:

¹⁵ Disentanglement was not a process unique to Colombia, there are cases in other countries in which disentanglement was utilized as an instrument used to reduce the fiscal deficit that afflicted these countries: España (1766-1768 y 1808-1823), Paraguay (1811), Argentina (1822), Chile (1823), Uruguay (1838), Mexico (1856 - 1876), (Alarcón,1973; Meisel and Jaramillo, 2007).

¹⁶ As per the dividing up of large estates, Article 6 of the September 9, 1861 Decree states: “Once those rustic and urban haciendas have been inventoried, and the terms of rent have been determined, they will be transferred in public auction by lots, the division of which will be made in the smallest possible proportions, in order to increase competition”, in Cipriano de Mosquera (1861).

“Because this is not just about resuscitating and putting into circulation a considerable amount of inactive values, (which is itself an ambitious task) nor is it just about paying the Public Debt, which is an even greater one: rather this is about certain precedents, because we work with eminently fertile soil and are on the brink of a more progressive era. I repeat, this is about solving with disentanglement to the greatest extent possible, the arduous and immense problem of the egalitarian distribution of property.”

Graphic No. 1
Number of purchases of disentailed land



Source: AGN, Sección República, Fondo de Bienes Desamortizados (Rollo 1-30), Diario Oficial (1864 – 1884), Villegas (1977) and authors' calculations.

The process of disentailment of mortmain land continued throughout the liberal period until the conservative party came to power in 1887, when the government after reestablishing the relationship between Church and State, returning to the Church that land that had not been auctioned, thus compensating it for the policies enacted by the liberal government, (Villegas, 1977). Nevertheless, it is important to note that the most dynamic period of this process took place during the 1860s. During the 1870s sales began to plummet because of the strong opposition of the Church as well as the elimination of the Agency of Disentailed land whose task of land sales was given to the Treasury, an organization that had more pressing matters to attend to than these auctions (Villegas, 1977; Meisel and Jaramillo, 2007). As graph No. 1 shows, most of the purchases of disentailed land occurred during the liberal government 1864-1871 falling abruptly during the next decade.

Property rights and concentration of disentaile land in Colombia

The previous section has described how the Central government by the decree 9 *September of 1861*, enacted the disentanglement policy with the purpose of land redistribution. But was this objective achieved? Did this result in a more egalitarian distribution of land?

In order to determine the distribution of disentaile land two sources of information were used: the Disentaile Land Fund and the Official Journal or *Diario Oficial*. These sources show the lists and description of assets to be auctioned and their approval by the Junta Suprema Directiva del Crédito Nacional (Supreme Board of Directors of National Debt), which was in charge of determining the winner of the auction. The information compiled from these sources was: the date of sale of the lot, its location (city/state), size, valued price, the (paid) auction price —mostly in bonds—and the name of the buyer of each lot¹⁷. In total 1,385 land sales were registered in different towns and States.

As previously mentioned, the legislation of disentaile land provided for fairer property distribution, with the hope that farmers and indigenous people would be able to acquire this land through public auctions, (Alarcón, 1973). However, what little historical

¹⁷ At this point it is important to note that sales could be approved or disapproved by the Supreme Board of Directors of National Debt, depending on the relationship between the sale price and the valued price. This meant that any given lot could be auctioned repeatedly for years until the Board of Directors approved the sale. Measurement in the auction records were standardized in square meters according to the Courvel guide (1940). If the size was unknown, it was calculated based on the auction sale price, valued price, year of the purchase and location.

scholarship there is on this subject claims that this objective was not accomplished (Alarcón, 1973; Díaz, 1977; Villegas, 1977; Ofisel, 1975). Information from newspapers of that time suggests that because the process was corrupt—those in charge of land disentailment favored a small group of individuals—the buyers who ultimately purchased these lands in public auctions were wealthy individuals, usually landowners with close ties to political circles¹⁸. For instance, a letter from the people (non elite) to the president Tomás Cipriano de Mosquera mentioned:

*“This very majority (of the liberal population) regrets the disgrace of our decrees, and everything associated with the behavior of a small circle of speculators, whose liberalism is only proportionate to the growth of their wealth and the filling of their caskets (...) This wrong has reached the degree to which the Junta de Crédito Nacional, in keeping with the demands and influence of this circle, has become an unrecognizable authority, arbitrator of the fortune and interests of citizens, filling the coffers of one, snatching away the bread and sustenance from others (...). In order to eradicate this cancer, your authority is needed”.*¹⁹

Historical research based on popular opinion articulated in newspapers has concluded that although land ownership did change hands (the Church and its communities), new landowners consisted of a small group of individuals. In addition to corruption, the scarce participation was due to ignorance of the procedures and costs involved in acquiring lots through public auction (costs of transaction), poverty (making it impossible for farmers to buy bonds), and finally, threats exercised by the Church on a population that was largely

¹⁸ Villegas (1977) documents public opinion expressed in newspapers of the time.

¹⁹ Letter sent to President Tomás Cipriano de Mosquera in 1862, cited by Villegas (1977), pp. 55. Corruption of the elite was also pointed out in President Mosquera’s response to the people’s letter: *“Secure in this impunity, the members of the Junta Suprema Directiva del Credito Nacional continue to be negligent with respect to the law, in the fulfillment of their responsibilities, corruption and rebellion against the orders of legal authority...”*

Catholic (Alarcón, 1973; Díaz, 1977; Villegas, 1977; Ofisel, 1975)²⁰. In conclusion, pre-existing institutional factors determined that the redistribution of property rights based on disentailment would just reproduce land concentration that had existed since the colonial period.

Based on historical scholarship it is possible to argue that despite *de jure institutions* stimulated agrarian reform and land redistribution, *de facto institutions*—the influence of landowners on governmental entities (for example the Junta Suprema Directiva del Crédito Nacional and the Agency of Disentailed Land)—encouraged the concentration of disentailed land. The actual distribution of disentailed land in Table 1 proves such claim.

Table No. 1
Distribution of disentailed land by State

	Km2	% of KM2	Valued price (thousands of pesos)	Paid price (thousands of pesos)	No. of purchases	Gini
	(1)	(2)	(3)	(4)	(5)	(6)
Cundinamarca	298,49	17,34	843,26	3002,74	501	0,8
Santander	361,08	20,98	146,43	537,97	310	0,93
Boyacá	249,21	14,48	305,07	1295,73	193	0,75
Nariño	81,05	4,71	188,9	815,88	189	0,8
Norte de Santander	166,41	9,67	32,1	73,19	49	0,88
Tolima	218,27	12,68	51,88	119,6	48	0,72
Cauca	9,1	0,53	29,04	99,89	45	0,63
Antioquia	1,02	0,06	35,51	80,47	16	0,72
Huila	25,73	1,5	8,5	41,98	15	0,83
Bolívar	7,29	0,42	4,16	8,82	8	0,65
Sucre	301,83	17,54	2,9	7,41	5	0,54
Casanare	1,29	0,08	3,6	10,7	3	0,46
Valle del Cauca	0,16	0,01	1,51	4,15	3	0,64
Total	1720,95	100	1652,86	6098,52	1385	0.89

Source: AGN, Sección República, Fondo de Bienes Desamortizados (Rollo 1 a 30), Diario Oficial (1864 – 1884), Villegas (1977), Courvel (1940), and authors' calculations.

Table No. 1 shows the number of Km2 of disentailed land by department, the valued price, the paid price of the lands that were auctioned (in bonds), the number of purchases

²⁰ According to Sánchez et al (2007), the fragility of the *de jure institutions* with respect to those of *de facto* is also visible in the process of distribution of uncultivated lands during the second half of the 19th century, in which large tracts of land were granted to estate holders to the detriment of farmers.

made in each State, and the concentration index (Gini) calculated with the information of the area (m²) purchased by each buyer in a particular State from 1864 to 1884. During these years a total of 1720,95 Km² of rural and urban land was disentailed in Colombia. Utilizing current geographical boundaries as a reference, the States (departments) where the most mortmain land was disentailed were: Santander (20.98%), Cundinamarca (17.34%), Sucre (17.54%) and Boyacá (14.48%). The number of purchases made by department is as follows: Cundinamarca (501), Santander (310), Boyacá (193) and Nariño (189), for a total of 1193 purchases (86.14% of the auctions). These findings are consistent with other historical studies which pinpoint that the process of disentanglement was heterogeneous at regional level and that the States that most contributed to disentanglement were Cundinamarca, Boyacá, and Cauca (Nariño was at that time part of the state of Cauca), (Alarcón, 1973, Villegas: 1977; Díaz 1977; Meisel and Jaramillo, 2007)²¹.

Based on the data in Table No. 1), it is clear that the States that most contributed to disentanglement, that is, where the most purchases took place (86.14%), show concentration indexes closer to 1 (column 8): Santander (0.93), Cundinamarca (0.8), Nariño (0.8) and Boyacá (0.75). The same pattern of high inequality is as well observed in some States with less number of purchases: Norte de Santander (49 purchases, Gini of 0.88), Huila (15 purchases, Gini of 0.83), Tolima (48 purchases, Gini of 0.72). In the States with the smallest number of transactions (Sucre, Casanare, Valle del Cauca) the Gini coefficient was relatively low (close to 0.5). For the country as a whole the Gini index was 0.89 confirming the popular belief that disentailed land concentrated in the hands of very few individuals, instead of promoting a more equal distribution of property.

²¹ Historical studies show that Antioquia was one of the states in which disentanglement was most difficult due to clerical opposition, see Díaz (1977), Ofisel (1975).

Since article 6 of the 1861 Decree emphasized that large tracts of Church lands had to be divided in small lots in order to increase the number of individuals with access to disentailed land some scholar have argued (Meisel and Jaramillo, 2007) that the disentailment of mortmain land succeeded in prompting a more egalitarian access to land. As has been however shown, land ended up in the hands of a few individuals so that one of the principal goals of land reform failed. Villegas (1977) for instance stressed that small lots were not desirable to buyers, making it necessary to assemble them in larger tracts in order to be offered for sale. Thus, Villegas writes:

“For example, in order to sell off common lots (ejidos) in Bogotá, it was necessary to suspend the sale of smaller lots and regroup them into larger lots because there were no buyers for the smaller lots.”²²

In fact, the evidence shows that allocation of small terrains among different farmers did not happen and what actually occurred was a consolidation of large-scale properties (large estates). For example, in Pasto, the Sandoná Hacienda was divided up into 48 lots, 39 of which were purchased by Manuel J. Valencia. The Negavita property in Pamplona was divided into 5 lots, 4 of which were bought by Dámaso Zapata. The Hacienda las Monjas en Facatativá was divided into 34 lots bought by 6 people, confirming that the disentailment of mortmain land rather reinforced large-scale holdings²³.

²² Villegas (1977:60).

²³ Source: AGN, Sección República, Fondo de Bienes Desamortizados (Rollos 1-30), Diario Oficial (1864-1884).

Table No. 2
Top ten buyers of disentailed land

	Number of purchases	Km2	Number of purchases as % of total	Km2 as % of total
Alejandro Córdova	44	134,87	3,18	7,8
Lucrecio Salcedo	71	46,6	5,13	2,7
Isaac Montejo	56	44,68	4,04	2,6
Lope Restrepo	42	42,26	3,03	2,5
Camilo A García	27	6,89	1,95	0,4
Manuel J Valencia	39	4,78	2,82	0,3
Perea y Páez	61	1,78	4,4	0,1
Trino Vargas	28	1,04	2,02	0,1
Timoteo Hurtado	44	0,98	3,18	0,1
Cruz Ballesteros	28	0,54	2,02	0
Total	440	284,42	31,77	16,53

Source: AGN, Sección República, Fondo de Bienes Desamortizados (Rollo 1 a 30), Diario Oficial (1864 – 1884), Courvel (1940) and authors' calculations.

The disentitlement process encompassed as a whole 1385 purchases with 334 buyers. The top ten buyers (3% of all) in Table No. 2 made up 440 purchases (31.77% of the total), retaining almost 17% of the total area of land sold. These figures clearly confirm that large estates and land concentration were strengthened as just a small number of individuals gained control of a big chunk of the expropriated land. Additionally, some land was concealed (unregistered mortmain land), mostly in regions in which the Catholic Church exercised a strong influence, like Cauca and Antioquia (Meisel and Jaramillo, 2007), confirming the difficult task of the government in effectively

implementing its legislation in order to successfully enact land reform. In conclusion, land distribution policies implemented by the Central government were little successful because: i).they reproduced land concentration by favoring a small group of individuals and thus did not promote the more equal distribution of land property which was one of the chief goals of the legislation; and to less extent .ii). the clergy exercised opposition through the concealment of mortmain land and the political power it retained in certain departments, for example, in Antioquia.

It has been empirically proven that disentaileed land remained concentrated and that the objectives of the legislation *-de jure institutions-* were not attained because landowners power and influence as well as the Church *-de facto institutions-* curbed the implementation of land reforms. Thus, where there were initial inequalities, institutions evolved in a less democratic manner (perpetuating inequality) benefiting a small elite as is the case of disentaileed land. The consequences of such concentrated benefits of land reforms would be low level of investment in public goods such as education. This will be developed in the next section.

4. Accumulation of human capital and land concentration

It was previously emphasized that in societies in which the land is concentrated public spending on education is desirable for everyone except the landowners given that the benefits they receive from education are lower than money they spend paying taxes, (Galor et al, 2004) ²⁴. The previous section described how disentaileed land ended up in

²⁴ In more egalitarian societies (a more homogenous population), there are greater incentives to invest in education and public goods. For example, Goldin and Katz (2003) argue that in the 19th century the United

few hands and concluded that despite the fact that legislation —September 9, 1861 Decree—sought to implement a more equal distribution of land, this goal was never achieved due to the influence that a small group of individuals had over the mechanisms of disentailed land acquisition which allowed them to appropriate most of it

Early 20th century Colombian literacy rate in the Latin and North American context

North America (United States and Canada) was characterized very early on by high rates of literacy; in 1870 more than 80% of the population (10 years and older) could read, (Mariscal and Engerman, 2000) ²⁵. In contrast, the Latin American case was not so positive: of the countries with the highest rates of literacy, none were comparable to North America. In 1900 Argentina and Uruguay reached literacy rates above 50%, followed by Chile and Cuba with 40%, and Costa Rica at 33%, (Mariscal and Engerman, 2000) ²⁶. In the least successful cases, that is Mexico, Brazil, Venezuela, Peru, Colombia, Bolivia, and Honduras, it was not until the 1920's that 30% of the population was literate, (Mariscal and Engerman, 2000). Nevertheless, literacy rates did steadily increase throughout the first half of the 20th century from 28% in 1900 to 48% in 1925, finally reaching 64% in 1950, (Newland, 1994). However, rates were never comparable to those of North America.

States was one of the most successful countries in terms of providing an egalitarian system of education. This system of education was founded on a set of virtues based on democratic principles: i). Public provision of service, ii) decentralization of the educational system, iii) public Funding—through the sale of public land, parental contributions and taxes—assuring that education be free iv). Secular education. v). Neutrality in relation to gender. vi). A universal educational system that provided access to all children.

²⁵ In the United States, in 1910 92.3% of the population was literate: three times the rate of the most literate countries in Latin America (Argentina, Chile, Costa Rica, and Cuba) and four times more than in Brazil and Mexico, (Mariscal and Engerman, 2000).

²⁶ In Latin America the rate of literacy at the beginning of the 19th century was less than 10%. Within 50 years that rate had increased 5 percentage points reaching 15%, finally reaching 27% in 1900. The most prosperous countries in Latin America had the following rates: i) Argentina in 1869 had a literacy rate of 23.8% and of 45.8% in 1895. ii) Chile in 1864 the rate was 13.3%, reaching 30.3% in 1885, (Newland, 1991).

The relative prosperity of Argentina and Chile—in terms of literacy and children enrolled in school—in Latin America was due to the influx of immigrants to urban centers (Newland, 1991; 1994)²⁷. The success of Costa Rica laid principally on the homogeneity of the population and on the egalitarian conditions that had existed since the colonial period, as it was a society that lacked indigenous labor and precious metals, (Mariscal and Engerman, 2000). Despite Latin America's poor growth, some countries did manage to reach higher levels of literacy and school enrollment than others²⁸.

What happened in Colombia? Helg (1987) and Ramírez and Téllez (2006) argue that at the beginning of the 20th century, the percentage of adults in Colombia who knew how to read in comparison to other Latin American countries was very low as seen above. Helg (1987) based on the 1912 Census, that the global rate of literacy in individuals 8 years and older was 17%. Clearly this figure shows that the country's literacy rate was low, even in comparison to other Latin American countries.

²⁷ According to Mariscal and Engerman (2000) in Argentina, despite the fact that the literacy rate had risen to 22.1% in 1869 and to 65% in 1914, it was clearly higher in urban areas. In 1895 the literacy rate in Buenos Aires was 71.8% while in the rest of the country it was only 42.8%. This variation of literacy rates between foreigners and nationals is corroborated by Newland (1991) who argues that in 1895 65% of resident foreigners in Argentina could read and write while among Argentinean citizens only 47%. In Chile 13.3% of citizens could read and write while 46.3% of foreign residents were literate.

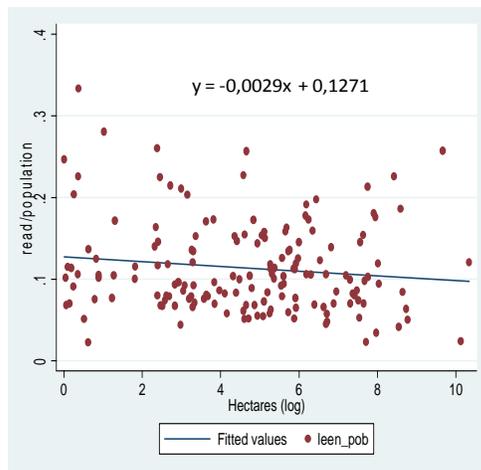
²⁸ In Colombia, Ramírez and Salazar (2007) show that the underdevelopment of the country in terms of education—and even in relation to other Latin American countries—was the result of the lack of incentives to improve the system including: i) an agrarian economic structure that did not depend on skilled labor. ii) a social structure in which only a small elite had access to education, iii) few incentives offered to teachers in the form of low, unstable wages, iv). presence of civil wars that made financing of education unstable, v) rivalry of Church-State and the governmental changes that impeded the organization of the system.

Accumulation of human capital and concentration of disentailed land

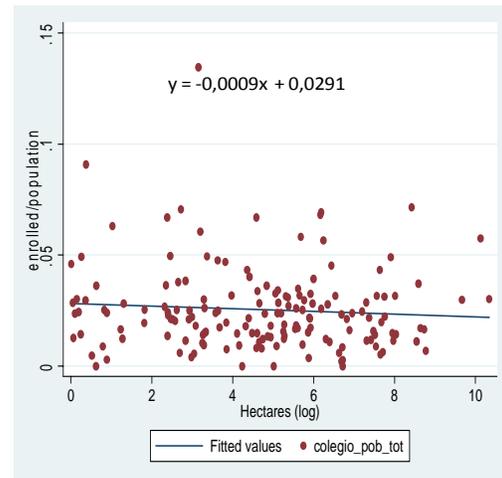
From the National Census of 1912 it was calculated that the percentage of men who knew how to read in each municipality in that year was 12.33%²⁹. Analyzing the statistics found in the Census at the departmental level and using current geographical boundaries as a reference, it is evident that in those departments in which a higher percentage of men could read there were not events of disentailed land auctions. These departments were San Andrés (26.12%), Putumayo (24.76%), Caldas (17.06%) and Quindío (17.02%)³⁰.

Graphic No. 2 Correlation between hectares of disentailed land and human capital indicators

(a) Read/Population



(b) Enrolled/Population



Source: AGN, Sección República, Fondo de Bienes Desamortizados (Rollo 1-30), Diario Oficial (1864-1884), Courvel (1940), Censo de 1912, and author's calculations

In the departments (States) in which the greatest number of purchases took place and that exhibited a high rate of inequality of disentailed land (Gini), 1912 literacy levels were

²⁹ The 1912 Census documents literacy exclusively among men. Not all of those who could read could also write, as the censuses generally registered these two variables separately, (Newland 1991; 1994, and the 1912 Census). The proportion of men who could write in Colombia in 1912 was 10.72%. According to Newland (1991, 1994) it was to be expected that this percentage was lower than the percentage of men who could read (12.33%) as generally people were taught how to read and then how to write. Enrolled male children as a percentage of population were 2.75%.

³⁰ This same result is obtained for the case of men who could write.-San Andrés (25.6%) Putumayo (21.9%), Caldas (17.1%) and Quindío (17%). For enrolled male children the results are almost identical. The three departments with the highest enrollment rates were: Putumayo (14.07%), San Andrés (8.21%) and Caldas (3.8%).

lower. Examples of this pattern were Cundinamarca (including Bogotá) with a Gini of 0.8 and a literacy rate of 10.72%, Boyacá with a Gini of 0.75 and a literacy rate of 8.07% and Santander with a Gini closer to 1 and a rate of literacy just above the national average³¹. Graph No. 2 presents the correlation between the logarithm of disentailed land and the indicators of human capital which corroborates the negative relationship that exists between land concentration and literacy rates and children enrolled in school as proportion of population.

It has been stressed both the high concentration of disentailed land—a Gini coefficient of 0.89 was found at the national level—and , the low percentage of men who could read, write and attended school at the national level (12.33%, 10.72% and 2.75% respectively). Finding empirically the effects that disentailed land had on the provision of education is the main purpose the paper. It is pinpointed that despite the fact that the Church was expropriated of its possessions, ownership of the land in the mid 19th century remained concentrated in hands of a small group of landowners who continued to utilize their political influences to their own benefit. To the extent in which social investment (education) was optimal for all segments of society except this one landowners contribution to public goods was low opposing direct taxes on property and wealth, (Galor et al, 2004; Sokoloff and Zolt, 2005).

³¹ In the case of men who knew how to write in 1912, the same pattern is found: Cundinamarca (9.9%) and Boyacá (7.3%). were both of them below the national average). This same result is found for the percentage of enrolled children in 1912: Cundinamarca (2.31%-0.43 percentage points below the national average) and Boyacá (1.60%-1.14 percentage points below the national average).

In this regard, Mariscal and Engerman (2000) have stated that initial inequalities precluded investment in public education. In Latin American societies, where there was a great deal of inequality, the provision of public education was scarce and the provision of human capital very limited. In the following section this negative relationship between land concentration and the accumulation of human capital will be proved empirically.

5. Empirical model and econometric results

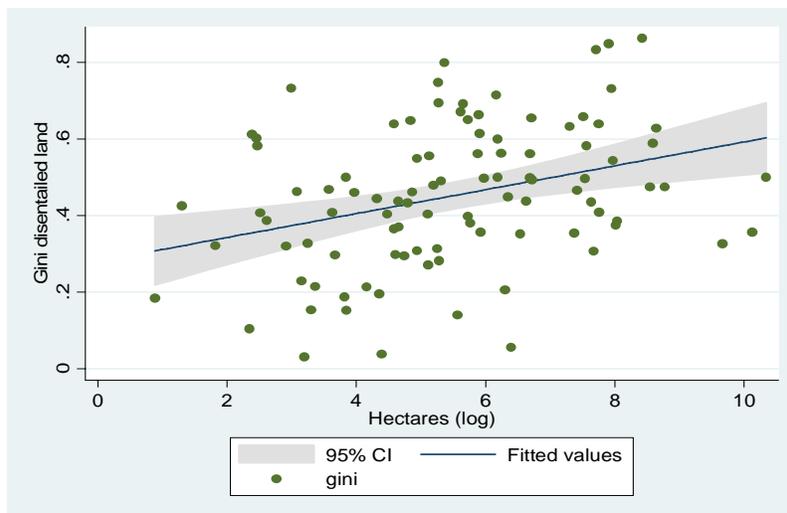
Empirical model

The empirical model attempts to show the negative relationship between the concentration of land—in this case disentailed land—and the accumulation of human capital observed through the proportion of literate males in relation to the total population in 1912, through the following econometric exercise:

$$A_i = \beta_0 + \beta_1 \text{Geography}_i + \beta_2 \text{Hectares}_i + \varepsilon_i$$

In which A_i represents the percentage of males in each municipalities (i) who could read in 1912. In order to corroborate the robustness of the results the same exercise was made using the enrollment of male in relation to the total population in 1912. Geography includes: erosion, precipitation and distance to the capital (Bogotá), the Pacific Coast (Cali) and the Caribbean Sea (Barranquilla). *Hectares* refers to the total number of disentailed hectares in municipality i during the period 1864-1884.

Graph No. 3
Correlation between hectares and indicator of inequality of disentailed land



Source: AGN, Sección República, Fondo de Bienes Desamortizados (Rollo 1 a 30), Diario Oficial (1864 – 1884), Courvel (1940), Censo de 1912 and authors' calculations.

It has been shown that disentailed land remained concentrated in the hands of a small group of individuals, so that the hectares variable—that is the quantity of disentailed hectares—may be a good indicator to determine the land concentration. Graph No. 3 points out that it is the case since the correlation between the logarithm of disentailed land at municipal level and the Gini coefficient is positive, showing that the greater the amount of disentailed hectares, the higher the index of disentailed land inequality.

Nevertheless, allocation of disentailed land may be endogenous to human capital despite this variable is observed years later after disentailment occurred. The reason is that 19th century human capital may have determined both the amount and concentration of disentailed land and the level of 20th century human capital. In other words, past low

level of human capital may be linked to higher purchases of disentaile land and current (1912) low levels of human capital.

In order to solve this possible source of bias the variable *year of the municipality foundation* was use as instrument for hectares of disentaile land. It is expected that there would be larger amount of disentaile land in those municipalities founded during the colonial period, and a lesser amount in those municipalities founded more recently (19th century). In this way, *year of the municipality foundation (foundingyear)* is correlated only with the independent variable (hectares) but uncorrelated with the dependent variables (literacy and school enrollment in 1912).

Thus, the first stage equation will be as follows:

$$Hectares_i = \alpha_0 + \alpha_1 Geography_i + \alpha_2 foundingyear_i + v_i$$

Thus, it is expected a negative relationship between those municipalities with a more recent year of foundation and the quantity of hectares that were disentaile.

Econometric Results³²

Table No. 3 shows the OLS (columns 1 and 2) and the instrumental variable estimations (columns 3 and 4) in which dependent variables included the males who could read and males enrolled in school in 1912 as a percentage of population. Panel B shows the first

³² As previously mentioned, not every man who could read could also write, so that the same econometric exercise was made taking the percentage of men who could write in 1912 as a dependent variable. Similar results (not reported) were found as to those of the population that could read. .

stage estimation, which indicates that the relationship between hectares of disentaileed land by municipality in the period 1864 – 1884 and the instrument (*year of the municipality foundation*) is negative and significant at 99%. This result confirms that the more recent the founding of the municipality, the lower the amount of land disentaileed.

Panel A of Table No. 3 shows the second stage results of the model which indicate that the greater the amount of disentaileed land in a municipality the lower the rates of literacy and school enrollment (column 3 and 4). Thus the relationship is negative and significant at 95% and 90% respectively. For instance, if the amount of land disentaileed increased 1% the proportion of literate males would be 0.018 lower. This same relationship is confirmed when using the case of male children who attended school, showing a 1% increase in the quantity of disentaileed land the rate of enrollment would be 0.004 lower. Evaluating at the mean, the disentaileed hectares made the literacy rate be 1.73 standard deviations less than the places where didn't exist disentaileed land. For the case of the enrollment rate is 1.03 standard deviations. This means that the concentration of the disentaileed lands had negative important effects in the human capital accumulation.

Table No. 3. Econometric results. Dependent variables: Males who read and attend school as proportion to the total population in 1912

Method	OLS		OLS INSTRUMENT.	
	Read (1)	School (2)	Read (3)	School (4)
			Panel A: Second stage	
Hectares disentailed	-0.001* [0.000]	0.000 [0.000]	-0.021** [0.009]	-0.004* [0.002]
			Panel B: First stage	
Founding year			-0.001*** [0.000]	-0.001*** [0.000]
p value sets				
p value for geographical variables sets	[0,000]	[0,002]	[0,061]	[0,005]
Number of observations	676	724	676	719

*Panel B: Reports the first stage of estimation using the logarithm of disentailed hectares from 1864 – 1884 as dependent variables.
Panel A: Reports the second stage using literate males and the children enrolled in school as proportion of population in 1912 as dependent variables..*

Standard error in parenthesis

**** $p < 0.01$ (significant 99%), ** $p < 0.05$ (significant 95%), * $p < 0.1$ (significant 90%)*

This exercise confirms the negative relationship between land concentration, in this case disentailed land, and the accumulation of human capital (literacy and school enrollment). Thus, results validated the hypothesis that the greater the concentration of economic power measured through landholdings, the lower the investment in public goods such education. Although the expropriation of Catholic Church assets were aimed to making more egalitarian the distribution of land property, the facto institutions (political and economical power of the elite) impeded the attainment of such goal and rather they just reproduced the existing inequality.

6. Conclusions.

In this paper two major conclusions were reached. First, it was quantitatively verified that the liberal government's attempt to achieve better land distribution through disentanglement failed due to the political influence that a small group of individuals had and continued to maintain on political institutions. Secondly, a negative relationship between land concentration and the accumulation of human capital was validated. In fact, amount of land disentailed brought about lower future rates of literacy and school enrollment. Despite the fact that during the second half of the 19th century the liberal government divested the Church of its land, precisely to attain a more equal distribution of land, the final upshot was that the allocation of disentailed land exhibited as well high levels of concentration. For instance, the Gini coefficient of this land was 0.89. This negative outcome evidenced the political manipulation of the disentanglement laws for benefits of landowners. In this way, the concentration of disentailed land reproduced both economic and the political power of landowners and curbed investment in human capital and hence long run economic development.

The political hegemony retained by this group of individuals led to lower accumulation of human capital. This group effectively used its political influence to avoid contributing to the investment in public goods, for example, through a refusal to pay direct taxes on their wealth and properties, (Sokoloff and Zolt, 2005). This negative relationship between land concentration and social indicators is corroborated through an econometric model that proved a negative and significant relationship between disentailed hectares of the 1870s—and thus concentration of land—and the rates of literacy and school enrollment in 1912.

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