

LESSONS LEARNT FROM THE PAST:

A comparative investigation of inequality and public education in the USA, Mexico, and Argentina during the colonial period.

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CONTENTS

Education and inequality – 3
The geographic stroke of luck – 17
Political voice and schooling – 30
Economic opportunities – 44
Cultural heritage – 57
Conclusions – 66
List of tables and figures - 71
Bibliography – 72
Appendix I – 76

CHAPTER 1 – EDUCATION AND INEQUALITY

Introduction

This thesis analyzes the development of educational systems in the Americas from 1600 until 1900. Nowadays education is seen as one of the key factors for the enhancement of economic growth, the reduction of poverty and for the achievement of social equality throughout the world. In order to enhance development and eradicate poverty all over the world, the so-called United Nations ‘Millennium Development Goals’ state that basic education is a human right and to achieve universal primary education by 2015 all children should “have access to complete, free and compulsory basic education of good quality”.¹

Important questions have been raised in the field of social and economic history in order to understand what caused the fact that certain countries have experienced economic prosperity and lower degrees of social inequality and others have lagged behind.² Various explanations for this divergence have been developed; such as variation in factor endowments, competition between states in colonial expansion, religious differences and varying patterns of human capital development as well.³ Studying the different explanations it appears that much emphasis has been placed on the economic benefits of the investment in human capital.⁴ As economic historian *Lindert* states in ‘Growing Public’ - his two-volume work on social development - primary schooling is of the utmost importance to economic growth. As a result hereof he claims that the question why parts of the world are to a lesser extent developed can be replaced by the question why in certain parts of the world children do not complete a form of primary education.⁵

¹ The Millennium Development Goals are part of the Millennium Goals constructed by the United Nations in 2000, for a complete outline of these goals, see: <http://www.un.org/millenniumgoals/>.

² Charles Tilly used the influential concept of ‘big structures, large processes and huge comparisons’ to come to grips with ‘social change’. Literature on the divergence of countries in economic perspective are amongst others: C. Tilly, *Big structures, large processes and huge comparisons* (Michigan 1983); K. Pomeranz, *The Great Divergence: China, Europe and the making of the modern world economy* (Princeton 2000); D.S. Landes, *The Wealth and Poverty of Nations* (London 2007); S. Haber ed., *How Latin America fell behind* (Stanford 1997).

³ Human Capital basically refers to the stock of knowledge and skill substantiated in the population of a specific economy which enables people to earn a living. Education is seen as an important aspect of human capital development.

⁴ Authors emphasizing the effects of human capital on economic development are for instance: B. van Leeuwen, *Human Capital and Economic Growth in India, Indonesia and Japan, A Quantitative Analysis, 1890-2000* (Utrecht 2007); D. Mitch, ‘Education and economic growth in historical perspective’, EH.net Encyclopedia, see: <http://eh.net/encyclopedia/article/mitch.education>; T.W. Schultz, ‘Capital formation by education’, *Journal of Political Economy*, vol. 68, iss. 6, pp. 571-538.

⁵ P.H. Lindert, *Growing Public: social spending and economic growth since 1800, Volume 2* (Cambridge 2004), p. 33: “Universal schooling is so important to economic growth that the question “Why isn’t the whole world developed?” has rightly tied to the question “Why don’t all children complete their primary education?”.

When researching the history of education, often the underlying premise is that the national education systems familiar to us nowadays emerged in the western hemisphere during the late eighteenth and nineteenth centuries. In the majority of research literature these national education systems are seen as an off-spring to the process of 'state-building', which was significantly based on political and ideological foundations.⁶ Additionally, this assumption holds that in other areas, such as the southern part of the Americas and Africa, the development of educational systems lagged behind or did not emerge at all. The major issue addressed in this thesis is the question whether this lagging behind of such countries was merely caused by ideological and political differences when comparing it to the 'successful' countries or whether there were other causes as well. In this respect one of the assumptions analyzed in this thesis is that when it comes to such a complex institution as public education, which forms part of the broader concept of human capital, socioeconomic factors have played key roles as well.

What consequently remains is the question of which exact factors contribute to or thwart human capital development in general and, more specifically educational development. Reversing the above mentioned causal connection - the effects human capital might have on economic prosperity and on stages of inequality - around in the other direction, the question can be examined whether economic prosperity and inequality themselves have had impact on human capital development. In literature little emphasis has been put on this reversed causal connection. In their work on the development of institutions in the New World *Engerman* and *Sokoloff* have stated that when ascribing the divergence of economic prosperity between countries to differences in institutions relevant to growth, one should likewise see the challenge of investigating where the initial differences in institutions, such as human capital, come from.⁷ In this regard, the concept of 'path development' is appropriate and might prove useful for the analysis of this evolution of institutions. According to *Thelen* this concept implies a combination of determinism and contingency throughout history.⁸ Institutions are determined as a result of a plethora of phenomena due to initial conditions and are subject to chance. However, once a certain way of establishment is followed, institutions will evolve according to this set pattern and other alternatives for development are naturally excluded.⁹ According to *Thelen* systematic historical analysis of various socioeconomic, political and

⁶ See for example: L.A. Cremin, *American Education vol. 1* (New York 1970); L.A. Cremin, *American Education vol.2* (New York 1970); A. Green, *Education and the state* (Princeton 1993).

⁷ K.L Sokoloff, S.L. Engerman, 'Institutions, Factor Endowments, and Paths of Development in the New World', *Journal of Economic Perspectives*, vol. 14, 2000, pp. 218.

⁸ Path Dependency is a broad term used within the social sciences to explain institutional development. It is likewise used in other sciences, such as psychology to explain patterns of behaviour. The main use within this thesis is derived from Kathleen Thelen.

⁹ In: J. Mahoney, D. Rueschemeyer, *Comparative Historical Analysis in the Social Sciences* (Cambridge 2003), pp. 218-219.

cultural factors can thus shed light on the development of institutions such as educational systems.

In accordance with this finding, this thesis connects to the idea that the concept of ‘path development’ may be effective to provide insight in the development of an institution such as education. In addition, this concept of path development supports the idea that ‘history matters’, because historical analysis can account for explaining institutional development.¹⁰ Moreover, this thesis aims at researching various socioeconomic, political and cultural factors to establish the factors important for the emergence and prevention of educational systems.

The main factors and the major hypotheses investigated in this thesis are extracted from a currently ongoing debate within social and economic history; on the subject of inequality. Various social sciences scholars state that the degree of inequality on political, cultural and economic levels within a society is important for its institutional development. As a result hereof, it is assumed that in areas where a relatively equal distribution of wealth and prosperity is present in an initial stage of development, institutions emerge that are beneficial to achieve economic and social progression. On the other hand, within areas where a high degree of social and economic inequality is present during an early phase of development, institutions develop that foster inequality. This, consequently, leads to lagging behind in economic growth and welfare.¹¹

When applying this hypothesis – on the effects of stages of inequality on economic and social development – to the question of educational development, the central hypothesis examined in this thesis is; *public education, as an institution, only emerges when a relatively low degree of inequality is present within the area of development, whereas public education does not emerge where the initial conditions are subject to a relatively high degree of inequality.*¹²

The units of analysis that will be examined to study this hypothesis are the USA,

¹⁰ The concept ‘history matters’ has often been used in a negative context concerning path dependence. Especially while stating that the mere contribution of the path dependence theory is stating that ‘history matters’. However, this thesis leans obviously on the fact that historical analysis is important in gaining insights into development.

¹¹ Various literature from the inequality debate used in this thesis is: D. Acemoglu, S. Johnson, J.A. Robinson, ‘Reversal of Fortune: geography and institutions in the making of the modern world income distribution’, *Quarterly Journal of Economy*, vol. 117; R.A. Easterlin, ‘Why isn’t the whole world developed?’, *Journal of Economic History*, vol. 41; W. Easterly, ‘Inequality does cause underdevelopment: insights from a new instrument.’, *Journal of development economy*, vol. 84; S. Haber ed., *How Latin-America Fell Behind* (Stanford 1997); D. Landes, *The Wealth and Poverty of Nations: Why some are so rich and some so poor* (New York 1998); T. Persson, G. Roland, G. Tabellini, ‘Is inequality harmful for growth?’, *American Economic Review*, vol. 84, iss. 3, pp. 600-621.

¹² Our hypothesis concerns ‘degrees of inequality’ since total equality can never be achieved within a society.

Mexico and Argentina during the colonial era.¹³ Historical analysis of these particular cases within the Americas is especially interesting for the study of the central hypothesis, since starting from its early European settlement onwards differences and divergences in degrees of wealth, in patterns of inequality and in human capital development were present within this area.

Before starting in depth research of these cases, the structure of this thesis will be laid out. First, the next paragraph will provide an explanation of the specific methodology used in this thesis. The following paragraph will study the beneficial aspects of the examined cases for the analysis of the central hypothesis. An explanation of the concept of public education and an analysis of the degree to which the cases of the Americas have achieved public education in 1900 will follow. Subsequently, the variables – or factors accounting for inequality and the prevention of public education – that are studied within this thesis will be discussed in the last paragraph of this introduction chapter. These variables, forming the core part of this thesis, will be separately examined within the chapters 2, 3, 4 and 5. Chapter 6 provides the conclusion of the research from these previous chapters including suggestions for further research.

To conclude this introductory paragraph, it is important to understand that a study of this subject and the above outlined hypothesis may be useful when readdressing the United Nations ‘Millennium Development Goals’. In this respect, investigating and comparing historical examples of educational development may be beneficial for the poorer countries of today’s world, since this insight may contribute to enhancing to the advancement of future economic prosperity, equality and – last, but not least - universal education. In other words: Lessons can be learned from the past.

The comparative approach

Investigating and comparing the historically large patterns of the development of education within the Americas calls for a methodology well equipped for so-called comparative history. Comparative researchers often derive the justification of their methodology from the profound mix of qualitative and quantitative research and from the synthesizing of numerical and textual data in order to produce an outcome of research that is also relevant for present day analysis and policy-making. In addition, comparative researchers often aim at the exploration of ‘diversity’ among nations, cultures and societies. They try to establish patterns of

¹³ This thesis generally uses both the post-independence and pre-independence terms for these countries. When discussing the colonial era the following terms will be used: North America as predecessor of the USA; New Spain as predecessor of Mexico and Argentina, or Buenos Aires as predecessor of what is nowadays Argentina. Note that frontiers of these countries have changed during these three centuries, see appendix I-III. The North American colonies as referred to in thesis were especially a very small part of the nowadays USA.

similarities and differences across a number of cases in order to explain which causes have contributed to certain outcomes.¹⁴

This thesis connects to this aim, and by using a specific methodology of comparative research it tries to understand which causes have contributed to the development of public education and which causes have thwarted this development. Following from that perspective this thesis is different from ‘traditional’ historical analysis, which often merely investigates one case in detail, or one detailed commonality within several cases. Its goal is not to tell the history of education within the Americas in its tiniest detail, but it wants to analyse and understand its emergence. It is, however, important to notice that this methodology differs from strict quantitative studies as well. Quantitative researchers within the field of the social sciences often use a large number of cases (large-n studies) to establish a significant measurable outcome. In this thesis, in turn, it is tried to apply a combination of the qualitative and quantitative approaches by using datasets and by exploring large patterns and structures as well as by becoming familiar with the historical particularities of the cases at hand. Therefore, the strict case-selection is an essential characteristic and foundation of the comparative approach. This thesis aims at researching the patterns of similarities and differences of the development of education within a modest number of cases, the USA, Mexico and Argentina.

As outlined above, the choice of investigating a modest number of cases implies the use of a specific methodology within the field of historical comparative research. By researching two or three different cases and exploring their differences, one could argue for the use of the so-called ‘Mill’s joint method of difference and agreement’, that states; “if two or more instances in which the phenomenon occurs have only one circumstance in common, while two or more instances in which it does not occur have nothing in common save the absence of that circumstance: the circumstance in which alone the two sets of instances differ, is the effect, or cause, or a necessary part of the cause, of the phenomenon.”¹⁵ Applying this method to the subject of this thesis could thus help establishing a necessary factor in the process of educational development. Moreover, Mill’s method of difference is especially useful when researching cases with different outcomes, such as the cases within the Americas. It could be used to examine which factor is essential in creating the successful outcome of the ‘positive’ case that was logically not present within the ‘negative’ case which experienced an unsuccessful outcome. This thesis thus takes in account Mill’s method in that it is also

¹⁴ For more information on the general goals of Comparative History see: J. Mahoney, D. Rueschemeyer, *Comparative Historical Analysis in the Social Sciences* (New York 2003); C. Ragin, *The comparative method* (Berkeley 1989); T. Skocpol, *Vision and method in historical sociology* (Cambridge 1984).

¹⁵ S. Ducheyne, ‘J.S. Mill’s Canons of Induction: From true causes to provisional ones’, *History and Philosophy of Logic*, vol. 29, nr. 4, 2008, pp. 361-376.

‘variation-finding’ and compares and contrasts cases of success and failure.¹⁶

Although ‘Mill’s joint method of difference and agreement’ is useful within this thesis, it will not be used as the main methodology, most importantly so because it does not allow for ‘conjunctural causation’.¹⁷ One of the most famous approaches within comparative research that does provide for ‘conjunctural causation’ is *Ragin’s* ‘Booelan method’.¹⁸ His methodological framework uses the beneficial elements of both qualitative and quantitative research as well and allows for causally connecting factors in order to analyze a certain outcome. It stylizes and simplifies factors, or so-called variables, in order to establish which of them are either *an sich* or combined crucial in explaining the outcome. Particularly due to this stylizing feature the method can also be applied to large-n investigations with multiple units of analysis. Within these investigations so-called ‘truth tables’ are designed to list which variables were present (1) or not (0) and to show all possible combinations of causes and outcomes.

Not all characteristics of this ‘Boolean method’ are necessary and useful in this study. As stated above, because of this thesis’ moderate number of cases, it will try to become relatively more familiar with the details of the cases as opposed to standard large-n comparative research. Since the ‘Boolean truth tables’ are especially important in large-n studies this part of the method will not be used genuinely. However, ‘bastardised truth tables’ that list the variables of this thesis within the moderate number of cases and code them into 1s and 0s are useful and will be applied. By stylizing the variables and by listing their presence, one can establish which factor or which combination of factors are important for the development of educational systems and which factors thwart this development.¹⁹

To conclude this section on the methodological basis of this thesis, it is important to notice that the ‘problems’ associated with the comparative method will be taken into account. Taking the middle-road in between complexity and simplicity might be viewed as a problem, however this approach is justified by the accomplishment of connecting factors and creating an analysis instead of a detailed narrative, without losing touch of the particularities of the cases at hand. Moreover, one could argue that since the concept of ‘path dependency’ is included in this thesis and since a specific ‘variation-finding methodology’ is used, some form of historical determinism might be present in this thesis. Obviously the development of public education, and of other institutions for that matter, should be seen as an incredibly complex set of phenomena which does not follow a linear path throughout history. This thesis aims at

¹⁶ Tilly uses several categories of research in the social sciences; one of them is ‘variation-finding’, see: C. Tilly, *Big structures, large processes and huge comparisons* (Michigan 1983).

¹⁷ With conjunctural causation is meant the “combinations of causal conditions that are jointly sufficient for producing a given outcome”, see: J.P. Aus, ‘Conjunctural causation in comparative case-oriented research’, *Quality and quantity*, vol. 43, iss. 2, pp. 173-183.

¹⁸ C. Ragin, *The comparative method* (Berkeley 1989).

¹⁹ *Ibid.* pp.85-124.

constructing some of the factors which were important in a specific number of cases within the Americas and which might be applied to actual policy-making and other cases throughout history, but it does not try to be exhaustive or presentist.

Units of analysis – The reversal of fortune

Following from the above described explanation of the methodology used within this study, it becomes clear that a well-considered case-selection is crucial in practicing historical comparative research. The units of analysis examined in this thesis are the United States (USA), Mexico and Argentina from around 1600 until the first decades of their independence at approximately 1850. Various scholars have stated that the countries within the American hemisphere are interesting units of analysis to compare, because even though they are expected to have had the same so-called ‘take-off period’ in the adoption of western institutions, they have experienced different paths of institutional development. Obviously the development of western institutions took off at the same moment due to the effects of colonization that was undertaken by several European hegemonies at roughly the same period of time.²⁰ Present-day Mexico and Argentina were colonized by Spain during the late fifteenth and sixteenth century and were thus initially subject to Spanish institutions. Present-day USA was colonized by France, the Netherlands and Britain during the early seventeenth century. The area where European settlement started is known as the so-called ‘thirteen colonies’. This thesis does however not focus on all ‘thirteen colonies’, but merely studies its northeastern region, which was colonized by the British hegemony.²¹

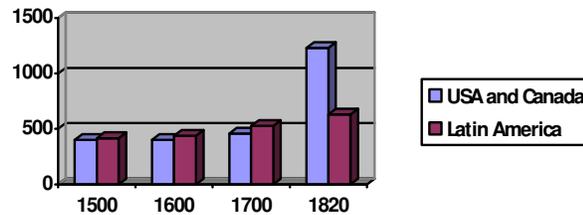
Following from the fact that the selected areas were colonized by various European motherlands, different patterns of development logically emerged early on. Shortly analyzing the development of wealth and the distribution of wealth within the New World countries is relevant when researching changing socioeconomic structures. This especially holds true when keeping the above mentioned divergence debate in mind. As several scholars, such as *Engerman* and *Sokoloff*, point out in their historical investigations concerning the New World, the basic premise of European settlers at the opening phase of colonization held that the North American mainland was of relatively small economic interest. In contrast, it was assumed that

²⁰ Studies comparing the New World countries are: D.Acemoglu, S. Johnson, J.A. Robinson, ‘Colonial origins of Comparative Development: An empirical investigation.’ *American Economic Review*, vol. 91, iss. 5; J.H. Coatsworth, ‘Obstacles to Economic Growth in 19th Century Mexico’, *American Historical Review*, vol. 83, iss. 1; S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1; S. Haber ed., *How Latin-America Fell Behind* (Stanford 1997); N.H. Jie, J. Junn, B. Stehlik, *Education and democratic citizenship in America* (Chicago 1996); J. Lockhart, S.B. Schwartz, *Early Latin America* (New York 1983).

²¹ For an exact indication on the geographical boundaries of the cases used, see appendix I.

there were clear economic opportunities in Latin America and the Caribbean.²² Several centuries later, however, these historical assumptions proved to be false as it had shown from 1800 onwards that the North American economies of the United States and Canada had become far more successful than those of other countries in the Americas. This phenomenon is also known as the ‘reversal of fortune’.²³

Figure 1 - GDP per Capita: USA, Canada and Latin America 1500 - 1820²⁴



Figures on GDP per capita underline this basic pattern of socioeconomic development and the occurrence of the ‘reversal of fortune’.²⁵ Even though nowadays constructed historical estimates are rough, there is consensus on the argument that the lead of the North American economies had not come about until a few centuries after European settlement. The figures in table 1 and figure 1 display that there were quite similar numbers of GDP per capita between the northern colonies and the Latin American colonies around 1700. From 1800 onwards the United States’ economy seemed to pull ahead of most of the Latin American countries, however as the figures show, several Caribbean economies remained similarly, or even more prosperous up till the mid-nineteenth century. Although no extreme divergence in wealth took place during colonial times, it appears that the structures necessary for economic growth were already more present in late colonial times in the area that was to become the USA. In contrast, structures and institutions necessary for economic growth had not developed to the same extent in the Latin American region.²⁶ It is therefore necessary to research what

²² K.L Sokoloff, S.L. Engerman, ‘Institutions, Factor Endowments, and Paths of Development in the New World’, *Journal of Economic Perspectives*, vol. 14, p. 217.

²³ D. Acemoglu, S. Johnson, J.A. Robinson, ‘Reversal of Fortune: geography and institutions in the making of the modern world income distribution’, *Quarterly Journal of Economy*, vol. 117.

²⁴ Figures derived from A. Maddison, *The World Economy: Historical Statistics* (Paris 2003), p. 114. There is consensus on the fact that Maddison provides figures closely resembling the actual historical situations, however it should be mentioned that all data on periods before approximately 1800 remains guess-work to a certain extent.

²⁵ Wealth can be accounted for by estimates of *Gross Domestic Product* (GDP), or the total value of all the goods and services produced within a country’s boundaries, usually within one year. *Per capita GDP* can be used as an indicator (not as a straightforward measurement) of living standards within certain economies.

²⁶ K.L Sokoloff, S.L. Engerman, ‘Institutions, Factor Endowments, and Paths of Development in the New World’, *Journal of Economic Perspectives*, vol. 14, 2000, p. 217.

differences in the development of institutions, such as educational systems, emerged during the colonial era.

A problem accompanying these figures is the fact that the American hemisphere is divided into two regions; North America and - more southern - Latin America (including Mexico). By making this division one is bound to overlook the differences in historical experience between all the regions within the American hemisphere. The southern cone of Latin America, and most particularly Argentina, has experienced a different pattern in socioeconomic development compared to other Latin American countries such as Mexico and Peru. It is supposed that off all the Latin American countries, Argentina has experienced growth most similar to the USA during colonial times and beyond.²⁷ Following from that premise, one of the reasons for the selection of Argentina as a unit of analysis within this thesis is the idea that its history can be seen as a case in between the histories of Mexico and the USA.

TABLE 1: The economies of the Americas, 1500-2001²⁸

	1500	1600	1700	1820	2001
			MEXICO		
Population	7 500	2 500	4 500	6 587	101 879
Per Capita GDP	425	454	568	759	7 089
GDP	3 188	1 134	2 558	5 000	722 198
			15 other Spanish America (ex. Caribbean)		
Population	8 500	5 100	5 800	7 691	212 919
Per Capita GDP	412	432	498	683	5 663
GDP	3 500	2 201	2 889	5 255	1 205 630
			30 Caribbean Countries		
Population	500	200	500	2920	38 650
Per Capita GDP	400	430	650	636	4 373
GDP	200	86	325	1857	169 032
			BRAZIL		
Population	1 000	800	1 250	4 507	177 753
Per Capita GDP	400	428	459	646	5 570
GDP	400	342	574	2 912	990 076
			US and CANADA		
Population	2 250	1 750	1 200	10 797	316 617
Per Capita GDP	400	400	459	1 231	27 384
GDP	900	700	574	13 286	8 670 389
			LATIN AMERICA		
Population	17 500	8 600	12 050	21 705	531 201
Per Capita GDP	416	438	527	692	5 811
GDP	7 288	3 763	6 346	15 024	3 086 936

²⁷ S. Haber ed., *How Latin-America Fell Behind* (Stanford 1997) pp. 1-34.

²⁸ Source: A. Maddison, *The World Economy: Historical Statistics*, Paris 2003 p. 114. Population in 000; per capita GDP in 1990 dollar; GDP in million 1990 dollar.

Conceptualizing public education - success and failure

Although the relation between GDP per capita and public education is not straightforward, it can be argued that the development of education during the colonial period stands in relation to the socioeconomic pattern of development as described above. This argument is derived from the fact that the development of (western) education also took off at approximately the same period of time in all three cases, that is to say during the early beginnings of European settlement.²⁹ Furthermore, the development of public educational systems, to which we are nowadays familiar, increased strongly in the USA from the late-colonial period onwards. In contrast, educational development in Latin America lagged behind. However, in order to study the development of education and in order to establish exactly if the units of analysis had succeeded or failed in the provision of public education at the end of the nineteenth century, it is important to firstly clarify the definition of public education used in this thesis.

Discussing the definition of public education, it is first of all crucial to become aware of the fact that in this thesis primary education is emphasized. Primary education refers to the schooling for children aged 5-14 years old and to the teaching directed towards the basic principles of learning, such as reading, writing and counting. Secondary and university education are obviously interesting to examine as well, however, they might unravel an entire different pattern of the relationship between inequality and education and should therefore be investigated in another study. The second important aspect of the definition of public education is the fact that the 'public' as opposed to 'private' element of education is stressed in this study. The definition of 'public' education can be interpreted in several ways, but it is often viewed as schooling with free and unrestricted access, that is to say education that is available for all. This thesis connects to this viewpoint and defines public education in addition as schooling in which is invested by communal expenses to benefit a large part of the population.³⁰ In *Lindert's* view public education is moreover the drive of total education, according to him; "No high-income OECD country has relied solely on private demand and supply in education, least of all in primary schooling."³¹

Following from this definition, it is important to establish objectively which cases within the Americas successfully developed public primary education and which countries failed to do so, or lagged behind. Several methods of measurement can be issued to demonstrate the degree of the achievement of public education within a society; however data

²⁹ It is actually argued that the Mexican areas had the largest stock of human capital available at the start of European settlement, due to the organization of education by the indigenous population. However, the focus within this research is on the western institution of education, which set foot as settlement started. See:

³⁰ This definition of public education is mainly derived from Lindert's definition. See: P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 1, the story* (Cambridge 2004), pp. 88-89.

³¹ *Ibid.*, p. 88.

on its development are scarce. Following hereof, it is firstly important to notice the time discrepancy of the explanatory mechanism in this study. One can speak of a time discrepancy because most data on educational development stems from the mid-nineteenth century and beyond. On the other hand, the variables examined within this thesis that may or may not account for inequality - and ultimately for public education development - are investigated through the histories of the colonial period. As already mentioned above, it is however particularly the objective of this research to study what differences in the development of institutions, such as educational systems, occurred during the colonial era. Following from that idea - and when remarking that the nineteenth century was important as well in the progress of education, however not the central period investigated in this thesis - the time lag in the explanatory mechanism is not considered a problem.

In regard to the measurement of success and failure of public education development two basic methods of measurement are utilized. First, enrollment rates for primary education demonstrate according to *Lindert* “what share of children is benefiting from society’s efforts to raise the bottom level of learning.”³² Moreover, the number of children enrolled in schools within a country demonstrates the society’s general achievement of the extent of public education. This is substantiated by the implication of the fact that when a higher percentage of children enjoys education, the educational system is more developed. On the other hand a low percentage of enrollment rates within a country suggests that public schooling within its society is less developed.

TABLE 2: Students enrolled in public primary schools, per 1000 children of ages 5-14, selected countries 1830-1930³³

	1830	1840	1850	1860	1870	1880	1890	1900	1910
Prussia	687	736	722	698	717	741	747	763	757
Netherlands			417	466	491	473	458	456	438
Spain				285	401	517	506	475	473
UK				521	559	549	646	720	729
Canada					827	800	822	892	886
USA*	546		681		779	800	857	884	896
Mexico						187	181	185	186
Argentina						143	266	324	409
India (British)								7	74

* Government-run schools only

Second, data on literacy rates are employed to give an idea of the level of education achieved in the cases at hand. Although the relation between public education and literacy is not completely straightforward – reading and writing can for instance be taught at home - literacy rates show a basic pattern of human capital development. Being able to read and write is one

³² P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century*, volume 1, the story (Cambridge 2004)

³³ *Ibid.*, pp. 92-93.

of the basic elements of the stock of skill and knowledge out of which human capital is made of. Moreover, following from historical analysis, it is assumed that reading and writing were more often taught at the primary schools at the end of the nineteenth century compared to other institutions within the three cases at hand. Deriving from these arguments, it is safe to say that a connection can be established between the degree of literacy within a society and the degree to which public primary education has progressed within a society.³⁴

TABLE 3: Literacy rates in the Americas 1860-1925³⁵

COUNTRY	YEAR	AGE	RATE %
Argentina	1869	6 and above	23.8
	1895	6 and above	45.6
	1900	10 and above	52.0
	1925	10 and above	73.0
Mexico	1900	10 and above	22.2
	1925	10 and above	36.0
USA	1860	10 and above	96.9*
	1870	10 and above	80.0
	1890	10 and above	86.7
	1910	10 and above	92.3

* These figures are for the white population of the North-eastern American regions. The other figures for the USA are for the total white population.

When combining the estimates of table 2 and table 3 it appears a clear pattern of development can be unraveled. It is obvious that the USA had attained high literacy and enrollment rates at the end of the nineteenth century. Although table 3 does not offer the exact estimates, it is often assumed that the USA were one of the countries with the highest literacy rates throughout the world, only equaled by Germany.³⁶ In terms of enrollment rates the figures in table 2 show that the USA overtook the global leadership of Germany from 1870 onwards. Moreover, it can be established that in 1830 – a few decades after the period of colonization had ended – a large number of students were already enrolled in public education. The enrollment rates in 1830 were roughly three times higher than the enrollment rates in Mexico and Argentina half a century later in 1880. Following hereof, it is established that the USA

³⁴ See for the underlining of this argument: S. De Castell, *Literacy, society and schooling: a reader* (Cambridge 1989), p.19.

³⁵ Source: S.L. Engerman, K.L. Sokoloff, 'Factor Endowments, Inequality and Paths of Development among New World Economies', *Economia*, vol. 3, iss. 1., p. 48.

³⁶ *Ibid.*, pp. 49-50.

had succeeded in achieving a high degree of public education development. The USA is thus, within this study observed as a successful case with a ‘positive outcome’.

In contrast to the case of the USA, it is demonstrated in the figures of table 2 and table 3 that the cases of Mexico and Argentina did not show to be abundant in the amount of public education available at the end of the nineteenth century. Although estimates before 1880 are lacking, it can be established that the enrollment rates in both countries were low a few decades after the break of independence. The number of enrollment of Argentinean students in public education and Argentinean literacy rates strongly increased from 1890 onwards and Argentina thereby overtook the amount of public education in Mexico, however this rise can not be connected to earlier colonial development. Furthermore, when relying on global comparisons Argentina can not – even after its strong increase in literacy and enrollment rates at the end of the nineteenth century - be seen as a country succeeding in the provision of public education. In global perspective and in the perspective of the Americas, Mexico and Argentina can both be seen as unsuccessful cases with a ‘negative outcome’ because of their failure to supply public education.

Accounting for public education – characteristics of inequality

In this paragraph a summary of several theories on inequality will be offered in order to outline the main variables used in this thesis to account for public education development. These variables have been derived from theories, hypotheses and debates concerned with geographical, political, economic and cultural characteristics of inequality.

First, a largely discussed element of the inequality debate is from the hands of geographically oriented authors such as *Sokoloff* and *Engerman*; *Frankema*; *Landes* and *Easterly*.³⁷ The first two scholars suggest that the economic divergence between countries emerges due to differences in so-called factor endowments, which are the amount of land, labour and capital available within an economy.³⁸ They highlight the view that the differences between countries in the distribution of human capital can also be explained by initial differences in factor endowments due to geographical conditions. Considering education they state that schooling institutions are interesting to investigate in the light of the broader

³⁷ Literature concerning this topic is: D. Acemoglu, S. Johnson, J.A. Robinson, ‘Reversal of Fortune: geography and institutions in the making of the modern world income distribution’, *Quarterly Journal of Economics*, vol. 117; W. Easterly, ‘Inequality does cause underdevelopment: insights from a new instrument.’, *Journal of development economy*, vol. 84; S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1 (2002); E. Frankema, *The Colonial Origins of Inequality: Exploring the Causes and Consequences of Land Distribution* (Groningen 2006); O. Galor et al., *Land inequality and the emergence of human capital promoting institutions* (working paper 2006); D. Landes, *The Wealth and Poverty of Nations: Why some are so rich and some so poor* (New York 1998).

³⁸ Factor endowments are the amount of land, labour and capital available within a society to use within the economy.

inequality subject, for they have been empirically and theoretically related to socioeconomic changes.³⁹ The sub-hypothesis derived from their argument that will be constructed in this study as the first factor **(I)** – ‘geographical conditions’ - holds that within the early years of European settlement in the Americas, different factor endowments led to differences in the distribution of wealth and political power, which in turn led to differential paths of institutional development and differences in the degree of inequality. Two main variables will be investigated to examine this variable, notably **(a)** land inequality and **(b)** population density.

Other authors, such as *Acemoglu, Johnson and Robinson*; and *Weingast, Summerhill and North*, have placed more emphasis on the effects of political institutions on aspects of economic development.⁴⁰ The second factor **(II)** – ‘political structures’ - holds that within the societies where extreme inequality was present, elites had the possibility to establish institutions that insured them large shares of political power. In addition the hypothesis holds that a more equal distribution of political power is more conducive to developing education for all. Two main variables will be examined, first, **(c)** suffrage laws will be taken into account and secondly **(d)** the democratic structure of the political organizations will be taken into account.

Additionally, various authors deal with the importance of historical market analysis and authors like *Galor and Zeira*; *Marichal*; and *Haber* have stated that imperfect capital markets impose large barriers on human capital formation.⁴¹ Thus in the third factor **(III)** – ‘economic structures’ - another form of institutions will be at stake, notably economic institutions. Our hypothesis suggests that in the areas where the population had more access to trade, markets and other economic institutions, a lower degree of inequality was present and educational systems arose earlier. Two main variables of the inequality of economic opportunities will be issued within the fourth chapter of this thesis, namely **(e)** the diversity of the commercial system and **(f)** the openness of trade.

As already stressed in the introduction paragraph most historical literature concerning educational development deals with its cultural foundations. Theories include more celebratory work on the development of education within the USA by authors such as *Cremin*. However, literature includes different perspectives on the role of the adoption of

³⁹ K.L. Sokoloff, S.L. Engerman, ‘Institutions, Factor Endowments, and Paths of Development in the New World’, *Journal of Economic Perspectives*, vol. 14, 2000, p. 218.

⁴⁰ D.Acemoglu, S. Johnson, J.A. Robinson, ‘Colonial origins of Comparative Development: An empirical investigation’, *American Economic Review*, vol. 91, iss. 5; S.L. Engerman, E. Mariscal, K.L. Sokoloff, *Schooling, suffrage and the Persistence of Inequality in the Americas, 1800-1945* (unpublished manuscript UCLA 1998); D.C. North, W. Summerhill, B. Weingast, *Order, Disorder and Economic Change* (unpublished manuscript); N.H. Jie, J. Junn, B. Stehlik, *Education and democratic citizenship in America* (Chicago 1996).

⁴¹ O. Galor et al., *Land inequality and the emergence of human capital promoting institutions* (working paper 2006); S. Haber ed., *How Latin-America Fell Behind* (Stanford 1997).

Spanish and British institutions in the Americas as well.⁴² This thesis' viewpoint when analyzing the fourth variable (IV) – 'cultural influences' is that the cultural heritage of the colonial motherlands determined the degree of inequality within a society and influenced institutions concerning educational development. This will be analyzed via one basic element of cultural colonial heritage, notably the (g) degree of religious influence on public education. This is especially interesting when having in mind the classic *Weber* theory that difference of Protestantism versus Catholicism is essential in creating a capitalist society. According to *Weber* the so-called *Protestant work ethic* suited the concept of capitalism more as opposed to Catholicism.

⁴² L.A. Cremin, *American Education vol. 1* (New York 1970); L.A. Cremin, *American Education vol.2* (New York 1970); J. Bowen, *A History of Western Education* (London 1981); J. Lynch, *Spain under the Hapsburgs: vol. 2 Spain and America 1598-1700* (London 1981).

CHAPTER 2 – THE GEOGRAPHIC STROKE OF LUCK

“What Columbus found was a new world. Even on his deathbed he did not believe that (...). Nor did he know that beyond the islands lay two large landmasses, the continents that came to be known as North and South America.”⁴³

Factor Endowments

Whether geography matters is one of the big questions raised when studying patterns of economical and institutional development within countries. *Gallup, Sachs and Mellinger* have for instance explored the effects of geography on per capita income levels, growth rates and the spatial distribution of population and have emphasised that geography certainly matters.⁴⁴ Location and climate seem to play a key role in economic growth and variation across countries. One of the most famous observations connecting geography with economic prosperity is for instance the statement by *Galbraith*: “If one marks off a belt a couple of thousand miles in width encircling the earth at the equator one finds within it *no* developed countries... Everywhere the standard of living is low and the span of human life is short.”⁴⁵

Directly connecting geography with the establishment of public education might at first sight seem a few bridges too far; however there is a variety of scholars agreeing that geographical factors have had impact on inequality, institutional development and ultimately on human capital promoting institutions.⁴⁶ Geography can, in that respect, be seen as an essential feature of path development. In the cases of colonisation factors such as adaptability and fertility of the soil have determined both where the colonist would settle and by what method he would support himself.⁴⁷

Since geography is a broad concept, the more narrow term of factor endowments is used within this chapter. Factor endowments are elements such as land, labour and capital available within a well-delineated territory to be exploited within the economy.⁴⁸ This chapter focuses mainly on the initial conditions and development of land and labour in the cases of the Americas and on their eventual impact on educational development. Land and labour are

⁴³ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007), p. 70.

⁴⁴ J.L. Gallup, J.D. Sachs, A.D. Mellinger, ‘Geography and Economic Development’, *International Regional Science Review*, vol. 22, iss. 2.

⁴⁵ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007), p. 5.

⁴⁶ S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1; O.Galor, O. Moav, D. Vollrath, ‘Inequality in Land Ownership, the Emergence of Human Capital Promoting Institutions and the Great Divergence’ *Working Paper*: <http://ssrn.com/abstract=670883> (2008).

⁴⁷ K. Thelen, ‘How institutions evolve: insights from comparative historical analysis’, in: J. Mahoney, D. Rueschemeyer, *Comparative Historical Analysis in the Social Sciences* (Cambridge 2003), p.208-241; H. Underwood Faulkner, *American Economic History* (New York 1960), p. 12.

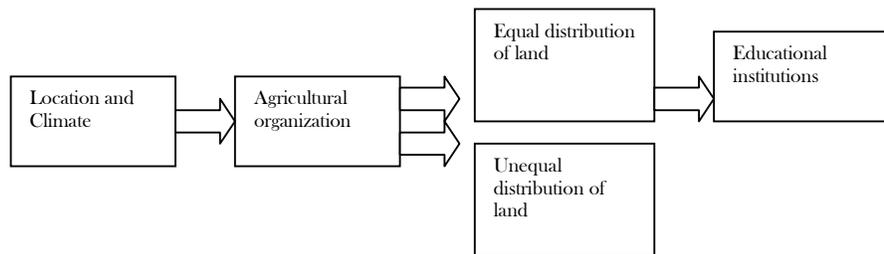
⁴⁸ G. Bannock, R.E. Baxter, D. Evans, *The Penguin dictionary of economics* (London 2003), p.126.

evidently interesting since it were the two main resources settlers came across in the New World societies. To come to grips with the development of labour, the initial condition of so-called population density will be investigated within this chapter.

Land inequality

Land as an economic asset has been most notably tied to the inequality debate. This seems logical when noticing that land was the most valuable asset in countries before industrialization.⁴⁹ The line of reasoning of theories concerning this relation within the New World area holds that the specific form and nature of the land at hand was essential for the type of agricultural production and organization initially established.⁵⁰ This type of organization could, furthermore, in response to the objectives of the colonial motherland, lead to a relatively unequal distribution of land. Since land is a valuable asset, land policy is important for the wealth distribution and degree of socioeconomic inequality within a society.⁵¹ Following from this, the hypothesis holds that in countries where there was initially a land policy based on the unequal distribution of land, the landed elite created an institutional framework that fostered inequality. In contrast, the efforts of the elite to institutionalize inequality were relatively unsuccessful within countries with a more equal distribution of land.⁵²

FIGURE 2 – Structure of land inequality argument



Connecting land inequality to public education, Galor, Moav and Vollrath have devised an econometric model which demonstrates that the degree of concentration of land holding is related to expenditure on education across countries and regions. They have demonstrated

⁴⁹ “Land is the most important production factor and source of wealth in the pre-industrial economy.” in: E. Frankema, *The Colonial Origins of Inequality: Exploring the Causes and Consequences of Land Distribution* (Groningen 2006), p. 6.

⁵⁰ “The geographic location of a country may indirectly affect the distribution of land.” in: W. Easterly, ‘Inequality does cause underdevelopment: insights from a new instrument’, *Journal of development economy*, vol. 84 (2007), p. 756.

⁵¹ E. Frankema, *The Colonial Origins of Inequality: Exploring the Causes and Consequences of Land Distribution* (Groningen 2006), p. 6.

⁵² Ibid. pp. 10-11; S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1, pp. 71-75.

with that model that the level of expenditure on education across countries that maximizes aggregate output is considered optimal by all individuals within society except for landholders with a large proportion of land.⁵³

Frankema has moreover substantiated this same connection in creating a simple dual framework holding that consequences of land inequality may be divided into obstructing social development and enhancing social development. By using data on land inequality across 111 countries he has demonstrated that creating an elite via land inequality is likely to contribute to suppressing democratic accountability and social development, thus also thwarting public educational development. Whereas a more equal distribution of land leads to an atmosphere in which human capital promoting institutions can develop.⁵⁴ Since public education expenditures require public revenues whereby a redistribution of income from the landowning elite to landless citizens is necessary, inequality often leads to underinvestment and an unequal distribution of human capital. Furthermore, it is suggested by *Galor et al.* that in land abundant countries, landowning elites have a special interest in steady supply of cheap unskilled labour and thus oppose the expansion of public education.⁵⁵

Population density and labour

The second variable tied to the element of factor endowments that seems to have been important in accounting for inequality is population density.⁵⁶ Various authors such as *Acemoglu, Robinson* and *Johnson* have succeeded in finding proof for the fact that differences in the amount of native population, in relation to the number of colonists, between countries

⁵³ O.Galor, O. Moav, D. Vollrath, 'Inequality in Land Ownership, the Emergence of Human Capital Promoting Institutions and the Great Divergence' *Working Paper*: <http://ssrn.com/abstract=670883> (2008), p. 9. They have examined this relation empirically using variations regarding public spending on education and landownership across states and over time during the US High School Movement.

⁵⁴ "Land distribution data are scarce. The Frankema figures are compiled according to decile distributions of the total number of land holdings (farms), and the total amount of agricultural land, excluding communal pastures and forests. The selected sample includes 111 country observations for a year close to independence: for non-colonised countries and most new-world countries it is the earliest observation available." In: E. Frankema, *The Colonial Origins of Inequality: Exploring the Causes and Consequences of Land Distribution* (Groningen 2006), p. 7. He has also empirically established that there is a negative effect of land inequality on public education expenditures in a cross-state US analysis, p. 16.

⁵⁵ S.L. Engerman, E. Mariscal, K.L. Sokoloff, *Schooling, suffrage and the Persistence of Inequality in the Americas, 1800-1945* (unpublished manuscript UCLA 1998); O.Galor, O. Moav, D. Vollrath, 'Inequality in Land Ownership, the Emergence of Human Capital Promoting Institutions and the Great Divergence' *Working Paper*: <http://ssrn.com/abstract=670883> (2008), p. 9.

⁵⁶ The immigration policies are also taken into account. Those executed by the motherlands of the colonial areas within the Americas were significantly different within the Spanish dominated countries as opposed to the British counterpart within the Americas. Although, this aspect of the variable is in itself a political artifact, it seems more appropriate to investigate it within this chapter in that it naturally binds with the question on labour organization as an important feature of the factor endowments at hand.

in the American hemisphere, have led to differences in the degree of inequality and institutional development.⁵⁷

Population density and composition provided within the New World hemisphere for specific amounts and types of labour. The type of labour contributed to the design of political and economic institutions during the colonial era, and those were ultimately important for the degree of inequality. The hypothesis here investigated states that a more homogeneous population led to a more equal distribution of labour, whereas a more heterogeneous composition of the population led to a vast degree of labour inequality.⁵⁸

Establishing the relation between population composition and public education, *Engerman* and *Sokoloff* have demonstrated via multivariate regression analysis that a high degree of inequality, or population heterogeneity depressed investment in primary education. Two explanatory mechanisms are used to underline this assumption. First, in the regions where parents pay fees for their children, greater inequality reduces the amount of the population enrolled in public education because a large part of the population is unable to pay the fees. Second, the mechanism demonstrates that inequality aggravated the so-called collective action problems tied to public education funding.⁵⁹ This is either due to the fact that the distribution of benefits across the population was different than the spread of taxes or because it was harder to reach consensus on public education investment in societies with a more heterogeneous population.⁶⁰ According to *Engerman* and *Sokoloff*: “Where the wealthy enjoyed disproportionate political power, they were able to procure schooling services for their own children and to resist being taxed to underwrite or subsidize services to others.”⁶¹

Land distribution and population density in the North American colonies

The so-called ‘Eastern Lowlands’ in which the first English colonies originated, consisted of quite fertile soil appropriate for the cultivation of ordinary garden vegetables, wheat and maize.⁶² It thus provided the very first settlers in the seventeenth century with the fortunate use of grain as their chief supply of nourishment. Moreover, the climate of the eastern coastal plain stimulated early agricultural organization to a large extent. For instance estimates by

⁵⁷ D.Acemoglu, S. Johnson, J.A. Robinson, ‘Colonial origins of Comparative Development: An empirical investigation.’, *American Economic Review*, vol. 91, iss. 5; D. Acemoglu, S. Johnson, J.A. Robinson, ‘Reversal of Fortune: geography and institutions in the making of the modern world income distribution’, *Quarterly Journal of Economy*, vol. 117.

⁵⁸ *Ibid.*; W. Easterly, ‘Inequality does cause underdevelopment: insights from a new instrument.’, *Journal of development economy*, vol. 84.

⁵⁹ On the collective action problem: P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 1, the story* (Cambridge 2004), pp.102-103.

⁶⁰ S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1, pp. 75-79.

⁶¹ *Ibid.* p. 78.

⁶² Maize in American-English is also ‘corn’; for purposes of clarity we use the term ‘maize’ to refer to ‘corn’. It is essentially the same.

scholars such as *Ellsworth Huntington* hold that approximately 30 to 50 inches of rainfall is ideal for soil moisture and the growth of wheat and he argues that this average was perfectly achieved on the eastern plain.⁶³ Although the English motherland was concerned with the obtainment gold and silver, the early settlers did not solely focus on the 'quick riches', but organized themselves to exploit the land.⁶⁴ An essential characteristic of grain such as wheat and maize is that it can be cultivated on small farms and thus does not require large estates and landholdings.⁶⁵

Following from these above outlined characteristics, the development of land distribution in the North American colonies can be examined. First, it is important to note that the feudal European system which was initially introduced within the colonies failed instantly. Attempts at co-operative agriculture did not succeed, but in turn, the parceling out of land became the main method of land distribution in the first centuries of settlement.⁶⁶ Land policy was thus provided under a group plan. A select group of prospective settlers would obtain from the General Court in Britain a grant of land on which the village could be laid out. The land belonging to the village was to be distributed, and virtually each settler received shares of different types of land.⁶⁷ The colonial farm continued during the seventeenth and eighteenth centuries to be a small affair and with abundant land present, the great majority of adult men were able to operate as independent proprietors. Thus, a relatively equal distribution of land was provided for through this land policy. Moreover, this method of agricultural organization was essential in political organization and institutional development as well. Since much of the land was held in common, but cultivated separately around the village, there was the necessity of cooperation amongst the farmers. The town meeting was the center where plans were made to account for this cooperation and grew out to be the center of political organization.⁶⁸

Concerning the aspect of labour, as an element of the factor endowments researched in this chapter, it firstly suffices to state that the North American mainland was not endowed with a substantial population of natives able to provide for labour. This can be observed from the

⁶³ Ellsworth Huntington et al. 'Principles of human geography', *Social Forces*, vol. 13, iss. 1 (1935).

⁶⁴ S.L. Engerman, K.L. Sokoloff, 'Factor Endowments, Inequality and Paths of Development among New World Economies', *Economia*, vol. 3, iss. 1, pp. 44-45.

⁶⁵ Easterly: "Before the introduction of modern agricultural technologies (motorized) food crops such as wheat and maize could be efficiently produced on plots of modest size. In New England specific types of wheat such as rye and buckwheat did well. Wheat, introduced from England, was not immediately successful." In: W. Easterly, 'Inequality does cause underdevelopment: insights from a new instrument.', *Journal of development economy*, vol. 84.

⁶⁶ *Ibid.*, p. 48.

⁶⁷ H. Underwood Faulkner, *American Economic History* (New York 1960) p. 55.

⁶⁸ *Ibid.*, p. 56.

estimates in table 4, when comparing the North American figures to other New World regions.

TABLE 4: Estimate indigenous population of America at the time of European contact⁶⁹

	Estimated Population	Percentage of total population
North America	4,400,000	7.7
Mexico	21,400,000	37.3
Central America	5,650,000	9.9
Caribbean	5,850,000	10.2
Andes	11,500,000	20.1
Lowland South America (incl. Argentina)	8,500,000	14.8
Total	57,300,300	100.0

Following from that initial condition, the development of labour structures was based on the influx of labourers of European descent. In contrast to the Spanish crown the English motherland stimulated emigration to the New World colonies and it encouraged the settlement of entire families, thus interracial marriage virtually did not occur. This progressive English migration policy is important since it provided the North American population from its early colonial beginnings onwards with a relatively high level of human capital compared to countries with less progressive policies, because European settlers were often better educated than the indigenous population. Concerning the small amount of native population present it is assumed that they were unwilling to provide labour for the new settlers and that they were virtually all pushed out of the frontier area. Thus a demographic take-over by the European descendents could be established on the eastern North American plain, creating during the colonial era an absolute ‘apartheid’.⁷⁰

As a high-skilled homogeneous society was initially established at the frontiers of the North American land, a relatively equal distribution of labour was provided for, from the colonial period onwards. Due to the demographic dominance and the similar composition of the population compared to the Old World economies, European-like institutions were established, which also provided for a framework fostering rather equal distributions of wealth and political power. In addition, since labour was divided and every family was in charge of its own small-scale farm it is argued that incentives for human capital promotion were apparent in order to make sure that the labour remained as high-skilled as it was as initially transferred from Europe.⁷¹

⁶⁹ Source: J. Lockhart, S.B. Schwartz, *Early Latin America* (Cambridge 1983), p. 36.

⁷⁰ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007), pp. 99-112; L.A. Cremin, *American Education vol. 1 (New York 1970)*, p.193.

⁷¹ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007), pp. 99-112.

Land distribution and population density in New Spain

*“The history of Spanish conquest is in part a story of ill-starred voyages (...). But also of lucky strikes like Mexico and Peru.”*⁷²

Spanish policies at the early start of colonization focused their attention on New World colonies whose factor endowments were characterized by rich mineral resources of silver and gold. The Mexican land was abundant with gold and silver and thus satisfied the Spanish objectives. In addition, the landscape of New Spain was characterized by a variety of climates and altitudes. Two large mountain chains provided for the *tierra fría* (cold land). The central plateau or the so-called ‘valley of Mexico’ contained a more temperate climate, or *tierra templada*, whereas the coastal areas were more subject to the *tierra caliente* (hot land).

Building upon pre-conquest structures, whereby tributes were obtained from the local population by the elite, large-scale estates and mines were set up. Following from this, the approach of land tenure was to distribute large grants of land to the elite, which often already included claims to obtain income from the native population.⁷³ The large-scale estates developed in New Spain during the seventeenth century into so-called *haciendas*⁷⁴, or as the still useable definition by *Wolf* and *Mintz* states: “an agricultural estate, operated by a dominant landowner and a dependent labour force, organized to supply small-scale market by means of scarce capital, in which the factors of production are employed not only for capital accumulation but also to support the status aspirations of the owner.”⁷⁵ Moreover, the rights to tribute from natives gave the landholding elite the means and motives to operate on large scale.⁷⁶

Land accumulation was furthermore enhanced by purchasing it from the indigenous population or by outright confiscation. It should also be acknowledged that the strong pact between Rome and the Spanish crown provided for even more land inequality due to the omnipresence of the Catholic Church. Special inheritance laws were devised to contribute to the enlargement of the catholic lands. This indeed has had a substantial impact on land inequality within New Spain.⁷⁷ The distribution of land amongst the population was thus very unequal from colonial origins onwards and provided for a privileged few to maintain a vast

⁷² *Ibid.*, p.101.

⁷³ S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1, pp. 71-75; K. Duncan, I. Rutledge, *Land and labour in Latin America* (Cambridge 1977), p.45.

⁷⁴ *Hacienda* is the most general term and is often varied with *Latifundio*, *Fazenda* (in Brazil) and *Estancia* (in Argentina).

⁷⁵ E.R. Wolf, S. Mintz, ‘Haciendas and plantations in Middle America and the Antilles’, *Social and Economic Studies*, vol. 4, iss. 3 (1957), p. 380.

⁷⁶ S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1, p. 45.

⁷⁷ D. Lal, *Unintended consequences. The impact of factor endowments, culture and politics on long-run economic performance* (Cambridge 1998).

amount of economic and political power during the seventeenth and eighteenth centuries.

Although agricultural elements such as wheat and cattle were introduced by the Spaniards into the Mexican landscapes, the soil in the valley of Mexico was most useful for cultivating maize. Maize remained during the colonial era most important agricultural product of the economy.⁷⁸ However, it is assumed that the Mexican agricultural potential was initially not exploited effectively.⁷⁹ The Spanish ‘quick way to get rich’ by exporting minerals, obstructed the development of non-wasting agricultural assets such as maize and wheat. Since the hacienda system was heavily dependent on the Spanish crown which aimed at gaining the mineral resources, not much emphasis was placed upon the development of agricultural production of New Spain. The typical haciendas were planned as self-sufficient units. Since they provided for almost all the requirements of the owners, and because instead of economic value land prestige attached to landownership was emphasized, nine-tenths of the lands often remained uncultivated.⁸⁰

The elements of valuable mineral resources and unequal land distribution were combined with an abundance of labour with a low amount of human capital during the colonial era.⁸¹ This initial condition was a contribution to the perpetuation of unequal distribution of wealth and political power as well. As demonstrated by the estimates in table 4, Mexico consisted of the largest amount of native population within the Americas by far. The arrival of the Spaniards did cause sudden changes in the composition of this population, most notably due to the effects of epidemic diseases such as plague and smallpox brought in from Europe.⁸² However, within New Spain there were a relatively substantial number of natives surviving contact with the European colonizers when compared to other regions within the American hemisphere and the Spaniards never became numerically superior to the native population.⁸³

In addition, the restrictive immigration policies of the Spanish crown also contributed to the persistence and stability of elites and to inequality in general. The elite were carefully picked out by the crown and several requirements were issued to prevent settlers from obtaining land and colonists had to obtain permission to go to the New World. The number of emigrants from Spain to the Indies is unknown, however estimates of the amount of ships

⁷⁸ M.C. Meyer, W.H. Beezley, *The Oxford History of Mexico*, (Oxford 2000), p. 215.

⁷⁹ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007) pp. 310-311.

⁸⁰ H.B. Parkes, *A history of Mexico* (London 1960), p. 85.

⁸¹ S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1, pp. 44-46.

⁸² *Ibid.* p. 101.

⁸³ M.C. Meyer, W.H. Beezley, *The Oxford History of Mexico*, (Oxford 2000), p. 215; A. Crosby, *Ecological Imperialism: the biological expansion of Europe 900-1900* (New York 1986).

sailing to the Indies illustrates that emigration declined steadily from the mid-seventeenth century until the mid eighteenth century.⁸⁴

Following from this it is clear that a small group of European descent and racially distinct from the rest of the population formed the elite in New Spain and the migration policy aided in preserving their status.⁸⁵ Furthermore, the emigration of women was also not encouraged; the ratio of male to female immigrants was ten to one in New Spain. Thus the composition of the Spanish population was based on young men who chose to intermarry with the native population. A new ethnic group of so-called *mestizos* emerged which was more numerous than the Europeans, but lower in status.⁸⁶ The native Indian population still provided for the labour on the lands and in the mines.

Land distribution and population density in Argentina

Taking geographical qualities as a measure for economic prosperity, it is often said that the Latin American country with the best chances was Argentina. The natural gifts of Argentina were spread over the region: different types of climates, including a temperate core; open grasslands which provided for holding livestock such as cattle and sheep; soil for maize and wheat; and some areas to grow crops such as sugar and cotton. Especially the open grasslands, or *pampas*, are seen to be 'blessed' because of the combination of fertile soil and direct access to the ocean harbours. Furthermore, there was a small amount of silver available, but few other resources important for industrial development later on.⁸⁷ Although the potential to grow crops was present, Argentina initially developed to be a country of 'cattle and sheep'.

Similar to New Spain, the *haciendas* provided for the backbone of the method of land distribution. The Spanish settlers gained or confiscated large amounts of land with agricultural potential and manned these with native labourers. By selling these gigantic proportions of lands in advance the Spanish crown and the Spanish elite gained money. However, a so-called neglect of agriculture prevailed on these lands and this was moreover connected to the land and immigration policies within the Argentinean hemisphere. Since labour was often lacking, enforcing conditions of settlement and cultivation of these lands failed and landowners often left the land idle or turned it over to cattle and sheep. This so-called 'open-range ranching' did not provide for much agricultural organization.⁸⁸ Moreover, the area of the nowadays Argentine state was integrated during the colonial period into the so-called *La Plata* area. The Spanish translation of this name already suggests that silver

⁸⁴ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007), pp. 310-311.

⁸⁵ *Ibid.*, p.311.

⁸⁶ M.C. Meyer, W.H. Beezley, *The Oxford History of Mexico*, (Oxford 2000).

⁸⁷ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007), p. 316.

⁸⁸ *Ibid.*, pp. 316-317.

resources were available. Spanish objections thus focused on the mining industry of most notably the *Potosí* land in what is nowadays Peru. Since Argentina merely functioned as a trade route for exporting the silver obtained, agricultural development was not emphasized to a large extent.⁸⁹

Concerning the element of labour when accounting for inequality in this chapter, it is demonstrated by the estimates in table 4 that compared to other Latin American countries the South American area, including Argentina, was not densely populated at the age of European contact. Labour was thus in short supply in the sparsely populated area. Later on during the colonial period African slaves became a resource for the colonists to exploit for labour, but few slaves were brought to Argentina when compared to Brazil or the Caribbean lands. The Spanish approach was directed towards preventing settlers to migrate to the Argentine area.⁹⁰

Since merely young men travelled to the Pampas, racial intermarriage became commonplace. A labouring class of mixed Spanish, African and native Indian descent emerged within Argentina. Since the political and economic power was in the hands of the so-called *peninsulares*, or the original elite Spanish colonists, which made up one percent of the population by 1700, a vast degree of inequality was present.⁹¹ However, during the colonial era, the so-called *criollos* came to outnumber the *peninsulares* and they had a different political agenda. The system which maintained the privileged position of the Spanish elite was subjected to a vast amount of pressure during the colonial period, building up to the revolution in 1810.⁹²

A comparison – geographical conditions

When considering historical evidence from the New World cases, differences concerning the variables of land inequality and population density and composition are established in this chapter. As is outlined above, both have had substantial impacts on the degree of societal inequality, via the distribution of land, as an economic asset, and labour, and are therefore both important for the development of public education.

The Frankema figures⁹³ and the figures in table 5 demonstrate that great land inequality prevailed in Latin American countries until the end of the nineteenth century. Frankema's assumption holds that there is a 'Latin type' of land inequality.⁹⁴ In colonies such

⁸⁹ R. Hora, *The landowners of the Argentinean Pampas* (Oxford 2001), p. 10.

⁹⁰ D.S. Landes, *The wealth and poverty of nations: why some are rich and some so poor*, (London 2007), pp. 316-318.

⁹¹ *Ibid.* pp. 318.

⁹² R. Hora, *The landowners of the Argentinean Pampas* (Oxford 2001) pp. 10-11

⁹³ E. Frankema, *The Colonial Origins of Inequality: Exploring the Causes and Consequences of Land Distribution* (Groningen 2006).

⁹⁴ *Ibid.* p. 14.

as Mexico and, to a smaller extent, Argentina great proportions of land were turned into so-called haciendas in order to contribute to the Spanish passions of extracting the mineral resources. In these countries potential agriculture such as wheat cultivation was relatively neglected. A small Spanish elite obtained political and economic power due to land inequality and enabled the fostering of this inequality. In contrast, on the North American mainland small family farms emerged that enhanced more equality. The geographical conditions stimulated grain agriculture since they provided for small-scale economies. Moreover, since land was equally distributed by means of a group plan political power was also initially more equally spread. It was necessary for the North American colonists to cooperate with one another and following from that a mechanism of political equality emerged which is assumed to be ultimately beneficial for educational institutional development.

TABLE 5: Landholding in rural regions of Mexico, the United States and Argentina in the early 1900s – in percent⁹⁵

Country, year, and region	Proportion of households heads who own land*
Mexico, 1910	
North Pacific	5.6
North	3.4
Central	2.0
Gulf	2.1
South Pacific	1.5
Total rural Mexico	2.4
United States, 1900	
North Atlantic	79.2
South Atlantic	55.8
North Central	72.1
South Central	51.4
Western	83.4
Alaska/Hawaii	42.1
Total United States	74.5
Argentina, 1895	
Chaco	27.8
Formosa	18.5
Misiones	26.7
La Pampa	9.7
Neuquén	12.3
Río Negro	15.4
Chubut	35.2
Santa Cruz	20.2
Tierra del Fuego	6.6

* Landownership is defined as follows: in Mexico, household heads who own land; in the United States, farms that are owner operated; in Argentina, the ratio of landowners to the number of males between the ages of 18 and 50.

⁹⁵ Source: S.L. Engerman, K.L. Sokoloff, 'Factor Endowments, Inequality and Paths of Development among New World Economies', *Economia*, vol. 3, iss. 1, p. 69.

Inequality could also be enhanced by the initial condition of population density. By hereby using the theoretical framework from Crosby⁹⁶ and considering the New World economies, a first category of countries can be considered as the so-called ‘Neo-Europes’; that is to say that within those countries a large amount of homogeneous population with European descent is present and the European structures regarding labour are copied. A second category of countries can be regarded as so-called ‘extractive states’. These are the countries where no European demographic dominance prevailed and where labour was mostly attained to the indigenous population. Following from the explanatory mechanisms by Acemoglu, Robinson and Johnson; and Engerman and Sokoloff it is argued that within the ‘Neo-Europes’, because of the more equal distribution of wealth and labour, more incentives for human capital promoting institutions emerged, whereas in the extractive states these incentives were thwarted.⁹⁷

TABLE 6: The distribution and composition of population in New World Economies⁹⁸

Colonial region and year	White	Black	Indian	Share in New World Population
Spanish America				
1570	1.3	2.5	96.3	83.5
1650	6.3	9.3	84.4	84.3
1825	18.0	22.5	59.5	55.2
United States and Canada				
1570	0.2	0.2	99.6	8.9
1650	12.0	2.2	85.8	33.2
1825	79.6	16.7	3.7	52.6

In table 6 is demonstrated that the North American mainland can be considered as a ‘Neo-Europe’ in that settlement emerged slowly, but when it did the English colonists were dominant in frontier life. Due to the large native population at hand and the restrictive migration policies of the Spaniards, Mexico developed to be an ‘extractive state’ and inequality regarding labour emerged to a great scale since the exploitation of labour was essential in satisfying the Spanish passion for obtaining mineral resources. Argentina, however, is difficult to place in one of the two categories. Inequality was obviously relatively greater compared to the North American region, but this was not due to the presence of a large amount of indigenous population. Although sparsely populated, the requirements for

⁹⁶ A. Crosby, *Ecological Imperialism: the biological expansion of Europe 900-1900* (New York 1986).

⁹⁷ Ibid.; D. Acemoglu, S. Johnson, J.A. Robinson, ‘Reversal of Fortune: geography and institutions in the making of the modern world income distribution’, *Quarterly Journal of Economy*, vol. 117; M.C. Meyer, W.H. Beezley, *The Oxford History of Mexico* (Oxford 2000).

⁹⁸ S.L. Engerman, K.L. Sokoloff, ‘Factor Endowments, Inequality and Paths of Development among New World Economies’, *Economia*, vol. 3, iss. 1, pp. 53.

settlement set up by the Spanish crown prevented for the emergence of migration by European colonists. Furthermore it was this policy that created a higher degree of inequality since it enhanced the economic and political power of a small group of elite.

CHAPTER 3 – POLITICAL VOICE AND SCHOOLING

“What fuller democracies delivered relative to non-democracies or elite democracies, was primary education, the kind of tax-based education that redistributed the most from rich to poor.”⁹⁹

Political organization and the distribution of political influence

As asserted in the introductory text this chapter will focus on the relation between political inequality and the development of public schooling within the Americas. That fuller democracies are more conducive to the rise of mass public schooling, as postulated by the quotation above, is not an idea uncommon to political and educational historians.

Distributing political influence to the population is most obviously done by the conduct of elections for local, or national governments. Having the opportunity to vote and to actually participate in the electoral system is characteristic of a democratic society in which political influence is equally spread. Historical evidence on voter participation can establish to which degree this form of democratic government and equality was present in earlier societies. Moreover, the conduct of elections has been long recognized as one of the most crucial institutions of path dependency.¹⁰⁰ Society’s specific political organization and the amount of distribution of political influence to its population are important elements for the development of other institutions and for the adoption of public policies such as those on public education. There are various theories on the connection between the spread of political voice and human capital development.

McGuire and *Olson* maintain for example via an optimal-exploitation model that a democracy with widespread political voice does not necessarily bring about change in educational policies and that even decline in mass education within a society can be causally connected to the extension of suffrage.¹⁰¹ *Lindert* takes up position against this explanation by substantiating via statistical evidence and regression analysis that there is a firm link between unequal political power and underdeveloped human capital.¹⁰² His viewpoint holds that democratic voting rights have a central role in providing for public education. He argues that in various historical cases powerful elites opposed public education at the expense of the taxpayer. Their motives were either that they wanted to keep children with less social status

⁹⁹ P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 2, further evidence* (New York 2004), p. 40.

¹⁰⁰ See Engerman and Sokoloff’s link with path dependency within the introduction of: S.L. Engerman, K.L. Sokoloff, “The evolution of suffrage institutions in the New World”, *The Journal of Economic History*, vol. 65, iss. 4, pp. 891-892.

¹⁰¹ M.C. McGuire, M. Olson, “The economics of autocracy and majority rule: the invisible hand and the use of force.”, *Journal of Economic Literature*, vol. 34, iss. 4, pp. 72-96.

¹⁰² Lindert shows statistical evidence concerning this relation in: P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 2, further evidence* (New York 2004), pp.36-47.

unschooled and illiterate in order to retain a vast group of low-wage labourers, or that they simply found paying for the education of the masses too costly.¹⁰³ Thus, in places where the elite held a politically powerful position and where political voice was more unequally spread, poor children received less help from the taxpayer for schooling purposes.¹⁰⁴

Scholars such as *Engerman, Sokoloff and Mariscal* have advanced a theory closely linked to the *Lindert* evidence by establishing the relation between suffrage and education for the specific cases of the Americas from 1600-1914.¹⁰⁵ Their argument forms the basis of this chapter and holds as well that a broad distribution of political influence ultimately fosters investment in public education, since participation of a large part of the population in determining government also provides for policies investing in public goods such as public education. Furthermore they suggest that the distribution of political power can be explained by data on electoral participation and by the specific laws on the extension of the suffrage within the Americas.¹⁰⁶

In what follows we will investigate the political organizations in the cases of Mexico, the USA and Argentina during 1600-1900. Thus, deriving from the *Lindert; Engerman, Sokoloff and Mariscal* premise, this chapter aims at explaining these exact characteristics of political organization and suffrage of the USA, Mexico and Argentina. A balanced insight into their histories and into data on voting participation will allow for a deeper understanding of the degree of political inequality and its eventual impact on public education development.

Political organization in the North American colonies

The British crown was the major administrative power during the entire colonial period. Colonial administration was at the highest level divided into two main segments; the British parliament made sure the trading network with the New World colonies was in order, and as part of the 'royal prerogative' the king was responsible for the internal government of the British colonies.¹⁰⁷

¹⁰³ The explanation of the landed elite maintaining a powerful position and preventing the extension of the franchise, public policies and human capital development has been advanced by various others such as: P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 1, the story* (Cambridge 2004), pp.100-101; S.L. Engerman, K.L. Sokoloff, 'Factor Endowments, Inequality and Paths of Development among New World Economies', *Economia*, vol. 3, iss. 1, pp. 71-75.

¹⁰⁴ The group of theories concerning the role of elite in the evolution of suffrage and political life are generally referred to as the 'elite self-interest theories'.

¹⁰⁵ Various articles on this subject have been published by Engerman, Sokoloff and Mariscal, see for example: S.L. Engerman, E. Mariscal, K.L. Sokoloff, 'Schooling, suffrage, and the persistence of inequality in the Americas, 1800-1945', *working paper* (1998).

¹⁰⁶ See: S.L. Engerman, K.L. Sokoloff, 'The evolution of suffrage institutions in the New World', *The Journal of Economic History*, vol. 65, iss. 4, pp. 891-921.

¹⁰⁷ R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992), p.318.

The principle representative of the crown within each colony was the governor, whose power mainly rested upon the responsibility for the execution of laws and the responsibility to defend the colony. Moreover, he was appointed to convene privileged local authorities into so-called assemblies and he appointed officials on behalf of the king. These officials, including for example a secretary, naval officer, police officer and attorney general, were under his direct supervision and executed further administrative tasks. The governor's legislative function was moreover shared with the council which functioned as the highest provincial court of appeal and which consisted of an 'upper house' for the passage of newly devised laws. It is perceived by scholars nowadays that the so-called assemblies, convened by the governor, resembled early democratic parliaments. They functioned as 'watchdogs' over administration and accounted for the establishment of legislature. Moreover, their members were in almost every single colony selected by a substantial part of the population.¹⁰⁸

Most colonists did however not deal with these high strata of provincial and royal government. The supervision by the crown and even provincial governors were remote from them and their lives were mainly structured by local government. In the colonies on the eastern plain, such as New England and Massachusetts, town government was the principal element of political organization. Town administration was at the initial phase of settlement restricted to the clergy, but during the seventeenth century other prominent members of society were able to enter the political framework as well. This local political organization held specific democratic elements such as the appointing of the town officials by formal annual elections. Of all officials elected, the so-called selectmen were especially important in town government since they held general responsibility for the tax policies and judiciary issues.¹⁰⁹

Following from this fact that local government had profound influence on policy and daily colonial life within the North American hemisphere, it is important to note one of *Lindert's* central points. He has emphasized the importance of the degree of centralization and decentralization in North American government before and during the rise of mass schooling.¹¹⁰ His theory holds that the development of primary public education depended strongly on whether public decisions concerning schooling, such as the contents of the curriculum and its financial provision, were made by a local or central government. He believes there to be sufficient proof to assume that local autonomy has had clearly positive effects on public educational development when local authorities were installed by the approval of a substantial part of the society and when the total demand of tax-funded public

¹⁰⁸ Ibid., pp. 323-325.

¹⁰⁹ More information on town politics: R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992), p.319-322.

¹¹⁰ P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 1, the story* (Cambridge 2004), pp. 122-124.

schooling coincided with economic development, which was the case especially in the Northeastern part of America. He states that: “localities wanting more education, with the median voter willing to pay for it, were unchecked by the hostility of elites outside their own communities. The full potential efficiency of local schools as a public good serving a local consensus was realized.”¹¹¹

Although the British crown desired a unified organization, no centralized political organization was present during the colonial era and most regions carried out their own political strategies. This pattern of federalism increased from the eighteenth century onwards. Especially from the historical moment of the ‘Glorious Revolution’ in Britain in 1689 onwards when the authority of the crown had been seriously challenged, American government depended less and less on central royal institutions.¹¹² Most historians believe that furthermore a republican spirit arose amongst the North American population, which provided a few decades later at the eve of independence for the rapid change of political framework. However, as it is also asserted by several scholars that this claim of the republican mentality was of a more practical and subconscious nature it is not certain to say whether political change was based on ideology. Stimulated by the increasing complexity of society and the desire of the majority of the population to be entitled to participate in the political organization, state governments became more democratic. When independence was achieved and imperial government was abandoned most elements of colonial governments were copied, but new institutions took form.¹¹³ The supervision of the crown was replaced by a newly installed presidency on all states and federal governments divided the power of state and church. Moreover, suffrage expanded to a larger part of the population and democratic institutions such as parliaments were installed.¹¹⁴

Suffrage and political inequality in the North American colonies

As argued in the above paragraph it was during the colonial era most common for the governor and its council to be appointed by royal officials from Britain and for the assemblies and town meetings to have more democratic characteristics in electing its members. Although this pattern of appointment varied throughout the North American hemisphere and some colonies such as Rhode Island and Connecticut were famous for even appointing the governor

¹¹¹ Ibid., p. 123. Lindert does however state that the role of local authority could work out the exact opposite direction by preventing the establishment of public education. He states that this only holds true when localities consisting of elite population try to prevent the influence of central and national policies installing a public education system within their region.

¹¹² D.S. Lovejoy, *The Glorious Revolution in America* (New York 1972).

¹¹³ R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992), p.337-340.

¹¹⁴ For more information on institutional change in the nineteenth century, see: *The Cambridge economic history of the United States, volume II: the long nineteenth century* (New York 2000).

and its council by popular vote as well, widespread voting was not achieved at the break of independence.¹¹⁵

TABLE 7: Qualifications for suffrage in the original thirteen colonies and the new states¹¹⁶

	Qualifications in 1787 or year of entry	Year economic qualifications ended, or qualifications in 1860*
Original thirteen		
New Hampshire	Tax	1792 (tax)
Massachusetts	Property	1821 (property), tax requirement in 1860
Rhode Island	Property	1842 (property), tax requirement in 1860
Connecticut	Property	1818 (property), 1845 (tax)
New York	Property	1821 (property), 1826 (tax)
New Jersey	Property	1807 (property), 1844 (tax)
Pennsylvania	Tax	tax requirement in 1860
Delaware	Property	1792 (property), tax requirement in 1860
Maryland	Property	1802 (property)
Virginia	Property	1850 (property)
North Carolina	Property	1856 (property), tax requirement in 1860
South Carolina	Tax	1810 (tax)
Georgia	Property	1789 (property), 1798 (tax)
New states		
Vermont	none (1791)	
Kentucky	none (1792)	
Tennessee	none (1796)	
Ohio	tax (1803)	1851 (tax)
Louisiana	tax (1812)	1845 (tax)
Indiana	none (1816)	
Mississippi	tax (1817)	1832 (tax)
Illinois	none (1818)	
Maine	none (1819)	
Alabama	none (1819)	

* Tax requirement in 1860 means that a tax-based qualification for suffrage was still in effect in that year.

Following from the figures in table 7, the right to vote in colonial North America was initially restricted to adult white men with large real estate holdings. Due to differences in the extent of inequality in landholding, which is looked into in the previous chapter of this thesis, there were different proportions of the population eligible to vote varying from region to region.¹¹⁷

¹¹⁵ R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992), p.318; S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, p. 895.

¹¹⁶ Source: S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, p. 895. Engerman and Sokoloff derived this information from a combination of the work by Porter, Williamson and Keysser.

¹¹⁷ S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, p. 895; K.H. Porter, *A history of suffrage in the United States, 1850-1870* (Chicago 1918).

The logic of the landholders having the right to vote held that because of their share in land they had a more long-term interest in the well-being of the community compared to mere freemen, thus they had the right to make decisions on communal issues.¹¹⁸

As the republican spirit gained more ground in the minds of the colonial population and as the provincial societies became more complex, the logic of the landowning elite having solely the privilege to participate in elections was abandoned. Various interest groups emerged and suffrage qualifications were highly debated. When the consequences of independence forced the new-born states to create new political frameworks out of their former colonial organization, most voting requirements were substantially changed. State governments moved away from property requirements and devised alternative manners to set up electoral requirements, such as imposing tax or other wealth requirements.¹¹⁹ Following from the figures in table 7, most economic qualifications were done away with in most north eastern states during the first quarter of the nineteenth century. However, tax requirements seem to have lingered on a few decades longer until the middle of the nineteenth century. Important when looking into political inequality within the U.S.A. is the fact that the states stemming from the old colonies were not the pioneers of extending the franchise. It were the new-born states such as Vermont, Kentucky and Tennessee which firstly did away with economic qualifications for suffrage.¹²⁰

TABLE 8: Percentages participation by adult white males in presidential elections¹²¹

	Year*	Percentage	1824	1828	1832	1836	1840	1844
Maine	1812	62.0	18.9	42.7	66.2	37.4	82.2	67.5
New Hampshire	1814	80.8	16.8	76.5	74.2	38.2	86.4	65.6
Vermont	1812	79.9	-	55.8	50.0	52.5	74.0	65.7
Massachusetts	1812	67.4	29.1	25.7	39.3	45.1	66.4	59.3
Rhode Island**	1812	49.4	12.4	18.0	22.4	24.1	33.2	39.8
Connecticut	1819	54.5	14.9	27.1	45.9	52.3	75.7	76.1
New York	1810	41.5	-	70.4	72.1	60.2	77.7	73.6
New Jersey	1808	71.8	31.1	70.9	60.9	69.3	80.4	81.6
Pennsylvania	1808	71.5	19.6	56.6	52.7	53.1	77.4	75.5
Delaware	1804	81.9	-	-	67.0	69.4	82.8	85.0
Maryland	1820	69.0	53.7	76.2	55.6	67.5	84.6	80.3

¹¹⁸ This idea of ‘freeholders’ was rooted in medieval British philosophy; see: C. Williamson, *American Suffrage: From property to democracy 1760-1860* (Princeton 1960).

¹¹⁹ S.L. Engerman, K.L. Sokoloff, “The evolution of suffrage institutions in the New World”, *The Journal of Economic History*, vol. 65, iss. 4, pp. 896-909.

¹²⁰ The explanation of this region-bound development of the franchise is varying. Explanations are for example based upon labour scarcity in the new-born states and thus the idea that these states need to attract settlers. Having full political participation might have been a good motive for immigrants to settle, thus the theory holds that franchise was extended to provide for this settler attractiveness. See for example: A. Keyssar, *The right to vote: the contested history of democracy in the United States* (New York 2000), pp. 33-34 and F.J. Turner, *The frontier in American history*, (New York 1920).

¹²¹ Source: R.P. McCormick, “New perspectives on Jacksonian politics”, *American Historical Review*, vol. 65, iss. 2, p. 292.

Virginia**	1800	25.9	11.5	27.6	30.8	35.1	54.6	54.4
North Carolina	-	-	42.2	56.8	31.7	52.9	83.1	79.1
Georgia	1812	62.3	-	35.9	33.0	64.9	88.9	94.0
Kentucky	1820	74.4	25.3	70.7	73.9	61.1	74.3	80.3
Tennessee	1817	80.0	26.8	49.8	28.8	55.2	89.6	89.6
Louisiana	1812	34.2	-	36.3	24.4	19.2	39.4	44.7
Alabama	1819	96.7	52.1	53.6	33.3	65.0	89.8	82.7
Mississippi	1823	79.8	41.6	56.6	32.8	62.8	88.2	89.7
Ohio	1822	46.5	34.8	75.8	73.8	75.5	84.5	83.6
Indiana	1822	52.4	37.5	68.3	61.8	70.1	86.0	84.9
Illinois	1822	55.8	24.2	51.9	45.6	43.7	85.9	76.3
Missouri	1822	71.9	20.1	54.3	40.8	35.6	74.0	74.7
National average			26.5	56.3	54.9	55.2	78.0	74.9

* In this year the highest number of adult male voting before 1824 was achieved per state. These numbers are however not useful for comparison with later numbers, since the method of electing the president or government differed in later years. The estimates of 1824-1844 are all on presidential elections. McCormick wants to highlight the fact that voting participation during the so-called 'Jacksonian period' was not that high as compared to earlier periods.

** Rhode Island and Virginia had property qualifications during the time of these elections.

Although, following from table 8 and 10, it is thus justifiable to conclude that political influence became more equally spread throughout the North American colonies and the United States during the eighteenth and nineteenth century, the contemporary idea of universal suffrage was not achieved by far. The ideology of universal suffrage was until the twentieth century only applied to white males.¹²²

Political organization in New Spain

The political framework of New Spain during the colonial period was laid out in the early years of Spanish conquest. Although some Indian institutions were copied in the initial phase of colonization, administration in New Spain was thoroughly absolutist in design during the colonial era.¹²³ From the arrival of the Spaniards until the establishment of independence in 1821 New Spain was ruled by a so-called viceroy who governed from Mexico-City and had almost royal status and privileges.¹²⁴ Political power was initially in the hands of the *peninsulares*, or pure-blood Spaniards, who controlled administrative, military and religious institutions.¹²⁵

¹²² S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, pp.907-908. See for example on the exclusion of blacks in the South: J.M. Kousser, *The shaping of Southern politics: Suffrage restrictions and the establishment of one-party South, 1880-1910* (Yale 1974). At the end of the nineteenth century new laws concerning suffrage were even installed to exclude certain large groups within the population such as women, blacks, the mentally incompetent, criminals and Native Americans.

¹²³ E. Williamson, *The penguin history of Latin America* (London 1992), p.91.

¹²⁴ *Ibid.*, pp.92.

¹²⁵ H. Handelman, *Mexican politics: the dynamics of change* (New York 1997), p.27.

One of the most important administrative institutions were the so-called *audiencias* which functioned as advisory organs to the viceroy. Situated in the larger cities of the provinces the *audiencias* had administrative and executive powers and acted as a judicial court of appeal. Although the viceroy appointed its members and retained ultimate responsibility for policy matters, the *oidores* (members) of the *audiencias* were able to influence the viceroys' decisions and thus acquired a vast amount of political power. Because the *oidores* generally retained their political functions longer than the viceroys they provided continuity in the government and were tied to certain local interests. From the end of the sixteenth century until independence, the crown often felt itself forced to sell public offices, most notably the positions in the *audiencias*.¹²⁶ In effect most *audiencias* became filled over time with American-born elite, also referred to as *criollos*.

The local administrative organization was furthermore executed by *corregidores*, or *alcades mayores* who had small executive and administrative powers.¹²⁷ They were appointed to collect tribute, and later on taxes, from the population and to enforce them to cooperate on public works. However, since a public office was mostly seen as an aspect of personal patrimony and did not bring about a good salary, the extraction of tribute was often disproportional and rarely kept within the limits of the laws set up by the *audiencias*. Thus, the abuse of office was most widespread within these lower regiments of government.¹²⁸

The single political institution which is nowadays regarded as an institution with an element of democracy within New Spain is the so-called *cabildo*, or town council.¹²⁹ These *cabildos* were present in every town consisting of a *corregimiento* and were allowed to propose local taxes, maintain order and supervise municipal land distribution and local markets. Membership of the town council was drawn from the local population and members were often appointed by the *corregidor*. Sometimes, however, elections were held to determine the members of the *cabildo*, but voting was restricted to the most prominent



¹²⁶ More information about *audiencias* and *oidores* in: E. Williamson, *The penguin history of Latin America* (London 1992), pp.92-94.

¹²⁷ H. Handelmann, *Mexican politics: the dynamics of change* (New York 1997) pp.27-28.

¹²⁸ E. Williamson, *The penguin history of Latin America* (London 1992), p.96.

¹²⁹ The amount of members present within the *cabildo* varied according to the amount of population within the region. Most *cabildos* consisted basically of six *regidores* (shipmen), an *alguacil mayor* (policeman), an *alférez real* (ceremonial function to celebrate the king), and three financial administrators: the *tesorero*, *contador* and *depositario general*. The mayors of the town were chosen by the *cabildo* members and were the so-called *alcaldes ordinarios*. For more information on the exact formation of the *cabildo* see: J.I. Israel, *Race, class and politics in colonial Mexico 1610-1670* (Oxford 1975), pp. 94-99.

vecinos of the town.¹³⁰ Prominent town citizens monopolized the *cabildo* seats and passed them on to relatives or political clients. Although elections were sometimes held, this practice thus ultimately resulted into a more oligarchic than democratic municipal government.¹³¹

Suffrage and political inequality in New Spain

The extent of the franchise in New Spain was small during the colonial era, since during colonial rule solely the *vecinos* were eligible to vote. In the initial centuries of colonial settlement this class of *vecinos* consisted solely of the *peninsulares*, which made out one percent of the entire population. When during the eighteenth century the right to vote was extended to a substantial part of the *criollo* inhabitants in New Spain as well, voting participation increased.¹³² However the largest majority of the population, the natives and *mestizos* were restricted from political influence and were not eligible to participate in elections of the *cabildos*.¹³³

Laws concerning suffrage varied throughout the Latin-American region during colonial reign. However, within the viceroyalty of New Spain qualifications for voting based on wealth and property requirements were common practice in all provinces. Participation in the elections of the *cabildos* was during the seventeenth and eighteenth century restricted to substantial landowners within the municipality and within some regions the *cabildo* members were actually even the only ones eligible to appoint new members.¹³⁴ Thus, due to the vast degree of land inequality (as is discussed in the previous chapter) and because of the aspect of the passing on of *cabildo* seats between prominent families, the majority of the population had no political influence. Political inequality due to inequality in the distribution of political influence was therefore thoroughly present.

However, laws expanding suffrage did occur over time in Mexico, especially when the republican spirit emerged during the late eighteenth and first half of the nineteenth century. Restrictions specifically based on land ownership were made more flexible and different types of wealth requirements were introduced. Other property requirements, income thresholds, social standing and professional occupation were new means to measure the right to vote.¹³⁵ This loosening of voting requirements during the independence era can be tied to

¹³⁰ *Vecino* literally means 'citizen with the right to vote' in Spanish.

¹³¹ E. Williamson, *The penguin history of Latin America* (London 1992), pp.96-97.

¹³² On *criollo* voting participation: S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, p. 912.

¹³³ J.I. Israel, *Race, class and politics in colonial Mexico 1610-1670* (Oxford 1975), pp. 94-96.

¹³⁴ S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, pp. 912-913.

¹³⁵ *Ibid.*, pp. 912-914.

the growing interests of the *criollo* elite. Since they were more complex in composition and often did not belong to the landed elite they favoured different rights of voting.¹³⁶

A movement towards restricting voting by means of an alternative method developed; literacy as a voting requirement evolved to be a dominant standard throughout Mexico during the nineteenth century. The foremost purpose of the literacy requirement was to establish which Mexican inhabitants were rightful citizens.¹³⁷ Regarding the electoral system the literacy test might have been introduced because it was more effective in screening and administratively easier than the earlier wealth requirements. Being able to read and write was a capacity quite rare amongst the native Indian population and was a privilege reserved to the elite *peninsulares* and *criollo* classes.¹³⁸

Since literacy rates were extremely low within the Mexican region and wealth and land were unequally distributed, these requirements prevented the major part of the population from voting during the nineteenth century.¹³⁹ Estimates issued by various authors state that as late as the end of the nineteenth century only 1-2 percent of the population was electorally active and following from the figures in table 9, the franchise was extended in the early twentieth century to a mere 8.6 percent of the population. It was only until the late nineteenth century and beginning of the twentieth century that all requirements to vote were abandoned and universal male suffrage was established in Mexico.¹⁴⁰

TABLE 9: The extent of voting in the Americas 1840-1920¹⁴¹

Country	Year	Lack of Secrecy in Balloting	Wealth Requirement	Literacy Requirement	Proportion of the Population Voting
Chile	1869	N	Y	Y	1.6
Ecuador	1848	Y	Y	Y	0.0
	1856	Y	Y	Y	0.1
Mexico	1840	Y	Y	Y	-
	1920	N	N	N	8.6
Canada	1867	Y	Y	N	7.7
	1878	N	Y	N	12.9
	1911	N	N	N	18.1
United States	1850	N	N	N	12.9
	1880	N	N	N*	18.3
	1900	N	N	Y*	18.4
	1920	N	N	Y*	25.1

¹³⁶ S.J. Stein, B.H. Stein, *The colonial heritage of Latin America* (Oxford 1970), pp.157-187.

¹³⁷ S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, p.912.

¹³⁸ *Ibid.*, p.912.

¹³⁹ For literacy rates, see the introductory chapter of this thesis.

¹⁴⁰ Estimates by: S.L. Engerman, S. Haber, K.L. Sokoloff, "Inequality, institutions, and differential paths of growth among New World economies", in: C. Menard, *Institutions, contracts and organizations* (Cheltenham 2000), pp. 108-134; E. Posada-Carbo ed., *Elections before democracy: the history of elections in Europe and Latin America* (New York 1996).

¹⁴¹ Source: S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4, pp. 910-911.

Argentina	1896	Y	Y	Y	1.8**
	1916	N	N	N	9.0

* Connecticut and Massachusetts introduced literacy requirements during the 1850s. Sixteen other states, seven southern and nine non-southern, introduced literacy requirements between 1889 and 1926.

** This figure is for the city of Buenos Aires and likely overstates the proportion who voted at the national level.

Regarding public education development it is however important to notice the influence the literacy requirements might have had during the entire nineteenth century. Not only was the inequality of political distribution within Mexico during the colonial and independent period an obstacle for investment in public goods such as public education, but the specific requirement of literacy within the political system might have had an extra dimension in preventing human capital development. Various scholars have postulated that since it was in the interest of the elite to maintain its powerful position and since their method of doing so was creating a threshold by means of literacy, it was not in their interest to provide the ability of reading and writing to the mass of the Mexican population. Thus, whereas in other countries such as the United States public policies provided for the rise of public schooling during the nineteenth century, in Mexico (as well as other Spanish American countries) the interaction of low literacy levels and literacy requirements for political participation led to a policy in which the prevention of public schooling was emphasized in order to maintain the powerful position of the elite.¹⁴²

Political organization in Argentina

To understand the political organization of Argentina during the colonial period it is important to notice that the Argentinean area was not a well-delineated unity as we are familiar with nowadays. From the seventeenth century onwards the territory of what was later to become Argentina, fell under the jurisdiction of the viceroyalty of Peru. The main government was, similar to the case of Mexico, executed by the Spanish crown. However, since no mineral resources and large amounts of native population were present to exploit in the Argentinean territory, the crown did not impose a profound political infrastructure.¹⁴³

Political organization in the viceroyalty of Peru was in a large part similar to the organization of colonial New Spain as outlined above. The role of the *audiencias* was limited and since the territory was inhabited by small communities, however, the more decentralized *cabildos* had more executive power. Because of the lack of interest, the royal authorities mostly let those *cabildos* free from large restrictions. The most important rule executed by the Spanish crown held that the Argentinean trading system was tied to the Peruvian trading

¹⁴² Scholars claiming this interaction of literacy requirements and schooling are for example: S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4.

¹⁴³ *Ibid.*, pp.122-123.

network and that it was forbidden to exchange commodities via the largest Argentinean river, the *Río de la Plata*.¹⁴⁴ The relatively free position of the *cabildos*, or councils, had effects in two directions. First, it provided for a relatively high amount of political participation of the population of *peninsulares* and *criollos*. On the other hand, it also permitted corruption and exploitation of the native population on large scale. Because there was limited control over the execution of laws within the Argentinean settlements, the political elite was able to extract a disproportionate amount of tax and tribute from the powerless part of the population. Following from that notion, the political power was very unequally distributed and elements of early democracy were overshadowed by corruption.¹⁴⁵

As already mentioned the Bourbon reforms had substantial effects throughout the entire Spanish American hemisphere, but they were especially important for the political development of what was to become Argentina. Most interestingly so, since these reforms were partially introduced to suppress the large amount of corruption within the Argentinean settlements.¹⁴⁶ The promotion of efficiency, the increasing of the tax yield, and the development of export and colonial markets, were other important motives for the restructuring of administration within the territory. Within the highest strata of government the most important decision concerning Argentinean government was taken; a new viceroyalty was installed within the colonial hemisphere, namely the viceroyalty of the *Río de la Plata*. This area consisted mainly of what are nowadays Argentina, Uruguay, Paraguay and Upper Peru and was governed from the capital city of Buenos Aires.¹⁴⁷

Moreover, on a more decentralized level the major innovation was the division of the newly-born viceroyalty into so-called intendancies. The intendants were as Rock has stated: “the archetypal agents of the later Bourbon quest for active, positive authority”. They obtained considerable political power and had responsibility for taxation, economic investment, the organization of the defense and militia, justice and the old and corruptive *cabildos*.¹⁴⁸ More importantly so, considering the relation between political organization and educational development; the intendants were responsible for public policies as well.

Suffrage and political inequality in Argentina

As asserted by several scholars such as *Sokoloff and Engerman*, Argentina was one of the countries with the most progressive suffrage laws compared to other countries within the

¹⁴⁴ More information on this trading network in: D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), pp. 58-60.

¹⁴⁵ T.J. Edwards, *Argentina: a global studies handbook* (Santa Barbara 2008), pp.120-21.

¹⁴⁶ This theory is explained further by Rock in: D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), p.60.

¹⁴⁷ T.J. Edwards, *Argentina: a global studies handbook* (Santa Barbara 2008), pp. 124-125.

¹⁴⁸ D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), p.60.

Latin American hemisphere. Together with Colombia it was during the nineteenth century the only major country which had not imposed literacy requirements on suffrage on the national level.¹⁴⁹ However, its colonial heritage and political instability provided for a decentralized political organization and thus much variation of voting procedures across the country. Literacy requirements were not imposed on the national level, but were however present in legislature concerning provincial or local elections. So, for example literacy and wealth requirements were both imposed within Buenos Aires, the capital city of Argentina, which consisted of the largest part of the population.¹⁵⁰

Moreover, it is important to notice that inequality in the distribution of political power is not only created by means of qualifications for voting. Practices such as open balloting, and writing out elections infrequently prevent democratic government. Although Argentina might have been progressive in abandoning the restrictions for the voting procedure, its system of public voting existed of few places to vote and there was no secret standardized ballot during the entire nineteenth century. The so-called ‘Australian ballot’, or voting system with secrecy and standardized public ballots was introduced in Argentina in 1912 and led to a rapid increase in voter participation.¹⁵¹

A comparison – political structures

As outlined in the introductory paragraph, this chapter’s aim was to establish to what extent inequality due to political structures was present in the societies of colonial and early post-independence America. Two variables are crucial to come to grips with this degree of political inequality, namely firstly the organization of the political system and its democratic framework and secondly the extension of suffrage by looking at specific suffrage laws. Moreover, direct links between educational development and political structures have been suggested. Relevant concerning this association is the assumption made by *Lindert* that the decentralization of the political organization has had positive effects on education within the North American mainland.¹⁵² In addition we have suggested that in Mexico the interaction of low literacy levels and literacy requirements for political participation led to a policy in which

¹⁴⁹ S.L. Engerman, K.L. Sokoloff, “The evolution of suffrage institutions in the New World”, *The Journal of Economic History*, vol. 65, iss. 4, pp.913.

¹⁵⁰ D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), p.60.

¹⁵¹ For more information on the effects of the universal male suffrage laws in the early twentieth century see: L. Bethell, ed., *The Cambridge Economic History of Latin America: 1870 to 1930*, vol. 5 (Cambridge 1986), pp. 359-391.

¹⁵² P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century*, volume 1, *the story* (Cambridge 2004), pp. 122-124.

the prevention of public schooling was emphasized in order to maintain the powerful position of the elite.¹⁵³

Generally it can be stated that there was less unequal distribution of political influence within the North American colonies compared to the Latin American colonies. This difference was however not achieved via an extreme variation in the laws concerning suffrage. Suffrage laws were in all three cases restrictive at the first period of colonial settlement and the specific requirements developed during the latter centuries of colonial government and most notably at the break of the independence period. Although the wealth requirement was present in all three cases, it provided for more suffrage equality within the English colonies since wealth itself was more equally distributed. Within New Spain and Argentina, economic assets that were necessary for participating in the electoral system, such as land, were unequally distributed as is already demonstrated in the previous chapter. It is important to notice furthermore that, as suffrage laws developed, Argentina maintained one of the most progressive policies concerning electoral participation in the Latin American hemisphere. The effects of this progressive spirit became however particularly visible well after the start of the twentieth century. Evidence from table 10 shows for instance that the amount of voter turnout at the end of the nineteenth century strongly correlated with the enrollments of children into primary schools.

TABLE 10: Electoral democracy and schooling in 1880¹⁵⁴

	Democracy		Primary School Enrollments per 1000 Children of Ages 5-14, 1880-1882	
	<i>1880 Voter Turnout</i>	<i>Electoral Democracy in 1910?</i>	<i>Total</i>	<i>Public</i>
United States	0.690	Yes	906	800
Canada	0.509	Yes	---	800
Netherlands	0.098	Yes	628	473
U.K.	0.367	Yes	---	537
Spain	0	No	---	517
Mexico	0	No	---	187
Argentina	0	No	---	143
Italy	0	No	346	324

The second variable that can account for inequality and ultimate human capital development is the aspect of the organization of the political structure. As outlined above the hypothesis

¹⁵³ Scholars claiming this interaction of literacy requirements and schooling are for example: S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4.

¹⁵⁴ P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 1, the story* (Cambridge 2004), p. 109.

here examined holds that in countries with a democratic framework of government during the colonial period public education was stimulated, whereas the countries lacking a democratic shape of government lagged behind in this respect.

As demonstrated, the main difference between New Spain and the North American colonies was the aspect of centralization of government. Both areas were initially subject to the royal government of the colonial motherlands, however since the North American political organization was more decentralized, more democratic institutions could develop. Particularly the town governments of the British colonial townships had specific democratic elements such as the appointing of the town officials by formal annual elections. Moreover, the crown remained more restrictive within the New Spain government during the colonial period; so-called *cabildos* were the single democratic assemblies present in the political system, however these were virtually always subject to corruption. This form of political organization and restrictive royal policies were present within the Argentinean area as well. The structure of inequality changed however, as the Bourbon reforms were installed within the Latin American societies, however actual democracy was not achieved within this area until after the first decades of the twentieth century as can be perceived from table 10.

CHAPTER 4 – ECONOMIC OPPORTUNITIES

Economic participation

As stated in the introductory chapter, the question on the relationship between human capital formation and economic prosperity has been raised often within the field of social and economic history. It is generally stated that human capital development is a key factor in economic growth. However, the causal connection in the other direction – the impact of economic development on the emergence of human capital – has not been researched to the same extent.¹⁵⁵ Therefore, this chapter analyses in what way economic structures and institutions within the Americas have eventually contributed to, or prevented the development of public primary education.

Economic structures and institutions are both broad concepts and the effects economic development has had on the development of primary public education during the colonial period and beyond can be investigated in various manners. For instance one important method of research is historical market analysis. Authors such as *Galor* and *Zeira*, and *Haber* state that imperfect capital markets have formed considerable barriers on human capital formation.¹⁵⁶ In addition, it is argued that access to economic opportunities by a broad part of the population enhances economic development. In this respect, the question of inequality is also addressed. It is assumed that where there is inequality in access to economic opportunities, that economy will develop to a lesser extent compared to economies where economic participation by a broad part of the population is stimulated.¹⁵⁷ *Hoff* underlines this theory in the course of her research on larger patterns of historical institutional path development. According to *Hoff*, “societies that began with more extreme inequality were more likely to develop institutions allowing much of the population only limited access to economic opportunities”.¹⁵⁸ Thus, initial equality may be advanced as a condition for

¹⁵⁵ Authors investigating the impacts of human capital development on economic development are for example: B. van Leeuwen, *Human Capital and Economic Growth in India, Indonesia and Japan, A Quantitative Analysis, 1890-2000* (Utrecht 2007); D. Mitch, ‘Education and economic growth in historical perspective’, EH.net Encyclopedia, see: <http://eh.net/encyclopedia/article/mitch.education>.

¹⁵⁶ O. Galor et al., *Land inequality and the emergence of human capital promoting institutions* (working paper 2006); S. Haber ed., *How Latin-America Fell Behind* (Stanford 1997).

¹⁵⁷ D. Acemoglu, J.A. Robinson, ‘Political losers as a barrier to economic development’, *American Economic Review Papers and Proceedings*, vol. 90, iss. 2, pp.126-130; K. Hoff, ‘Paths of institutional development: a view from economic history’, *The World Bank Research Observer*, vol. 18, iss. 2, pp.205-226; K.L. Sokoloff and B. Zorina Kahn, ‘The democratization of invention during early industrialization: evidence from the United States, 1790-1846’, *Journal of Economic History*, vol. 50, iss.2, pp. 363-378.

¹⁵⁸ K. Hoff, ‘Paths of institutional development: a view from economic history’, *The World Bank Research Observer*, vol. 18, iss. 2, pp.205-226. Hoff also states that the so-called ‘Reversal of Fortune’ (derived from Acemoglu, Johnson, and Robinson) took place at the onset of the Industrial Revolution. Her hypothesis holds that the timing was crucial for this event to take place, since at that moment of

economic institutions to support the distribution of economic participation and to eventually stimulate human capital development.

Moreover, from connecting economic access to the emergence of public education one can argue that the equal distribution of economic participation often forms a part of a society, where the ideal of accessibility of education to a broad part of its population is present.¹⁵⁹ This connection between economic access and the emergence of public education is established in two different ways. First, inequality of economic access often coincides with political inequality. As *Acemoglu* and *Robinson* have stated; “the relationship between economic institutions and the political regimes that support them provides another link between inequality and political development; for example, societies with economic institutions favoring a narrow elite may remain nondemocratic, and, in turn, continue to maintain such economic institutions and generate high levels of inequality, whereas other societies may transfer to democracy and choose more egalitarian economic institutions.”¹⁶⁰ In accordance with this research and as analyzed in the previous chapter of this thesis, democracy or the participation of a broad segment of the population in the political field might be key to the development of public education.¹⁶¹ Second, opportunities for a broad part of the population to economic access lead to a more developed and diversified commercial system and vice versa. The diversity of the commercial system naturally stimulates the necessity to skill and educate the population to carry out specialized professions.¹⁶²

Following from the combination of these theories, the main hypothesis of this chapter is that in the cases, where the economy was diversified and complex and where the population had access to trade, markets and other economic institutions, education arose earlier and to a greater extent.

time “there was probably a premium on broad participation in commercial activity”. p. 205. See also: D.C. North, *Institutions, institutional change and economic performance*, (New York 1990).

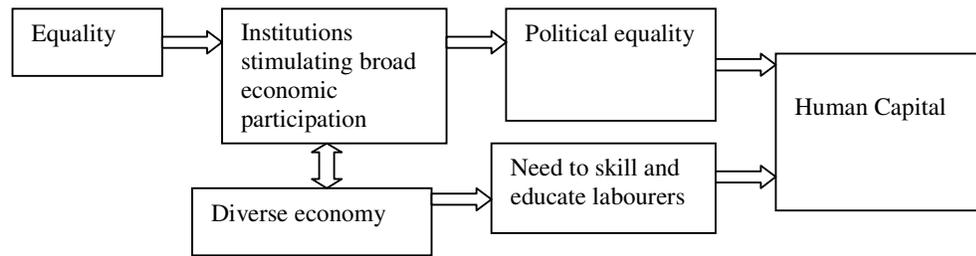
¹⁵⁹ Authors concerned with the effect of inequality on public education are for example: S.L. Engerman, E. Mariscal, K.L. Sokoloff, *Schooling, suffrage and the Persistence of Inequality in the Americas, 1800-1945* (unpublished manuscript UCLA 1998).

¹⁶⁰ D.Acemoglu, J.A.Robinson, *Economic origins of dictatorship and democracy* (Cambridge 2006), p.316.

¹⁶¹ D.C. North, *Institutions, institutional change and economic performance*, (New York 1990).

¹⁶² See for this line of reasoning for example: D.Acemoglu, S. Johnson, J. Robinson, ‘ The rise of Europe: Atlantic trade, institutional change, and economic growth’, *American Economic Review*, pp.546-580.

FIGURE 3 – Structure of economic opportunities argument



To examine this hypothesis it is necessary to define the concepts of economic structure and institutions and to select a few essential elements that characterize the New World economies. When discussing the cases of the Americas, first the variety and complexity of the market will be examined. This is important for the reason that a more developed commercial system can lead to opportunities for the population to be involved into economic activity and creates the need for specialization ultimately resulting in the need for education. Secondly, since trade was the core of the economic structure of the colonial Americas, the openness of the trading system will be analyzed. Openness of trade might also provide a basis for economic opportunities for individuals in society, since it stimulates commerce, entrepreneurship and international exchange of goods and intellectual heritage.¹⁶³

Trade and commerce in the North American colonies

From early settlement onwards a varied economy was established within the northeastern colonies. Although society was initially mainly based on self-subsistence grain agriculture and hog farming, commercial markets were present during the seventeenth century and developed throughout the eighteenth century. Two characteristics of the expansion of the colonies were responsible for market development. First, the emergence of more towns within the colonies, especially on the eastern coastline, provided for a growing internal commercial system.¹⁶⁴ Second, the growth of the export markets to Europe and other colonial regions was important for economic development.¹⁶⁵

¹⁶³ The factor of ‘openness of trade’ is derived from an article by J.Gerring and J.Mahoney on their future research project on colonialism funded by the National Science Foundation. They divide ‘openness of trade’ in five categories: 1. all foreign trade expressly forbidden and strictly enforced. 2. trade permitted only through a few entrepot trading centers and strictly limited, 3. trade within the confines of the empire, strictly enforced, 4. trade within the confines of an empire, not strictly enforced, 5. trade with all parties allowed.

¹⁶⁴ Urbanization as an important aspect of economic growth see for example the work of K. Hoff, ‘Paths of institutional development: a view from economic history’, *The World Bank Research Observer*, vol. 18, iss. 2.

¹⁶⁵ Both arguments are put forward by: R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992), J. Lang, *Conquest and commerce* (New York 1975), p. 77.

During the eighteenth century commerce was based on the export of wheat, pickled meat and on fishing and whaling, the latter being an enterprise dominant in the New England region. As shown in table 11, The West Indies and (southern) Europe were the principal export markets and as colonial trading took a flight during the eighteenth century, assets supplied to the North American mainland from these regions were sugar, molasses (which could be distilled into rum), cocoa, coffee and mahogany.¹⁶⁶ Timber was exported as well to the West Indies and provided for an important impulse to domestic industry in the northern colonies since it demanded the construction and use of water powered mills.¹⁶⁷

TABLE 11: Percentage distributions of the average annual regional exports, 1768-1772¹⁶⁸

Exporting region	Great Britain	Southern Europe	West Indies	Africa	North America*	Total
New England	18	15	63	4	-	100
Middle Colonies	23	35	42	0	-	100
Upper South	82	9	9	0	-	100
Lower South	72	10	18	0	-	100
West Indies	87	0	0	0	13	100

* Exports from North American mainland colonies to other mainland colonies are not measured and therefore not included in this table.

Although agriculture remained the dominant element of economy in the North American mainland until the break of the Industrial Revolution, as is demonstrated in table 4, commercial activities provided employment for a broad part of the North American colonial inhabitants. Shipbuilding, manufacturing, sailing and fishing, storing goods and distributing them were all efforts necessary to maintain and develop the international and domestic market and thus required a broad part of the population to engage in commercial activities. A skilled and educated labour force was especially necessary in industrial employment such as manufacturing, smelting iron and producing metals.¹⁶⁹ Moreover, as the standard of living improved during the eighteenth and nineteenth century, specialized manufacturing industries such as a clock and cabinetmaking, pottery and glass were established which stimulated commercial activity and the necessity to educate and skill the labour force even more.¹⁷⁰

¹⁶⁶ For more information on exact trading numbers and figures see: R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992).

¹⁶⁷ *Ibid.* p. 120.

¹⁶⁸ Source: McCusker, Menard, *The Economy of British America*, p.108, 130, 160, 175, 199.

¹⁶⁹ D. Vickers, 'The Northern colonies: economy and society, 1600-1775, in: S.L. Engerman, R. E. Gallman, *The Cambridge economic history of the United States, volume 1: the colonial era* (Cambridge 1996), pp. 209-218.

¹⁷⁰ T. Weiss, 'Economic growth before 1860: Revised conjectures', in: T. Weiss, D. Schaefer eds., *American economic development in historical perspective* (Stanford 1994); on improvement of the standard of living, see: R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992)

TABLE 12: Composition of non-human wealth, 1774¹⁷¹

	Thirteen Colonies		New England	
Category	S per capita*	%	S per capita*	%
Total	37.4	100.0	36.4	100.0
Land	25.6	68.4	26.1	71.1
Producers' Capital:				
Livestock	4.3	11.5	2.8	7.7
Nonfarm business equipment	0.2	0.5	0.4	1.1
Crops	1.3	3.5	0.2	0.5
Nonfarm business inventory	0.7	1.9	1.0	2.7
Other	1.6	4.3	1.7	4.7
Consumers' goods	3.7	9.9	4.4	12.1

The broader system through which the trading enterprise was organized is nowadays referred to as the so-called mercantilist system. This system mainly consisted of a set of navigation laws imposed in the middle of the seventeenth century in order to enhance the dominant position of the English motherland in colonial trade. The colonial merchants could relatively easily enter into the trading business and the system provided beneficial aspects of protection.¹⁷² It firstly created a protected market for colonial goods, since foreign merchants were excluded from trade with Britain. In addition colonists were able to obtain insurance from British organizations and benefited from lower transportation costs.¹⁷³ Moreover, the colonial merchants were often protected by the British navy, which could be useful for the trading enterprises in times of warfare up till the period of the war on American independence.¹⁷⁴

Although the mercantilist system was set up to be complementary to the British trading network and in that respect to be very strict in allowing foreign trade, this ideal did not work out entirely. Although obviously no records are held of smuggling activities during the colonial era, there is consensus that contraband occurred on large scale especially within the West Indies trade.¹⁷⁵ While the English objective held that trade was confined to the borders of the British empire, this was practically not strictly enforced and thus a relative openness of trade was present.

¹⁷¹ Source: A.H. Jones, *Wealth of a nation to be* (New York 1980)

¹⁷² J. Lang, *Conquest and commerce* (New York 1975), pp. 152-153.

¹⁷³ Ibid. p. 201.

¹⁷⁴ Ibid. p. 201.

¹⁷⁵ J. Lang, *Conquest and commerce* (New York 1975), pp.156-159.

Trade and commerce in New Spain

Trade between Spain, the Spanish colonies and other parts of the world was initially based on a strict monopoly position of the Spanish crown. The in the early sixteenth century established *Casa de Contratación*, or trade house, was responsible for the control of trade with the Indies. It collected taxes, or so-called *avería*, licensed ships and merchants and enforced rules concerning the trading enterprise.¹⁷⁶ One of the most characteristic aspects of the protective rules the *Casa* imposed was for example the fact that all ships returning from foreign areas were obliged to disembark in Seville (later taken over by Cadiz) in order to register the value of the imports, most notably of the silver inflow.¹⁷⁷

To furthermore enhance this monopoly position in international trade and in order to protect the silver shipments, the so-called *flota* system was established. Two armed royal convoys were dispatched annually to transfer the silver treasuries from the colonies to Spain.¹⁷⁸ This *flota* system imposed strict barriers on trading procedures. All profits were directed to the Spanish crown, solely *peninsulares*' merchants from Castile were allowed to participate in the trade and exports had to be transferred on Spanish ships manned with Spanish sailors.¹⁷⁹ Solely one major export harbour was used in the Mexican area of New Spain, namely the port of Veracruz.¹⁸⁰

Moreover, since the Spanish crown emphasized the protection of its own goods, certain restrictions were imposed on the production of goods destined for domestic use in the colonies as well, such as the prohibition of the manufacturing of wine and oil in New Spain. This strict manner of imposing rules on manufacturing and trade virtually put a brake on the development of the diversity of colonial commercial life.¹⁸¹ Openness of trade and promotion of internal commercial activity were in this respect thus evidently modest in the earliest centuries of New Spain, even as the size of trade increased substantially.

TABLE 13: The decline of silver imports in Spain¹⁸²

Years	Total treasury imports of silver*	Registered private silver*
1591-1595	35.1	25.1
1601-1605	24.4	17.8
1631-1635	17.1	12.3
1646-1650	1.6	10.1
1656-1660	0.7	2.7

* Measured in millions of pesos.

¹⁷⁶ J. Lang, *Conquest and commerce* (New York 1975) p.47.

¹⁷⁷ Ibid. p. 47.

¹⁷⁸ A. Maddison, *Contours of the world economy* (Oxford 2007) p. 92.

¹⁷⁹ J. Lang, *Conquest and commerce* (New York 1975) p. 47

¹⁸⁰ Other harbours under Spanish jurisdiction were Portobello in present-day Panama and Cartagena in present-day Colombia.

¹⁸¹ A. Maddison, *Contours of the world economy* (Oxford 2007) p.92-93.

¹⁸² J. Lang, *Conquest and commerce* (New York 1975), p. 53.

It is emphasized by historians nowadays that the expansion of Spanish trade during the sixteenth century was not enhanced by a growing Spanish economy, but by the growing role of Spain as 'middle man' in between colonial America and Europe. Re-exports of non-Spanish goods such as French textiles via Spain were virtually always bigger than the export of Spanish products to colonial America, such as olive oil, iron manufactures, wine and cloth.¹⁸³ As the Spanish power declined at the start of the seventeenth century, Spain's economy stagnated due to a series of circumstances such as misrule and defeats in warfare.¹⁸⁴ As demonstrated in table 13 silver output declined dramatically during this period, but maintained from the late seventeenth century onwards its position as important colonial export product. The growth of the New Spain economy and industry was however not affected to the same extent by the stagnation of the Spanish trade as the mainland economy. Some authors even suggest that this loosening of tight Spanish control was an outright opportunity for the colonies to develop.¹⁸⁵ As silver output declined, other colonial goods such as cochineal, other dyestuffs, sugar, leather and hides were increasingly exported as well.¹⁸⁶ Trade between the colonies and Northern European countries increased, although still under conditions of contraband. Local industries developed and the colonial elite took over a substantial part of the royal profits.¹⁸⁷

This relatively new openness of trade expanded especially when the so-called Bourbon reforms were introduced in New Spain. To compete with the growing dominance of the British naval power in trading with the American colonies, the Bourbon reformers clearly pursued a system of open trade, or *comercio libre*.¹⁸⁸ The *flota* system was abolished and new ports acquired access to the Hispanic commercial sphere.¹⁸⁹ Although these reforms were initially a manner to control the trading enterprise and to compete with the British powers, it ultimately stimulated commercial activity. Estimates are that the total value of the trade with Spanish America and Spain was multiplied by 700 percent between 1778 and 1788 and as table 11 shows other industries than the mining industries provided products for intraregional and extraregional markets.¹⁹⁰

¹⁸³ A. Maddison, *Contours of the world economy* (Oxford 2007), p. 92.

¹⁸⁴ On the decline of the trading power of Spain, see: J. Lang, pp. 51-67. Much work has been spent on this issue of the decline of Spanish power, politically as well as economically. Some explanations for its decline are: the decline of population growth due to plagues and hunger, the costly and inefficient administrative efforts of the colonies, the reign of Charles II, and the great defeats in warfare. See for example: J. Lynch, vol. 2 pp.170-173.

¹⁸⁵ Authors such as J. Lang and Bulmer-Thomas have substantiated to this theory.

¹⁸⁶ J. Lynch, *Spain under the Hapsburgs, vol. 1: empire and absolutism*, (Oxford 1969), pp. 115-144.

¹⁸⁷ A. Maddison, *Contours of the world economy* (Oxford 2007), p. 93.

¹⁸⁸ J. Lang, *Conquest and commerce* (New York 1975), pp. 69-83.

¹⁸⁹ J. Lang, *Conquest and commerce* (New York 1975), p.74.

¹⁹⁰ C.H. Haring, *The Spanish Empire in America* (New York 1947), p. 342. J.Lynch, *Spanish colonial administration* (Oxford 1981), p. 169.

TABLE 14: Extraregional and intraregional trade at the end of the colonial era¹⁹¹

Area	Region	Products	Extraregional market	Intraregional market
Mexico	Central	Sugar, textiles		X
	Oaxaca	Grain	X	X
	Yucatán	Indigo	X	X
	North	Cattle, textiles		X
	North	Silver	X	
Central America, the Caribbean	El Salvador	Indigo	X	X
	Honduras	Silver	X	
	Costa Rica	Tobacco		X
	Antilles	Sugar	X	
Venezuela	Coast	Cacao	X	X
	Plains	Hides	X	X
Colombia	Eastern highlands	Gold, silver	X	
Ecuador	Highlands	Textiles		X
	Coast	Cacao	X	X
Peru, Bolivia	Highlands	Silver	X	
	Highlands	Mercury		X
	North Coast	Sugar		X
	South Coast	Cotton		X
Chile	North	Silver	X	
	Central	Wheat	X	X
Argentina, Paraguay, Uruguay	North and Central	Artisan products		X
	Cuyo	Wine		X
	Northeast	Yerba maté, cattle		X
	Northeast	Sugar	X	
	Río de la Plata	Tallow, hides	X	
Brazil	Central	Gold, diamonds	X	
	South	Cattle		X
	Amazonia	Forestry	X	

It is important to notice the effects the introduction of *commercio libre* has had on the diversity of commercial activity within New Spain. The major interests of the *almaceneros*, or the great *peninsulares*' merchants, were reduced and the interests of the *Creole* population were advanced by installing new commercial regulations such as the softening of tax burdens. Because of the influx of European products, manufactured goods became cheaper and profits were low. Moreover, individuals were able to directly buy from shipmen, since products were sold on credit.¹⁹² Although it led to political struggles with the older economic elite, the new position of the *Creole* population was a sign of the increasing openness of trade and varied economy, thus the access to economic opportunities had broadened substantially during the last decades of the colonial period.¹⁹³

¹⁹¹ V. Bulmer-Thomas, *The economic history of Latin America since independence* (Cambridge 2003), p. 25.

¹⁹² J. Lang, *Conquest and commerce* (New York 1975), p. 77.

¹⁹³ At this point we can readdress the thesis of Acemoglu, Johnson and Robinson in that the actual 'reversal of fortune' took place in the nineteenth century, however since this chapter mainly discusses the colonial economic structure and economic opportunities during the colonial period. See: D. Acemoglu, S. Johnson, J.A. Robinson, 'Reversal of Fortune: geography and institutions in the making of the modern world income distribution', *Quarterly Journal of Economy*, vol. 117

Trade and commerce in Argentina

The commercial organization of the Río de la Plata and Buenos Aires regions was obviously subjected to the same economic policies as those of the New Spain region. The Spanish crown created a vast monopoly on trade in the Hispanic hemisphere that was dominated by the quest for precious metals. Since these metals were not present in the same amount compared to the regions of New Spain and Peru, the exchange enterprise of domestic Argentinean products was virtually neglected during the sixteenth and seventeenth centuries.¹⁹⁴ However, the Argentinean area did function as an important transfer region for the silver achieved from the Peruvian mines. As accounted for by *Hora*, silver from Potosí accounted for 80 percent of the exports of Río de la Plata, whereas 20 percent was provided by products from the Pampas at the beginning of the nineteenth century.¹⁹⁵

However as transatlantic trade increased over the centuries and warfare between leading European powers led to growing interest in the entire colonial market, the commercial sector of particularly the Buenos Aires region was enriched.¹⁹⁶ In the eighteenth century the urbanized Buenos Aires region came to dominate the surrounding areas and was responsible for the jurisdiction of the Pampas. Conditions providing for this change were varying. First, due to Portuguese expansion in the Brazilian region, the Argentinean markets became intensely connected with the Portuguese and British trade.¹⁹⁷ Another important boost for the uprise of Buenos Aires as commercial center was its growth as a slave port.¹⁹⁸ The French (and later on the British) were allowed by the Spanish king to transfer the slaves via Buenos Aires and along with this business came the contraband exchange of other commodities.¹⁹⁹

One of the major Argentinean export products were cattle hides that could be manufactured into leather, a substantial asset in warfare. The exchange of cattle and hides provided during the eighteenth for a new and important domestic market, for the Pampas were a cheap source and the Buenos Aires *cabildo* claimed monopoly on its products. Although the export of cattle and hides never actually exceeded silver export, the new so-called ‘cattle economy’ was a significant factor in the development of Buenos Aires.²⁰⁰ As within the New Spain region, export to non-Spanish ports meant contraband, however since the Buenos Aires

¹⁹⁴ D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), p. 39

¹⁹⁵ R. Hora, *The landowners of the Argentinean Pampas* (Oxford 2001) pp. 10

¹⁹⁶ *Ibid.*, p. 39.

¹⁹⁷ *Ibid.*, p. 40.

¹⁹⁸ *Ibid.*, p. 42.

¹⁹⁹ The concession to allow this slave transfer to the interior of New Spain existed as an award for Louis XIV’s assistance in supporting the succession of Philip V. The so-called slave *asiento* was later on transferred to Britain as a result of the Treaty of Utrecht in 1713.

²⁰⁰ D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), p. 43.

region was not controlled extensively it enjoyed a significant amount of openness of trade during the eighteenth century.²⁰¹

Moreover, as a more racially and culturally varied group of inhabitants established themselves in the Buenos Aires region, new professions and commercial activities occurred. Buenos Aires became a center of manufacturing handicrafts and education was necessary to train and skill new silversmiths, builders and carpenters.²⁰² This diversifying of the Argentinean economy accelerated even more as the above outlined Bourbon reforms were installed.²⁰³ The Argentinean commerce diversified even more when the Bourbon reforms were put through from the second half of the eighteenth century onwards. The above outlined *commercio libre* found solid ground in Argentina and by 1800 the economic expansion outpaced the monopolistic trading system Spain tried to advance. The Buenos Aires' major export market was to become Britain and Spain had practically placed itself in between Buenos Aires and foreign exchange markets.²⁰⁴

A comparison – economic structures

As explained in the introduction of this chapter, two main criteria of the eventual impacts of economic structure and institutions on the development of human capital are emphasized. First, we assume that access to economic participation by a broad segment of the population was beneficial for the emergence of education. Second, we state that the diversity of the commercial system and the growth of specialized professions create the demand for educated and skilled labourers and thus provides for a stimulus for human capital development. To investigate these two mechanisms, two variables of the colonial economies of the Americas have been highlighted, namely the openness of trade and the development of the commercial system.

When comparing these aspects in the cases at hand one can in first instance establish that transatlantic trade throughout the entire New World hemisphere has experienced a profound change during the colonial period. Spanish policies in New Spain and the Argentinean region provided for an initial emphasis on the silver exports and the quest for precious metals. Since New Spain (and Peru) was more abundant with these natural assets than Argentina, the Argentinean area virtually functioned as an important transfer harbor for silver and trade of domestic products did not emerge to a great extent. However, as the Spanish crown tried to obtain a monopoly position within the silver export, there was few

²⁰¹ J. Lang, *Conquest and commerce* (New York 1975), p. 66.

²⁰² D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), p. 44.

²⁰³ As already described in chapter 3, the present-day area of Argentina was pronounced to be a new viceroyalty, namely the viceroyalty of the Río de la Plata.

²⁰⁴ J. Lang, *Conquest and commerce* (New York 1975), p. 81.

openness of trade. Through the so-called *flota* system, the protection of the silver trade was made sure, which had profound side-effects on the control of exchange of other colonial goods. The British policies were also dominated by the ideal of maintaining a dominant position in global trade by the motherland. So-called mercantilism ideally restricted openness of trade to a large extent, however since the navigation acts could not be enforced entirely, contraband was highly present within the North American exchange market.

Furthermore, compared to the Spanish colonies, a more diversified commercial system emerged early on within the North American colonies. While the dominant asset of the domestic market was grain agriculture, industries such as fishing, whaling and the production of timber stimulated the increase of a varied commercial life. This diversity of commercial life was only achieved within the Spanish American areas during the eighteenth century when Spanish political and economic power declined and more emphasis was put upon other commodities instead of on the silver and mining industry alone. The Bourbon reforms initiated an acceleration of diversity of the commercial life. The Buenos Aires region was especially enriched when the Bourbon reforms were implemented and became one of the major centers of commercial activity in the entire New World hemisphere at the break of the independent period.

Access of the population to economic institutions and the need to skill and educate labourers were present earlier on in the North American mainland as opposed to the Latin American countries. Especially diversity of commercial life developed early, however the openness of trade did not differ to a large extent between the various cases. When the Bourbon reforms and the *commercio libre* were installed the New Spain and especially the Buenos Aires regions profited from a new impulse in the variety of the domestic markets. As is demonstrated in table 14, the Argentinean population had a relatively high amount of economic participation when measuring the exports per head in 1850.

TABLE 15: Latin American exports, population and exports per head, circa 1850²⁰⁵

Country	Exports*	Population**	Exports per head*
Argentina	11310	1100	10.3
Bolivia	7500	1374	5.5
Brazil	35850	7230	5.0
Chile	11308	1443	7.8
Colombia	4133	2200	1.9
Costa Rica	1150	101	11.4
Cuba	26333	1186	22.2
Dominican Republic	500	146	3.4
Ecuador	1594	816	2.0
El Salvador	1185	366	3.2
Guatemala	1404	847	1.7
Haiti	4499	938	4.8

²⁰⁵ V. Bulmer-Thomas, *The economic history of Latin America since independence* (Cambridge 2003), p. 37.

Honduras	1125	230	4.9
Mexico	24313	7662	3.2
Nicaragua	1010	274	3.7
Paraguay	451	350	1.3
Peru	7500	2001	3.7
Puerto Rico	6204	495	13.7***
Uruguay	7250	132	54.9
Venezuela	4865	1490	3.3
Latin America	159484	30381	5.2

* In thousands of US dollars.

** In thousands.

*** The figures are for 1844.

To conclude it is important to readdress the theory of the so-called ‘reversal of fortune’ imposed by *Acemoglu, Johnson and Robinson*. Although the differences in economic opportunities between the New World economies have not been as large as perhaps supposed and the GDP per capita was even higher in the Spanish American areas during the first period of colonialism, various authors have suggested that the dominance of the North American economy occurred in the nineteenth century due to the structure of the colonial economies. The theory suggests that the social and economic infrastructure of North America was better suited for the start of the industrial revolution. As *Hoff* has stated: “among the colonies of the Americas, only the United States and Canada provided the social infrastructure – the collection of laws, institutions, and government policies – that made participation in investment and entrepreneurship possible for a broad segment of the population. At the end of the 18th century, the Industrial Revolution generated opportunities whose value depended on broad participation in entrepreneurship, investment and innovation. Thus, a reversal of fortune occurred as the United States and Canada surged ahead of societies in which a large fraction of the population was illiterate, disenfranchised, and without assets to borrow against.”²⁰⁶ As this thesis mainly focuses on the economic structures of the colonial period, this aspect of institutions which initially do not differ extremely between countries, but can ultimately bring about large differences in the development of societies and economies should be taken into account especially when accounting for the emergence of education in the nineteenth century.

²⁰⁶ K. Hoff, ‘Paths of institutional development: a view from economic history’, *The World Bank Research Observer*, vol. 18, iss. 2, p. 208. She also states: “Second, the point in time at which these colonies fell behind was not during the early period of colonialism but at the onset of the Industrial Revolution. In simplest terms, the thesis put forward persuasively in recent work is that the factors that made these European colonies relatively wealthy in 1500, 1600, or 1700 also made possible a colonization strategy that created or perpetuated stark inequalities in wealth and political power – a strategy whose legacy is institutions that made these areas ill-suited for modern economic growth.”

CHAPTER 5 – CULTURAL HERITAGE

*“Religion brought forth prosperity, and the daughter destroyed the mother.”*²⁰⁷

Religion and human capital development

When studying the divergence of wealth and the development of human capital within the New World hemisphere, much emphasis has traditionally been put on the role of the heritage of the colonial motherlands. Within the social and economic field there is consensus on the idea that the institutions initially adopted in the colonies were to a large extent copies from the prevailing institutions in the motherlands.²⁰⁸ Following from this it is expected that they were furthermore greatly influenced by the culture of the colonial motherlands when pursuing their path of development. The impact of religion as an expression of culture and its development on institutions and economic prosperity has been especially stressed within this historical debate.

A provocative theory on the association between religion and economic development is framed by the famous historian *Weber* in the beginning of the twentieth century. He published his essay on ‘The Protestant work ethic and the spirit of capitalism’, in which he argues that the rise of capitalism was promoted by Protestantism.²⁰⁹ His explanation holds that by advocating the doctrine of predestination²¹⁰ within Protestantism an ethic was provided that stimulated “hard work, honesty, seriousness, the thrifty use of money and time”.²¹¹ Although the doctrine of predestination was not a long-lasting determinant of religious life in Protestant countries, *Weber* suggests that it did create a new type of ‘person’, the one prepared to earn his own wealth, and this ‘businessman’ did survive later on in the secular world.²¹²

Although nowadays virtually always perceived as outdated, *Weber’s* theory has had profound influence on other theories connecting religion and socioeconomic questions of economic prosperity and inequality. Authors such as *Guiso, Sapienza* and *Zingales* reason that

²⁰⁷ L.A. Cremin, *American education, volume 1* (New York 1970) p.238.

²⁰⁸ On the adoption and copying of the institutions of the colonial motherland in the colonies, see for example: D. Lal, *Unintended consequences. The impact of factor endowments, culture and politics on long-run economic performance* (Cambridge 1998).

²⁰⁹ M. Weber, S.E.Kalberg ed., *The Protestant work ethic and the spirit of capitalism* (Los Angeles 2002).

²¹⁰ The doctrine of predestination holds that everyone’s destiny is decided in the beginning and no achievement of better deeds or more faith can change that destination, however since the ‘chosen’ ones with good destiny are logically also persons with good character and good behavior, it is better to behave in accordance to a hard working ethic.

²¹¹ This is a direct quote from: D. Landes, *The wealth and poverty of nations: why some are rich and some are so poor* (London 1998), p.175.

²¹² *Ibid.*, p. 175.

religion might be a condition for economic wealth.²¹³ In addition, *Barro and McCleary* have examined the relation between several religions and prosperity.²¹⁴ However, authors such as *Acemoglu, Johnson and Robinson* have established that no direct causal connection can be made between religion and its effects on economic institutions.²¹⁵ An interesting theory when examining the impacts of religion on human capital development is offered by historians *Becker and Woessmann*. They provide an alternative theory to the *Weber* thesis by stressing the impact that Protestantism had on the development of human capital that has made a difference in determining economic growth. In their view Protestantism clearly enhanced educational and literacy levels by advocating the necessity to read the bible. By additionally incorporating education into the church organization it created a basis for human capital that proved to be useful later on as commercial and industrial growth took place.²¹⁶ Moreover, they have successfully tested this thesis by demonstrating that Protestantism led to higher literacy rates by using Prussian cross-county historical evidence.

Considering the New World colonies and the question of inequality, several scholars have maintained that the divergence between the Latin American countries and Northern American countries was partially due to a difference of religious heritage as well.²¹⁷ In contrast to Protestantism, Catholicism provided for a religion which encouraged a high level of hierarchy as opposed to egalitarian structures and it did not actively enhance public education as compared to Protestantism. Moreover, the Catholic Church was a dominant recipient in the distribution of wealth and land in and thus provided for inequality in that manner in the Latin-American countries. The hypothesis of this chapter aims to combine both theories on inequality and on the effects of religion on education in the colonial era, thus in what follows the role of religious heritage within the American hemisphere will be analyzed. The effects Protestantism and Catholicism have had on the degree of inequality in the educational framework during the colonial ages will be emphasized.

²¹³ L.Guiso, P.Sapienza, L.Zingales, 'Does culture affect economic outcomes?', *Journal of Economic Perspectives*, vol. 20, pp. 23–48.

²¹⁴ R.J.Barro, R.M.McCleary, 'Religion and economic growth across countries', *American Sociological Review*, vol. 68, pp. 760–781.

²¹⁵ D.Acemoglu, S.Johnson, J.A.Robinson, 'Institutions as a Fundamental Cause of Long-Run Growth' in: P.Aghion, S.N. Durlauf, eds., *Handbook of Economic Growth, Volume 1A*, (Amsterdam 2005).

²¹⁶ S.O.Becker, L.Woessmann, 'Was Weber wrong? A human capital theory of protestant economic history', *The Quarterly Journal of Economics*, 2009.

²¹⁷ D. Landes, pp. 175-176; Frankema on the 'Latin type of inequality' in: E. Frankema, *The Colonial Origins of Inequality: Exploring the Causes and Consequences of Land Distribution* (Groningen 2006); A. Maddison, *Contours of the world economy* (Oxford 2007).

Protestantism in the North American colonies

*“Colonial North America was not a place where everyone was ‘doomed’ to be free. It was an institutional void. Because it lacked the fixed structures of European societies, people could try out in the wilderness a whole range of ideas and experiments impossible to attempt in Europe.”*²¹⁸

As *Cremin*, amongst others, has advanced, the Protestant religion was brought from early settlement onwards to the North American mainland. A substantial amount of the English settlers were Puritans seeking a new destiny to practice their faith without restrictions from the English government.²¹⁹ This was partly resulting from the fact that serious struggles in the colonial motherland at the end of the sixteenth century had prevented the Puritans from replacing the church government by a so-called ‘Presbyterian’ authority.²²⁰ This Puritan branch of religion is by scholars nowadays viewed as an orthodox and ‘extreme’ category of Protestantism and is assumed to have been significantly important in enhancing education. Within the English mainland, for instance, the age-old universities of Cambridge and Oxford were keen supporters of Puritanism.²²¹ Moreover, in accounting for influences on inequality it can be established that the Puritan religion was within the English motherland a phenomenon connected to the middle-class. As assumed by authors such as *Bowen* “Puritanism was supported chiefly by the mercantile groups which had increasingly been sending their sons to the universities for a general education.”²²²

When Puritanism rooted vastly in the American ground, there were other Protestant branches of religion as well. The so-called Congregational Church was for instance brought to the most Northern part of New England and Calvinist settlements were spread on the coastline of Massachusetts, New Hampshire and Connecticut, even Catholicism was present within the region of Maryland while fleeing from prosecution in Europe.²²³ This mix of different religions prevented the dominant authority of a single church government, and it is assumed that it thus encouraged social equality. However, this common assumption should be nuanced when examining the religious struggles present in seventeenth and eighteenth British North America. The religious complexity was marginalized and real choices concerning religion became limited during colonial times. About 63 percent of the total population of the North-

²¹⁸ M.A. Noll, *Religion and American politics; from the colonial period to the 1980s* (Oxford 1990), p. 23.

²¹⁹ L.A. Cremin, *American Education vol. 1* (New York 1970).

²²⁰ J. Bowen, *A History of Western Education* (London 1981), p. 18. Within Presbyterian government the leadership is spread on a body of clerics and laymen.

²²¹ D.F. Mitch, *The rise of popular literacy in Victorian England: the influence of private choice and public policy* (Philadelphia 1992).

²²² J. Bowen, *A History of Western Education* (London 1981), p.17-18.

²²³ J. Bowen, *A History of Western Education* (London 1981), p. 268.

eastern colonies was connected to the Congregational Church in 1740. The pluralism of religion and thus equal opportunities to choose one's religion re-entered the colonies after the 1740s when the so-called two 'Great Awakenings' disestablished the Congregational Church.²²⁴

However since the majority of the population lived under a form of the Protestant church, the ideal of being able to read the bible applying to all inhabitants of the colonies was present in virtually all communities.²²⁵ The so-called 'use of tongues' was during early establishment seen as a necessary means to challenge the devil's seduction to ignorance. The most famous quotation concerning the ideal of literacy was advanced in the so-called 'Old Deluder Act' in Massachusetts in 1647 and held that: "one chief project of the old deluder, Satan, to keep men from a knowledge of the Scriptures, as in former times by keeping them in an unknown tongue, so in these latter times by persuading from the use of tongues."²²⁶ Although no data are available on the actual amount of schooling and its concentration, mostly because the lines of educational institutions were blurred with the lines of other institutions, it is established that in the colonial period schooling was virtually always tied to the church.²²⁷ It was during the eighteenth century, when education was also purposed to create a national identity that more well-defined schooling institutions were created. It was at that moment of time as well that the influence of religion took less hold on the educational structures and curriculum.²²⁸

Even though it is difficult to examine the actual amount of schooling during the colonial period and to establish in how far education was extended to the population, should be noticed that the Protestant churches encouraged the ideal of human equality, particularly influenced by the ideals of humanism.²²⁹ Although probably mainly due to missionary motives, it is for example interesting that the early settlers opened education to the indigenous population.²³⁰ This ideal of human equality, the encouragement of schooling, in accordance with the fact that during most of the colonial period there was no dominant church hierarchy, provides for the assumption that there was a relatively substantial degree of equality within the North American colonies, which evidently influenced popular education.

²²⁴ M.A. Noll, *Religion and American politics; from the colonial period to the 1980s* (Oxford 1990), p. 21.

²²⁵ L.A. Cremin, *American Education vol. 1* (New York 1970), p. 92.; A. Maddison, *Contours of the world economy* (Oxford 2007), p. 100.

²²⁶ E.W. Knight, C.L. Hall, *Readings in American educational history* (New York 1951), p. 62.

²²⁷ L.A. Cremin, *American Education vol. 1* (New York 1970), p. 93.

²²⁸ J. Bowen, *A History of Western Education* (London 1981), pp. 277-281. It is assumed that via new federal support for education, the newly arisen government turned the new generation into 'republican machines' instead of into pious civilians.

²²⁹ *Ibid.*, p. 280.

²³⁰ L.A. Cremin, *American Education vol. 1* (New York 1970), p. 113.

Catholicism in New Spain

As already established in the second chapter, the Spanish colonists arrived upon a land that was densely populated. The pre-colonial culture of Mexico is nowadays assumed to have been highly developed, often compared to the ancient Greek city-states, especially in the regions where the Aztecs and Incas were settled.²³¹ As Maddison, amongst others, has advanced, Catholic institutions immediately replaced the symbols of the pre-colonial culture such as relics, temples and calendars.²³² The propagation of Catholicism formed initially a substantial part of the ambition of conformity in colonial government and thus it was necessary to wipe out the entire cultural system the Mexican area had known. The Spanish Catholic settlers, supervised by the Spanish crown, were well-suited to undertake this endeavour since they were experienced in fighting the Moors on the Spanish mainland. The Catholic Church had in that event by converting a large share of the population, also played a major role.²³³

Following from the motivation of conquest, the incentives for the establishment of schooling institutions in New Spain were created by the pursuit to evangelize the native population. From initial settlement onwards the church was thus viewed as the 'natural agency' for the provision of education and several specific Catholic orders such as the Jesuits and Dominicans were especially dominant in organizing education. It is important to notice, when valuing the degree of inequality brought on to the educational affairs by the Catholic religion that social inequality was thoroughly present throughout the first century of settlement. The Spanish crown cooperated extensively with the Catholic Church and provided for a hierarchical structure of clerical life. Moreover, the Catholic Church gained grants of land and other economic assets from the Spanish crown and thus contributed in that manner to inequality. An extreme example of how the Catholic Church restricted the freedom of cultural and religious expressions of the population was the 'Holy Office of the Inquisition', which was installed from 1570 and remained until 1819 in order to prosecute all persons with heretical views and ideas.²³⁴ Since the organization of schooling was mainly taken care of by clerical initiatives, educational development correlated with this above outlined pattern of inequality. Most particularly when concerning levels of higher education, schooling was seen as an exceptional luxury only available for the privileged classes and for the clergy, whom the Spanish crown explicitly pointed out.²³⁵

When considering the stage of primary education, however, it is assumed that much effort was put in by the clergy to promote learning for a substantial part of the population. Similar to the ideas of settlers on the North American mainland, the influence of Catholicism

²³¹ S.J. Stein, B.H. Stein, *The colonial heritage of Latin America* (Oxford 1970).

²³² A. Maddison, *Contours of the world economy* (Oxford 2007), p.91

²³³ *Ibid.*, p.91.

²³⁴ M.C. Meyer, W.H. Beezley, eds., *The Oxford history of Mexico* (Oxford 2000) pp.167-168.

²³⁵ J. Bowen, *A History of Western Education* (London 1981), pp. 125-128.

on education was based on missionary endeavours, but that did consequence early on in the provision of education for a large share of the population.²³⁶ Compared to the Protestant faith of the North American colonies, Catholicism was not characterised by the same ideal of human equality. It also did not promote the necessity to be able to read the bible for each and every person, but it merely tried to make all inhabitants familiar with Christianity. Teaching thus focused to a small extent on the learning of the Spanish language, and to a large extent on the explaining of the bible and its stories via paintings.²³⁷ Bowen has furthermore argued that the educational development due to missionary motives were considerably progressive in the fifteenth and sixteenth century, but slowed-down in the following century. This was in his view mainly due to the fact that the Spanish crown emphasized the conservative line of practicing Catholicism while practicing its role as the dominant leader of the Catholic reformation in Europe.²³⁸ This new impulse of conservatism during the seventeenth century accompanied the decrease of missionary movements and thus also the attempt at popular education. Moreover, education was parted into different structures since the Jesuits, one of the main advocates of education, were expelled from Spain during the eighteenth century and started to provide for their own, limited, educational network in the New World.²³⁹

Catholicism in Argentina

Catholicism within Argentina was naturally installed similarly to the colonial organization of New Spain; the Catholic Church knew a strong hierarchical organization and the Spanish crown had dominant power in controlling the administrative and clerical decisions. However, a difference when comparing the early settlement of the Catholic Church to the instalment in New Spain is that within the area of Argentina less indigenous population was present, and thus the need to convert the Indians was less prominent.

Therefore it is often assumed that the development of schooling started later on in the Argentinean region as compared to the New Spanish area. When investigating the religious influence on education within Argentina, it is clear that the domination of the Jesuit order was most particularly important for education. The Jesuit influence reached a peak, as can be observed from Figure 4, during the mid-seventeenth century and at that moment it controlled, next to schooling institutions, large parts of the colonial administration.²⁴⁰ The main aim of Jesuit education was twofold; first it indoctrinated Christianity into the minds of the population and second it prepared young men for a career in government. Jesuit missions for

²³⁶ Ibid., pp.127; D.J. Weber, *The Spanish Frontier in North America* (New Haven 1992).

²³⁷ M.C. Meyer, W.H. Beezley, eds., *The Oxford history of Mexico* (Oxford 2000) pp.160-162.

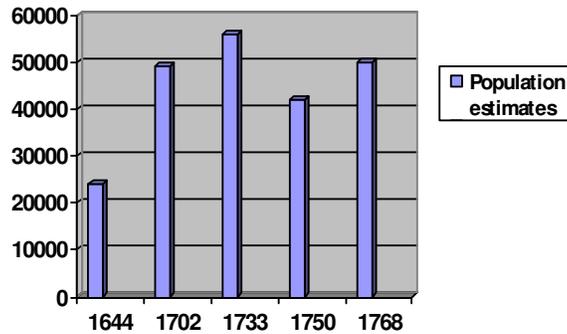
²³⁸ J. Bowen, *A History of Western Education* (London 1981)

²³⁹ Ibid.

²⁴⁰ D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), pp. 49-51.

schooling were thus however mostly directed at the education of small colonial elites and did thus not actually propagate the ideal of human equality through public education.²⁴¹

FIGURE 4 – Population estimates of Jesuit Missions, 1644-1768²⁴²



The effects Jesuits had on education and other colonial institutions wore off during the eighteenth century since, as already outlined above, they were expelled from mainland Spain. However, public education expanded during the mid-eighteenth century until independence in the Argentinean region when stimulated by economic development and growth of urban areas. As the so-called *cabildos* also became interesting in teaching the ‘first letters’ actual public schools emerged by the end of the eighteenth century, however these lost a large part of their religious character at the break of independence.²⁴³

A comparison – cultural influences

The hypothesis concerned with religion in this thesis states that within the countries where Protestantism prevailed, there was more incentive to educate the people in order to be able to read the bible, whereas in areas where Catholicism was dominant, religious hierarchy and royal dominancy prevented the development of public educational systems. The association between Protestantism and Catholicism on educational development in the New World colonies is demonstrated in table 16.

²⁴¹ J. Beech, S. Gvirtz, *Going to school in Latin America* (New York 2008), pp. 6-7.

²⁴² D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986), p.51.

²⁴³ J. Beech, S. Gvirtz, *Going to school in Latin America* (New York 2008), pp. 6-7.

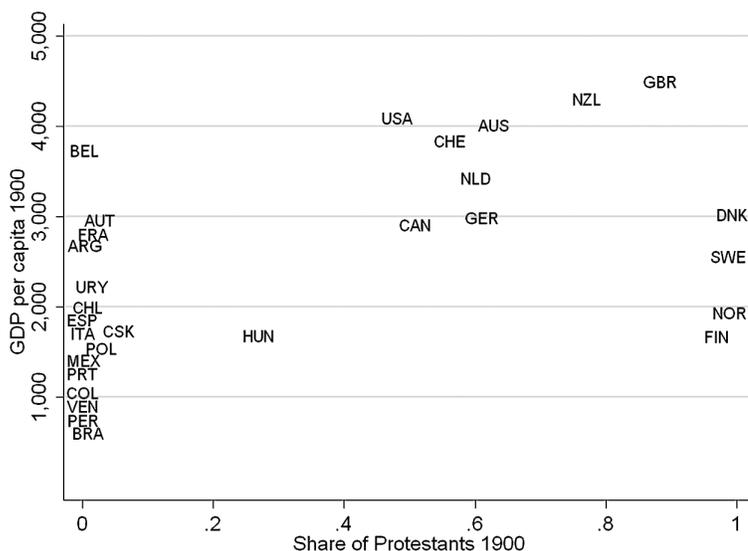
TABLE 16: Religious mix and primary school enrollments, 1880-1882²⁴⁴

	Catholic	Protestant	Other religions	School enrollments*
USA	0.35	0.57	0.08	800
France	0.82	0.02	0.16	780
New Zealand	0.15	0.79	0.06	654
U.K	0.20	0.79	0.01	537
Netherlands	0.36	0.62	0.02	473
Denmark	0	1.00	0	462
Sweden	0	1.00	0	737
Austria	0.91	0.02	0.07	543
Spain	1.00	0	0	517
Belgium	0.98	0.02	0	371
Italy	1.00	0	0	324
Greece	0.01	0	0.99	293
Mexico	1.00	0	0	187
Portugal	1.00	0	0	178
Argentina	0.99	0.01	0	143
Finland	0	0.98	0.02	78
Brazil	0.99	0.01	0	70

* Per 1000 children ages 5-14, enrolment in public schooling.

Via the estimates in Figure 5 we can establish that Protestantism was more conducive for the increase of GDP per capita a century after the colonial period had ended and might thus have enhanced more equality in wealth compared to Catholicism. This figure is thus also to a certain extent in accordance with the *Weber* thesis as outlined in the introductory paragraph.

FIGURE 5 – The share of Protestantism and GDP per capita in a cross-country analysis²⁴⁵



²⁴⁴ P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 1, the story* (Cambridge 2004), pp. 108-109.

²⁴⁵ Source: S.O.Becker, L.Woessmann, 'Was Weber wrong? A human capital theory of protestant economic history', *The Quarterly Journal of Economics*, 2009. p.535.

Following from the thesis by *Becker* and *Woessmann*, as outlined in the introductory paragraph of this chapter, the major aim of this chapter was to establish whether influences of religion on human capital development were present. To be exact, the connection between the influence of religion on the development of public education - thus education subject to an ideal of equality - has been examined. When thus considering the New World societies it is firstly obvious to assert that Protestantism was dominant in the British colonies and Catholicism was dominant in the Spanish colonies of New Spain and the Argentinean region. When comparing both influences it should be noticed that the organization of religion differed profoundly in both regions. Within the Northern hemisphere, religion was brought into the colonies initially as a varying mix of different approaches to Protestantism. There was no dominant colonial authority proclaiming one faith for all inhabitants. Moreover, the British government allowed a vast degree of freedom to the settlers in practicing faith. In contrast, the Catholic Church installed in New Spain and Argentina collaborated extensively with the Spanish crown. Catholicism was one of the central means to convert the indigenous population and to subject them to colonial government. Furthermore, Catholicism knew a strongly hierarchical structure that did not provide for equal opportunities for all concerning religious choices. This is best exemplified by the fact that the Inquisition was installed in New Spain as well to prosecute heretical persons, views and ideas.

When observing the influences religion has had on the development of public education, such structures of inequality should be taken into account. Within the North American colonies the idea of human equality influenced various branches of Protestantism, such as Puritanism and Quakerism and motivated the ideal of popular schooling. This was furthermore enhanced by the idea that every person should be able to read the bible in order to practice faith. Moreover, the absence of one dominant clerical authority for the most part of the colonial period provided for the opportunity to create all sorts of public schooling which were not under direct control. The Spanish colonies knew this ideal of education for all as well. Especially within the Jesuit organization of education it was advocated that all colonial inhabitants should receive schooling, the major motivation being the conversion to Christianity. Within Argentina the idea of public education developed later on, most interestingly so after the Jesuit missions had reached its peak, when the economy developed and the *cabildos* became interested in providing for education. Up till that moment, however, education was mainly aimed at to indoctrinate Christianity and to train the young colonial elite to participate into government. A strong sense of the need to educate all for the sake of equality was thus not present.

CHAPTER 6 – CONCLUSIONS

The goal and innovative aspect of this study is to not simply list a set of variables that may or may not account for the development of public education, but to combine the currently ongoing inequality debate with the question of educational development. Following from this, the set of variables examined in this study are all factors which can account for a specific degree of inequality. The justification for this method of investigation stems partly from the use of the concept of ‘path development’, that is to say that institutions – such as human capital in a broad perspective and education as a basic element thereof – develop according to an initially set pattern. Initial inequality may in that respect strongly affect the development of public education. Moreover, as argued in the introduction chapter the general trend of the history of education focuses on its cultural and political characteristics. In this study, however, other socioeconomic factors and hypotheses concerning inequality and education are examined as well.

Following from this connection between various factors of inequality and public education development, it is important to notice that the cases examined provide for an interesting comparison. The units of analysis of the USA, Mexico and Argentina were all colonized by European hegemonies at approximately the same period of time. They have, however, experienced different paths of socioeconomic and educational development during the colonial era and beyond. As stated in the introduction paragraph on units of analysis, the different paths of development of GDP and GDP per capita have even contributed to the idea that a ‘reversal of fortune’ of wealth has occurred within the American hemisphere.²⁴⁶ When it comes to the question of which countries provided for public primary education by the end of the nineteenth century it is demonstrated by the enrolment rates and literacy rates in table 2 and table 3 that the USA succeeded and holds a so-called ‘positive outcome’. Mexico and Argentina, in contrast, did not provide for public primary education at this same period of time and are thus discussed as the cases holding a ‘negative outcome’.

Following hereof the central hypothesis of this study - *public education, as an institution, only emerges when a relatively low degree of inequality is present within the area of development, whereas public education does not emerge where the initial conditions are subject to a relatively high degree of inequality* - can be tested. As explained within the introduction on methodology, firstly ‘Mill’s joint method of difference and agreement’ is taken into account, in that this thesis aims to contrast cases of success and failure and seeks

²⁴⁶ D. Acemoglu, S. Johnson, J.A. Robinson, ‘Reversal of Fortune: geography and institutions in the making of the modern world income distribution’, *Quarterly Journal of Economy*, vol. 117.

variations in patterns of development. However, the main methodology used to analyse which factors of inequality have prevented the development of public education, is a part of the Boolean method as derived from *Ragin's* comparative method.

A Boolean analysis

In the concluding chapters of each paragraph is established how geographical, political, economic and cultural factors are related to inequality. Some chapters have even provided for hypotheses concerned with direct connections between the different variables and educational development. The aim of this thesis is however to analyse in what way inequality might have prevented education development. In order to analyse in what cases variables have contributed to various degrees of inequality and to analyse how this inequality might have prevented public education, two so-called bastardised Boolean tables are necessary. Since the analysing of the effects inequality might have on public education development has been executed within a modest number of cases, and not within a large-n study, no actual Boolean truth table can be produced. However, the following bastardised Boolean tables offer an overview of the relation between different variables leading up to inequality and inequality preventing public education.

BASTARDISED BOOLEAN TABLE 1 – Variables contributing to inequality

	USA	Mexico	Argentina
I – GEOGRAPHICAL CONDITIONS			
Inequality	0	1	0,5
<i>Land inequality</i> A	low	High	High
<i>Population density</i> B	low	High	Low
II - POLITICAL STRUCTURES			
Inequality	0	1	1
<i>Non-democratic political organization</i> C	low	High	High
<i>Restrictive suffrage laws</i> D	mediocre	High	mediocre
II – ECONOMIC STRUCTURES			
Inequality	0	1	0,5
<i>Restrictive trade</i> E	mediocre	Mediocre	mediocre
<i>Non-developed commercial system</i> F	Low	High	mediocre
III – CULTURAL INFLUENCE			
Inequality	0	0,5	0,5
<i>Religion enhancing education for all not present</i> G	low	Mediocre	mediocre

Deriving from this first bastardised Boolean table, it can be established which factors contributed to the various degrees of inequality. The variables used within the different sections – geographical conditions, political structures, economic structures and cultural influence – are marked in several degrees: high, mediocre and low. Obviously the high levels contribute to a high level of inequality present within the case, whereas a low marking states that a lower level of inequality had developed. Following hereof, the combined degrees of inequality are stylized and listed as 1, 0,5 and 0. Since per factor a degree of inequality is established it can be shown in the next bastardised Boolean table which factors of inequality - geographical conditions, political structures, economic structures or cultural influence – have accounted for thwarting public education developments.

BASTARDISED BOOLEAN TABLE 2 – Does inequality prevent public education?

	USA	Mexico	Argentina
I – GEOGRAPHICAL CONDITIONS			
Inequality	0	1	0,5
II - POLITICAL STRUCTURES			
Inequality	0	1	1
II – ECONOMIC STRUCTURES			
Inequality	0	1	0,5
III – CULTURAL INFLUENCE			
Inequality	0	0,5	0,5
NEGATIVE OUTCOME EDUCATION	0	1	1

By overlooking the degrees of inequality and the outcomes of education within this Boolean table, it can be directly established which factors of inequality were decisive in the prevention of public education development. Since the case of the USA holds a ‘positive outcome’ and does not hold any high degrees of inequality no exact conclusion can be made by observing from that case. It can merely be stated that it is possible that public education develops when a low levels of inequality are present in all factors.

When, on the other hand, comparing the cases of Mexico and Argentina it can be observed that all factors of inequality were important for the prevention of public education development, however the element of the political structures was decisive. This follows from the fact that in both of the cases of Mexico and Argentina a high degree of inequality due to political structures was present and both cases failed in providing for public education. Additionally other factors of inequality – geographical conditions, economic structures and cultural influence – were present in Mexico, but on a lower level in Mexico.

What lessons can be learned?

Following from the Boolean analysis and the concluding paragraphs of each chapter it can firstly be argued that a combination of factors is important for the development of educational systems. When establishing whether factors and high degrees of inequality have prevented the development of public education within the USA, Mexico and Argentina it suffices to state that this was certainly the case within Mexico and Argentina. The factor of political inequality has particularly contributed to the prevention of educational – and in that perspective also human capital – development. One of the issues addressed within the introductory chapter, namely that the development of an institution such as public education is not only subject to political and ideological factors, but also to other socioeconomic elements can thus be partly be confirmed. Although other socioeconomic factors are important, it appears that the factor of political structures on public education development remains most important. For the cases of the USA, Argentina and Mexico it can thus be suggested that inequality through suffrage laws and through the degree of democratization of the political organization eventually had substantial impact on educational development.

Following from this it can be substantiated that further research should be done on the exact connection between political inequality and public education development. Most ideally this research would be employed within a more substantial number of cases across a broad period of time. Moreover, it can be argued from the conclusions drawn from the Boolean analysis in this chapter, that more research is necessary to establish what the exact effects of a lower degree of inequality are on public education development. This idea follows from the fact that in the case of the USA it can only be established that a low degree of inequality is possibly beneficial for public education development. Furthermore, directed towards research in the specific cases of the colonial Americas, it is safe to say that there is still a lively debate going on and that for instance connections between patterns of development in GDP per capita and public education would provide new insights. Additionally, it should be taken into account that the degree of inequality within these countries is still – righteously so - subject to study.²⁴⁷ To conclude, it is once more relevant to state that part of the use of comparative history is to actually learn from research done in order to offer new insights to today's world and policy-makers. Following hereof, it should be stated that more research on both subjects of inequality and education might contribute to the ideals of organizations such as the United Nations. By learning lessons from the past universal education and prosperity for all might even be achieved.

²⁴⁷ I have for instance noticed the essay J.G. Williamson is going to present at the Utrecht World Economic History Congress 2009. He opens the discussion of inequality in Latin America and suggests that 'Historical persistence in Latin American inequality is a myth.' See, *History without evidence, Latin American inequality since 1491*.

LIST OF TABLES AND FIGURES

FIGURE 1 - GDP per Capita: USA, Canada and Latin America 1500 – 1820	8
FIGURE 2 – Structure of land inequality argument	17
FIGURE 3 – Structure of economic opportunities argument	46
FIGURE 4 – Population estimates of Jesuit Missions, 1644-1768	62
FIGURE 5 – The share of Protestantism and GDP per capita in a cross-country analysis	63
TABLE 1: The economies of the Americas, 1500-2001	9
TABLE 2: Students enrolled in public primary schools, per 1000 children of ages 5-14, selected countries 1830-1930	11
TABLE 3: Literacy rates in the Americas 1860-1925	12
TABLE 4: Estimate indigenous population of America at the time of European contact	21
TABLE 5: Landholding in rural regions of Mexico, the United States and Argentina in the early 1900s – in percent	26
TABLE 6: The distribution and composition of population in New World Economies	27
TABLE 7: Qualifications for suffrage in the original thirteen colonies and the new states	33
TABLE 8: Percentages participation by adult white males in presidential elections	34
TABLE 9: The extent of voting in the Americas 1840-1920	38
TABLE 10: Electoral democracy and schooling in 1880	42
TABLE 11: Percentage distributions of the average annual regional exports, 1768-1772	47
TABLE 12: Composition of non-human wealth, 1774	
TABLE 13: The decline of silver imports in Spain	49
TABLE 14: Extraregional and intraregional trade at the end of the colonial era	51
TABLE 15: Latin American exports, population and exports per head, circa 1850	54
TABLE 16: Religious mix and primary school enrollments, 1880-1882	63
BASTARDISED BOOLEAN TABLE 1 – Variables contributing to inequality	66
BASTARDISED BOOLEAN TABLE 2 – Does inequality prevent public education?	67

BIBLIOGRAPHY

- D.Acemoglu, S. Johnson, J.A. Robinson, 'Colonial origins of Comparative Development: An empirical investigation.' *American Economic Review*, vol. 91, iss. 5
- D. Acemoglu, S. Johnson, J.A. Robinson, 'Reversal of Fortune: geography and institutions in the making of the modern world income distribution', *Quarterly Journal of Economy*, vol. 117
- D.Acemoglu, S. Johnson, J. Robinson, 'The rise of Europe: Atlantic trade, institutional change, and economic growth', *American Economic Review*
- D. Acemoglu, J.A. Robinson, *Economic origins of dictatorship and democracy* (Cambridge 2006)
- D. Acemoglu, J.A. Robinson, 'Political losers as a barrier to economic development', *American Economic Review Papers and Proceedings*, vol. 90, iss. 2
- P.Aghion, S.N. Durlauf, eds., *Handbook of Economic Growth, Volume 1A*, (Amsterdam 2005)
- J.P. Aus, 'Conjunctural causation in comparative case-oriented research', *Quality and quantity*, vol. 43, iss. 2
- G. Bannock, R.E. Baxter, D. Evans, *The Penguin dictionary of economics* (London 2003)
- J.A. Barbier, "The culmination of the Bourbon Reforms, 1787-1792", *The Hispanic American Historical Review*, vol. 57, iss. 1
- R.J. Barro, R.M.McCleary, 'Religion and economic growth across countries', *American Sociological Review*, vol. 68
- S.O. Becker, L.Woessmann, 'Was Weber wrong? A human capital theory of protestant economic history', *The Quarterly Journal of Economics*, 2009
- J. Beech, S. Gvirtz, *Going to school in Latin America* (New York 2008)
- L. Bethell, ed., *The Cambridge Economic History of Latin America: 1870 to 1930, vol. 5* (Cambridge 1986)
- J. Bowen, *A History of Western Education* (London 1981)
- V. Bulmer-Thomas, *The economic history of Latin America since independence* (Cambridge 2003)
- J.H. Coatsworth, 'Obstacles to Economic Growth in 19th Century Mexico', *American Historical Review*, vol. 83, iss. 1
- L.A. Cremin, *American Education vol. 1* (New York 1970)
- L.A. Cremin, *American Education vol.2* (New York 1970)
- A. Crosby, *Ecological Imperialism: the biological expansion of Europe 900-1900* (New York 1986)
- S. Ducheyne, 'J.S. Mill's Canons of Induction: From true causes to provisional ones', *History and Philosophy of Logic*, vol. 29, nr. 4, 2008
- K. Duncan, I. Rutledge, *Land and labour in Latin America* (Cambridge 1977)
- R.A. Easterlin, 'Why isn't the whole world developed?', *Journal of Economic History*, vol. 41
- W. Easterly, 'Inequality does cause underdevelopment: insights from a new instrument.', *Journal of development economy*, vol. 84

- T.J. Edwards, *Argentina: a global studies handbook* (Santa Barbara 2008)
- Ellsworth Huntington et al. 'Principles of human geography', *Social Forces*, vol. 13, iss. 1 (1935)
- S.L. Engerman, E. Mariscal, K.L. Sokoloff, *Schooling, suffrage and the Persistence of Inequality in the Americas, 1800-1945* (unpublished manuscript UCLA 1998)
- S.L. Engerman, R. E. Gallman, *The Cambridge economic history of the United States, volume 1: the colonial era* (Cambridge 1996)
- S.L. Engerman, K.L. Sokoloff, 'Factor Endowments, Inequality and Paths of Development among New World Economies', *Economia*, vol. 3, iss. 1
- S.L. Engerman, K.L. Sokoloff, "The evolution of suffrage institutions in the New World", *The Journal of Economic History*, vol. 65, iss. 4
- E. Frankema, *The Colonial Origins of Inequality: Exploring the Causes and Consequences of Land Distribution* (Groningen 2006)
- O. Galor et al., *Land inequality and the emergence of human capital promoting institutions* (working paper 2006)
- A. Green, *Education and the state* (Princeton 1993).
- L.Guiso, P.Sapienza, L.Zingales, 'Does culture affect economic outcomes?', *Journal of Economic Perspectives*, vol. 20
- J.L. Gallup, J.D. Sachs, A.D. Mellinger, 'Geography and Economic Development', *International Regional Science Review*, vol. 22, iss. 2.
- S. Haber ed., *How Latin America fell behind* (Stanford 1997)
- H. Handelman, *Mexican politics: the dynamics of change* (New York 1997)
- C.H. Haring, *The Spanish Empire in America* (New York 1947)
- K. Hoff, 'Paths of institutional development: a view from economic history', *The World Bank Research Observer*, vol. 18, iss. 2
- R. Hora, *The landowners of the Argentinean Pampas* (Oxford 2001)
- J.I. Israel, *Race, class and politics in colonial Mexico 1610-1670* (Oxford 1975)
- N.H. Jie, J. Junn, B. Stehlik, *Education and democratic citizenship in America* (Chicago 1996)
- A.H. Jones, *Wealth of a nation to be* (New York 1980)
- A. Keyssar, *The right to vote: the contested history of democracy in the United States* (New York 2000)
- E.W. Knight, C.L. Hall, *Readings in American educational history* (New York 1951)
- D. Lal, *Unintended consequences. The impact of factor endowments, culture and politics on long-run economic performance* (Cambridge 1998)
- D.S. Landes, *The Wealth and Poverty of Nations* (London 2007)
- J. Lang, *Conquest and commerce* (New York 1975)

- B. van Leeuwen, *Human Capital and Economic Growth in India, Indonesia and Japan, A Quantitative Analysis, 1890-2000* (Utrecht 2007)
- P.H. Lindert, *Growing Public: social spending and economic growth since the eighteenth century, volume 1, the story* (Cambridge 2004)
- P.H. Lindert, *Growing Public: social spending and economic growth since 1800, volume 2* (Cambridge 2004)
- J. Lockhart, S.B. Schwartz, *Early Latin America* (New York 1983)
- D.S. Lovejoy, *The Glorious Revolution in America* (New York 1972)
- J. Lynch, *Spain under the Hapsburgs: vol. 2 Spain and America 1598-1700* (London 1981)
- A. Maddison, *The World Economy: Historical Statistics* (Paris 2003), p. 114
- J. Mahoney, D. Rueschemeyer, *Comparative Historical Analysis in the Social Sciences* (Cambridge 2003)
- R.P. McCormick, "New perspectives on Jacksonian politics", *American Historical Review*, vol. 65, iss. 2
- M.C. McGuire, M. Olson, "The economics of autocracy and majority rule: the invisible hand and the use of force.", *Journal of Economic Literature*, vol. 34, iss. 4
- C. Menard, *Institutions, contracts and organizations* (Cheltenham 2000)
- M.C. Meyer, W.H. Beezley, *The Oxford History of Mexico*, (Oxford 2000)
- R. Middleton, *Colonial America a history, 1607-1760* (Cambridge 1992)
- D. Mitch, 'Education and economic growth in historical perspective', EH.net Encyclopedia, see: <http://eh.net/encyclopedia/article/mitch.education>.
- M.A. Noll, *Religion and American politics; from the colonial period to the 1980s* (Oxford 1990)
- D.C. North, *Institutions, institutional change and economic performance*, (New York 1990)
- D.C. North, W. Summerhill, B. Weingast, *Order, Disorder and Economic Change* (unpublished manuscript)
- H.B. Parkes, *A history of Mexico* (London 1960)
- T. Persson, G. Roland, G. Tabellini, 'Is inequality harmful for growth?', *American Economic Review*, vol. 84, iss. 3
- K. Pomeranz, *The Great Divergence: China, Europe and the making of the modern world economy* (Princeton 2000)
- K.H. Porter, *A history of suffrage in the United States, 1850-1870* (Chicago 1918)
- E. Posada-Carbo ed., *Elections before democracy: the history of elections in Europe and Latin America* (New York 1996)
- C. Ragin, *The comparative method* (Berkeley 1989)
- D. Rock, *Argentina 1516-1987: From Spanish colonization to the Falklands war and Alfonsín* (London 1986)

- T.W. Schultz, 'Capital formation by education', *Journal of Political Economy*, vol. 68, iss. 6
- T. Skocpol, *Vision and method in historical sociology* (Cambridge 1984)
- K.L. Sokoloff, S.L. Engerman, 'Institutions, Factor Endowments, and Paths of Development in the New World', *Journal of Economic Perspectives*, vol. 14, 2000
- K.L. Sokoloff and B. Zorina Kahn, 'The democratization of invention during early industrialization: evidence from the United States, 1790-1846', *Journal of Economic History*, vol. 50, iss.2
- S.J. Stein, B.H. Stein, *The colonial heritage of Latin America* (Oxford 1970)
- C. Tilly, *Big structures, large processes and huge comparisons* (Michigan 1983)
- F.J. Turner, *The frontier in American history*, (New York 1920)
- H. Underwood Faulkner, *American Economic History* (New York 1960)
- D.J. Weber, *The Spanish Frontier in North America* (New Haven 1992).
- M. Weber, S.E. Kalberg ed., *The Protestant work ethic and the spirit of capitalism* (Los Angeles 2002)
- T. Weiss, D. Schaefer eds., *American economic development in historical perspective* (Stanford 1994)
- C. Williamson, *American Suffrage: From property to democracy 1760-1860* (Princeton 1960)
- E. Williamson, *The penguin history of Latin America* (London 1992)
- E.R. Wolf, S. Mintz, 'Haciendas and plantations in Middle America and the Antilles', *Social and Economic Studies*, vol. 4, iss. 3 (1957)

APPENDIX I

Map of the geographical borders of colonial America in 1750.



* Present-day Argentina was incorporated in the so-called 'La Plata' region.