The Finance and Administration Rabbit Hole:
Examining the Demands of Chilean Student Protestors through Henry Levin's Framework on School Choice

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To my family, who pushed me;

To Daniel, who, often comically, taught me about Chilean society and education;

and

To Alex, who patiently endured this process.

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INTRODUCTION

Over the past decade, the education system in Chile has come under fire from some of the people most entrenched within the system: the students. In 2006, during President Michelle Bachelet's first administration, some 700,000 students and protesters took to the streets during what has come to be known as the "Penguin Revolution," to demand the end the voucher system and the *Ley Organica Contitucional de Enseñana* both passed under former dictator Pinochet (Cockrell 2011 and Frens-String 2013). Protests erupted again in 2011 and 2013 when significant changes had not occurred. Led by the student groups FECH and CONFECH, students took over school buildings. The takeovers effectively shut schools and universities down. The protestors occupied these buildings for seven months, and students in municipal schools lost a full school year as a result.

Early in July of 2011, President Sebastián Piñera presented a proposal known as GANE, the *Gran Acuerdo Nacional de Educación,* to appease the students. The proposal created a fund for education, but student leaders rejected it on the grounds that it protected for-profit institutions in education. The protests and school occupations continued. On July 27, 2011 student leaders responded with the "*Bases Para un Acuerdo Social por la Educación Chilena*," where they outlined their demands for the education system in order to make it more equitable and just. They categorize their demands under five "characteristics": free, public, democratic, excellent, and intercultural education (FECH 2012). Equal access to educational opportunities is at the center of these demands. The movement seeks to restructure the administration of primary and secondary education, provide free tertiary education for most students, and remove profiteering from education.

President Piñera announced a new proposal on August 1, 2011, that was again rejected by the students, and a third and final proposal on August 18. However the protests continued. Students felt that not all of their concerns had been addressed, and refused to back down. Since the *tomas* or school take-overs, different policies addressing some of the students' concerns have been passed, and Michelle Bachelet was elected for a second term. She has laid out a plan that closely aligns with the *Acuerdo Social*, although it does not follow it exactly.

These demands emerge in response to three decades of an increasingly economically segregated school system and society. Despite strong economic growth in Chile, with strong businesses, stable government, open economic policies, and beckoning investment opportunities, Chile's education system has not improved. Chile's academic performance relative to other developed countries remains unchanged from before and after the implementation of the voucher system (Hsieh and Urquiola 2002), but the country is now considered to have "one of the most segregated educational systems in the world" (Kormos 2013).

While the country index of inequality, known as the Gini Coefficient, has improved slightly, Chile hovers around 15th world wide when it comes to inequality (CIA Worldfactbook 2009). The country faces greater inequality than all other OECD countries other than Brazil and South Africa (OECD 2011). Within the school system, the economic segregation of students has become systemic. As Appendix D shows, one's opportunity for employment and salary is affected by one's childhood neighborhood through primary, secondary, and tertiary education. Employment opportunities often depend on the higher education institution, which is determined by college entrance exam scores, which are highly correlated with school type and location. Low-income students typically attend low performing public schools, which high-income students typically attend high performing private schools. It is in this context of dramatic inequality that the students have demanded change.

The values projected through the *Acuerdo Social* mark a clear distinction from those of the dictatorship when the current education system was established. The *Acuerdo Social* is divided into three sections: I. Constitutional Reform; II. Primary and Secondary Education; and III. Higher Education. Within each of section II and III, there are seven policy areas which aim to achieve the five characteristics or priorities mentioned above. While the *Acuerdo Social* has a broad list of demands, I will focus this discussion on the highly politicized issues of finance and administrative oversight in primary and secondary education. Much of the protesting has focused on the financing of higher education, an issue which comprises about half of the *Acuerdo Social.* I hope that my evaluation of finance and administration in primary and secondary education will help inform the discussions on higher education. In this paper, however, I ignore demands for constitutional reform, technical education, physical infrastructure, and the democratization process.

For immediate action with regards to the voucher system, the *Acuerdo Social* calls for the end of profiting from public funds and the end of shared financing of private schools. In the long term, it demands the end of outsourcing to private companies and increasing the overall percentage of the GDP directed towards education. Additionally they would like to take the leadership of the school systems out of the hands of the municipalities and create a separate centralized institution to oversee local districts of schools (FECH 2011).

In this thesis, I will examine whether the proposed policies will deliver the specified priorities of: free, public, and excellent education. As mentioned above, I will not examine the policies aimed towards democratic and intercultural education. Instead, I will focus on the policies directed towards free and public education and address access to high-quality education and the nuances of evaluating whether "excellent" education has been attained.

Under Dictator Pinochet's control from 1973-1990, Chile was an early adopter of a voucher policy for education. This concept and its implementation will be explained further in Chapter Two, but essentially this concept, wherein students may choose which schools they attend and government funding is allocated accordingly, is rooted in market principles. Milton Friedman, the early leader in economics in developing the thought behind school-based voucher systems, believed that creating a free-market environment would lead to more efficient, higher quality schools.

The economist Henry Levin has provided critiques on Friedman's logic and developed a framework by which to evaluate school voucher systems. He contends that voucher programs in education can be used to promote different societal values according to the tools used in implementation. In this thesis, I will use Levin's framework for vouchers in order to evaluate the past, present, and future expectations of the Chilean education system.

Although the student protests have increased national attention paid to issues of educational equality in Chile, the outcomes the students demand will not deliver the results they seek. The students wish to change many aspects of the current educational system, including the financial and administrative structure. Because they have focused on disparate issues and large institutional changes which have little indication of bringing about changes in equity, the reforms will not have the impact hoped for even if they succeed in achieving the outcomes they have asked for. The breadth of their demands will detract from their main goals. Rather than demanding comprehensive and structural education reform, the student movement would have the greatest impact in addressing educational access by changing the incentives embedded within the primary and secondary education systems through policy changes. In particular, improving school choices by directing resources and attracting higher quality teachers to low income areas would instead have the greatest returns to their efforts.

In the following chapter, I will describe the four values that comprise Henry Levin's framework for school choice and highlight the policy tools which align a school choice system to the selected values. I will then examine the voucher system in Chile using this framework. I find that the tools used during the past three decades did not reflect the values at the time, causing many of the problems today. These issues are compounded by the transformation that has taken place in Chile in recent years. In Chapter Three I will discuss these changes that have moved society to push for new values within the education system and has led to such a powerful protest movement.

After establishing the shift that has taken place within the framework that Levin set forth and highlighting the poor use of policy tools historically, I use Chapter Four to challenge the students' efforts to dismantle the current structure of the finance and administration of education in Chile. I assert that students would achieve greater movement towards their goal of equity by not opening new possibilities for error in an area that is unlikely to produce great results even if effectively adjusted.

Finally, I conclude by making four suggestions to the students for their approach to framing their demands for reform. Rather than demanding sweeping reform, I suggest that they focus on the areas which will have the greatest impact. To illustrate the four criteria, I use teacher policy changes as an example.

CHAPTER I

SETTING THE CONTEXT

Recent protests and subsequent policy changes have sought to address the structure of the Chilean education system installed by former military dictator Augusto Pinochet. Both the new policies and student demands seek to ameliorate the economic segregation and educational inequality reinforced by the current education voucher system (Eyzaguirre 2012). The student protestors hold the voucher system in its nature at fault for the tremendous inequality, in part because of for-profit engagement, and at times profiteering, with the government education system that has been permissible in the Chilean education system. They want to move away from a voucher system and disallow for-profit engagement in public education.

In this chapter I will briefly introduce the history and structure of the current Chilean education system. Using Henry Levin's framework on educational vouchers, I will evaluate the voucher system as it was implemented and as it changed in the years following the dictatorship. Levin's framework points to the manner in which the structure and tools of a school choice system based on four contrasting value priorities determine the outcomes of the systems. The tools of implementation should reflect societal—or at least policy-maker—values. I argue that despite the value placed on choice and productive efficiency during the dictatorship, the tools used to maintain the current system did not fully reflect these values and both prevented market competition on school quality and caused the extreme segregation and inequality in Chilean education seen today. These tools include regulations, the structure of finances, and the provision of social services. Rather than vouchers themselves, the tools used to implement the voucher system are at fault for the inequality and segregation.

In the same vein as his neo-liberal economic policies, the dictator Pinochet wanted to privatize and streamline education (Matear 2007). Following logic similar to that set out by Milton Friedman's 1962 essay on school choice, Pinochet implemented an education system that would determine the direction of Chilean education for the next three decades. In 1981, he passed a law which created the largest school choice system in the world (Elacqua et.al. 2008). Through this new system, a voucher from the national government would follow the student, providing government funds to the school of the student's choice. The idea was to create more student choice and to expand the capacity of the school system: students could choose which public school to attend or apply to newly government-subsidized private schools. The subsidies would encourage new schools to open without requiring the government to open schools, and student choice would incentivize schools to improve services.

Behind the idea of vouchers is the concept of improving schools by creating "market" competition for the schools' customers: the students. In theory, because families can choose and would always want to choose the best school for their child, ineffective and inefficient schools would have to improve in order to compete for students or close, leaving only the most efficient (i.e. best) schools.

The Chilean Education System

Within the Chilean context, vouchers supported two out of three types of schools, and applied to about 93% of school aged-children. Public schools were decentralized and became known as municipal schools, as municipalities took over administrative responsibility for schools and were awarded a per-student voucher amount. Until 1981, these schools had covered about 80% of enrollment (Hseih and Urquiola 2002). Municipal schools could also receive additional funding provided by the municipality (Eisenberg 2008). Traditional private schools continued without vouchers, and held a constant share of the educational market, serving about 6-7% of the student population (Meckes and Bascopé 2012). Subsidized private schools, as they will be known in this paper, were private schools that had not charged tuition and were instead subsidized by other funds, most often the Catholic Church. Following the implementation of vouchers, these schools also began to receive a per-student voucher. Private schools which charged tuition continued to operate as before. Most declined the opportunity to receive government funding in favor of continuing to charge tuition, and they continued to serve about 6-7% of the student population. Beginning in 1993, subsidized private schools were allowed to charge additional fees above the voucher amount (Mizala and Romaguera 2000).

An additional element of this voucher program is that municipal schools continued to operate as public schools and could not discriminate among students, while the subsidized schools could select students. As higher achieving students moved to private schools, public schools continued to serve lower achieving, lower income students (Hseih and Urquiola 2006).

Henry Levin's Framework for Educational Vouchers

To understand the consequences of a voucher system structured in this manner, let us turn to Henry Levin and his articles on evaluating educational vouchers: "The Marketplace in Education," by Henry Levin and Clive Belfield (2003) and "A

Comprehensive Framework for Evaluating Educational Vouchers," by Henry Levin (2002). Levin and Belfield remind us that there is no single voucher system, but, instead, various systems made distinct by the different policy instruments used to create them. These policy instruments are determined according to the different values and priorities a society or government holds (Levin and Belfield 2003). To show these differences, they outline four sets of values by which we can evaluate voucher systems: freedom of choice, productive efficiency, equity, and social cohesion. Each of these works in competition with the others. Greater emphasis on one of these priorities can occur only with a loss from another.

Within this framework, Levin and Belfield point to three design tools which can be used as policy instruments to achieve the desired balance among priorities: finance, regulation, and support services. The use of these instruments will determine the structure of the system and the types of outcomes achieved. Unfortunately, the direction of the instruments, and thereby the outcomes of the voucher system, are not always determined by the general population. They explains: "Ultimately, the choice of design features will depend on specific preferences and values as transmitted through democratic institutions….much of the debate over the specifics of educational voucher plans revolves around the political power and preferences of the stakeholders," (Levin and Belfield 2003).

Levin's Framework Applied to the Chilean System

The Chilean education system presents an interesting scenario for analysis. One of the issues of which Levin frequently reminds the reader is that the value of publicly funded education derives from the need of a well-educated, informed public in order for a democracy to continue function and operate. However, this policy was not implemented within the context of a democracy; instead it was implemented under a dictatorship, albeit with interests in creating neo-liberal economic policies and the appearance of having an open society.

While the politics of the Pinochet regime are outside the scope of this essay, the nuances of the balancing act between Pinochet's authoritarian regime and his desire for opening the economy defined the initial structure of this education system. Pinochet was able to implement a nation-wide reform and carry it through because of his autocratic control on power. Rather than a piecemeal experiment, or a limited sample of schools or territory, the change was fully implemented across the country. At the same time, Pinochet's plan focused on opening up market choice and creating space in the system for primary and secondary education for all, a benchmark Chile had not attained at the time.

Pinochet's voucher system reflects the low regulation, market-based system prescribed by Friedman. In his 1962 chapter on "The Role of Government in Education," Friedman proposed a flat voucher, with little oversight, no social supports such as transportation or the dispersion of information, and eligibility at any school which meets the minimum educational requirements. The goal was to maximize choice and economic efficiency in a nearly-free market setting in order to have the best educational institutions rise to the top through selection. In terms of Levin's framework, Milton's proposal has a focus on freedom of choice and productive efficiency at the cost of social cohesion and equity. That said, Levin specifically criticizes Milton's framework for excluding support services. He points out that providing services such as transportation and the dissemination of information directly impacts families' ability to access—and therefore choose—schools (Levin 2002).

Pinochet's education system reflected these priorities and utilized related implementation tools. During this period of de-regulation, private schools faced much lower regulations than public schools and, for instance, had no government-mandated limitation in deciding which students can attend (Hsieh and Quirola, 2006). Friedman would probably have supported the lower regulations, but argued for lowering regulations at all schools. In Chile, however, municipal schools continued to face traditional government regulations.

In addition to these elements, Pinochet also sought to expand the capacity of the education system quickly. In a move to increase the total number of students in schools, the voucher system took the burden off of the state by encouraging private schools to open creating spaces for students and pulling resources into the educational system (Patrinos and Sakellariou, 2011). As with the value of Productive Efficiency, Pinochet aimed to maximize educational results given resource constraints that did not significantly change (Levin 2002).

The only element missing from Friedman's scheme in Chile's system was the ability for families to "top-up" tuition, or pay additional tuition out of pocket. Friedman describes the potential increase of overall resources directed towards education as a result of schools and families contributing external resources to private schools. According to Friedman, these are schools which previously many families would not have attended because they would have paid the full amount of schooling twice, through taxes and tuition, plus any additional resources required by tuition above the tax or voucher level.

In the case of Chile, these schools had not charged tuition, but instead were constrained by the resources of the Church and other organizations providing subsidies. Under the initial structure, traditional private schools were excluded from the voucher system because topping up was not allowed.

Still, resources in education may have increased. With the new government support, many new subsidized private schools opened, and it is possible that these organizations provided additional resources as the funding could be stretched further. The majority of these schools which started up following the reform were run by for-profit businesses, though, which would not have provided additional resources (Matear 2007). Later, following the dictatorship, the new government passed a law permitting "topping up," expanding the freedom of choice as Friedman has described.

The Effect of the Voucher System

The system has had two decided effects: a large shift in enrollment from public municipal schools to subsidized private schools and substantial economic segregation by both school type and school performance (Eisenburg 2008; McEwan 2003). Net enrollment rates improved substantially, and school drop out rates dropped from 8% to 2.7% between 1981 and 1982 (Patrinos and Sakellariou 2011).[1]

Patrinos and Sakellariou (2011) argue that the reform did succeed in improving efficiency and overall enrollment. More than 1000 private schools entered the market, most of them for-profit (Hsieh and Urquiola 2006). However, equity among students and, potentially, quality were sacrificed in the process.

Shift in Enrollment

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[1] Author does not know if this data was collected by the dictatorship and whether it is accurate.

The voucher system incentivized families to move students to subsidized private schools. As mentioned before, the enrollment in traditional private schools remained constant, hovering around 6-7%. However, enrollment in public schools dropped from 78% in 1981 to 50% of students in 2004 (Mizala and Torche 2012). In line with Friedman's prediction, about 28% of the student population moved from public enrollment to private enrollment, bringing total student enrolment in subsidized private schools to 43% of all students (Elacqua et al. 2008).

Researchers believe the movement of students to subsidized private schools occurred for two reasons: a belief that private schools are better (perhaps in part because they typically have more resources) and parents seeking better or similar peers for their children. Because wealthier and higher achieving students with more resources already attended regular private schools, these private schools had the appearance of performing better. This selection bias, wherein the best students are "skimmed" off the top, has given these schools the appearance of better performance. While these schools *may* indeed perform better, their high scores *may* simply be the result of serving high-achieving students. The data on this shows that skimming occurred, but it is unclear from the studies described above whether the schools also performed better. Families believed private schools categorically are better, in part because of this selection bias. Parents wishing their students to be with a "better" or similar peer group took advantage of the choice option to move their students to subsidized private schools.

Economic Segregation

In addition to the mass exodus from municipal schools, schools in Chile have become extremely segregated by student socio-economic status both across schools and among school types. Economists have measured this segregation from many different perspectives. Hsieh and Urquiola (2006) find that the greater the growth of private schools in a *comuna* or local district following 1981, the greater the decline in socioeconomic status of students at municipal schools relative to the average of the *comuna.* This division by socioeconomic status was reinforced by government regulations surrounding these schools. Private voucher schools generally had more students apply than could matriculate, so they chose among students, while public schools could not. With the introduction of top-up fees, families needed additional resources for students to attend subsidized private schools. The top up fees and use of selection tools to choose among the high rates of applicants make selection bias apparent and inevitable (Hsieh and Urquiola 2006). Only wealthier students could apply, and then private schools chose the most competitive of their applicant pool, while municipal schools had to continue to serve all students up to the school's capacity.

By 2010, the poorest 30% and wealthiest 30% of students are found in schools with high segregation and 'hypersegregation,' defined as values of more than 0.5 and 0.6 on the Duncan Index on a scale of 0-1 (Bellei, Valenzuela, and de los Ríos 2010). In 1996, well over 60% of children from families in the bottom half of the income distribution attended public municipal schools, while over 60% of students in the top income decile went to fully private schools (Mizala and Romaguera 2000).

This segregation has had a deep impact on achievement as well. The average score on the standardized achievement test, the SIMCE, for the lowest income quintile of students was 66% of the highest quintile in math and 74% in language in 2003 (Matear 2007).[2]

Differences among regions in Chile also play a part in the unequal distribution of school resources. Among the almost 350 municipalities, there is large variation in size, wealth, and management skills. Wealthier municipalities and municipalities that prioritize education have more resources available to schools (Eisenberg 2008). Larger municipalities allow for economies of scale in the administration, while smaller municipalities may not even have staff dedicated only to education. Additionally about a fourth of municipalities are too small to have more than one school, and therefore were not affected? by the potential of between-schools competition (Carnoy & McEwan, 2003; McEwan & Carnoy, 2000).

Inefficiency in the Voucher System

The voucher system could not operate efficiently with two sets of regulations for the two different school types. Because of the incentives at play, private voucher schools competed for better students rather than raising the quality of the school (Hsieh and Urquiola 2006). Additionally, private schools could recruit better teachers. Teacher earnings are very different among the different types of schools. Both private schools and private voucher schools could offer more competitive compensation packages, while public schools have had little flexibility in this area. Municipal teacher wage negotiations are completely centralized with little to no local school or even local municipal input (Brandt 2010). Private school teachers earn significantly more on average than municipal school teachers (Cabezas et al., 2011 citing Bravo, Peirano, and Falk 2006). According to the *Estatuto Docente*, or Teacher Act, passed in 1991, firing municipal teachers became next to impossible. The act set a minimum salary and a fairly incomprehensible pay scale (Eisenberg 2008).

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[2] The national achievement test, taken after the 2nd, 4th, and 6th grades.

The students in Chile have been feeling the effects of these regulation differences. Akiba, LeTendre, and Scribner (2007) conducted a study of 45 countries whose students took the Trends in International Math and Science Study exam (TIMSS). They found that Chile scored worst overall with regards to equal access to qualified math teachers. Low-income students in Chile had lower access to more highly qualified teachers, based on teachers' years of experience and certification, than low-income students in each of the other 45 countries that participate in TIMSS testing. High-income students are 24.5% more likely to be taught by teachers with math majors and 42.4% more likely to be taught by teachers with math education majors (Akiba, LeTendre, and Scribner 2007).

Additionally, despite the significant drop in enrollment in municipal schools, the number of municipal schools was hardly affected. Municipal schools lost significant resources with the exodus of students because funds follow the student. Yet the schools remained opened, suggesting both that they encountered fewer resources for the same services and that they did not encounter strong incentives to compete for students—at least in order to remain open (Hsieh and Urquiola 2006).

As a result, this transition shifted resources from public schools to subsidized private schools. While municipal schools could receive additional funding from the local municipalities, the amount available has varied significantly by municipality (González, Mizala, and Romaguera 2004). Additionally, the total resources available to schools has increased with the level of privatization of a school (Kormos and Kiddle 2013). The additional funds generated from the “top-up” tuition option have had a major impact on school segregation (Mizala and Romaguera 2004).

Consequences of the Tools Utilized

The results from the voucher system can be directly attributed to the incentives created through the three design tools: finance, regulation, and support services. These tools *mainly* were used to encourage choice and productive efficiency, but not exclusively. In particular, these design tools were not applied evenly too all school settings. Instead, municipal schools and private voucher schools were treated differently. Municipal schools faced much higher regulations and lower financing. Additionally, schools were not clearly held to a baseline expectation of quality, and information about quality was not readily available. As such, schools did not compete on a basis of quality, and did not face a major threat of closing if they did not uphold a certain minimum.

The mixed application of regulations and financing severely limited the ability of municipal schools to compete, and complicated incentives for all voucher schools. Private schools could compete for students, thereby giving the appearance of higher performance whereas in reality, they had recruited higher performing students. Without clear, high standards or open, well-distributed information, private schools could provide lower quality education without facing the consequences of lower enrollment, thereby profiting from cost cutting that also cut quality.

Productive efficiency was valued at the expense of choice as well. Very few support services were included in the plan; services informing families about choice and school performance were limited if existent at all, preventing families from being able to make informed decisions. Studies on school choice in Chile show that parents do not or are unable to take advantage of the choice option, especially lower income parents (Elacqua and Fabrega 2004; Carnoy and McEwan 2003; Chumacero, Gomez, and Paredes 2011; Gallego and Hernando 2009). In a study on factors which contribute to the schools parents choose for their children, Elacqua and Fabrega (2004) found that parents of all socio-economic groups overwhelmingly relied on social networks, above formal and school sources. Over 90% of parents who did not complete the 8th grade and over 80% of parents who completed middle or high school relied on social networks for their school decision. Even parents with higher education relied predominantly on social networks, with close to 70% reporting social networks as their source of information.

Fewer than 40% of all families surveyed even took the SIMCE scores, or the national standardized test, into account. SIMCE scores are difficult to interpret, especially considering the selection bias in schools. It is unclear whether parents do not rely on the SIMCE for this reason, or whether it might serve to reinforce the selection bias for parents who do use it, since schools with stronger students who are stronger prior to attending the school tend to perform better on it (Brandt 2010). Regardless, the test appears to not be a major factor in selecting schools. Because families with higher incomes often have a more highly educated social network with more resources, they are likely to be able to share about higher quality schools. Lower income families with lower educational attainment, on the other hand, will be less likely to be able to share information about stronger schools. Without better access to high quality information about schools, families are limited to their own personal networks, and schools are not forced to compete based on quality.

Additionally, about 65% of families with children at municipal schools chose those schools for "*razones prácticas*," practical reasons, such as location, rather than quality (Elacqua and Fabrega 2004). In the OECD paper, Brandt highlights two other studies, Chumacero, Gomez and Paredes (2008) and Gallego and Hernando (2009), which also suggest that distance plays a major role in the school choice. Without better transportation options, families with fewer resources are extremely limited in their school options, and may not even bother examining schools at a further distance.

Finally, because of the belief that private schools inherently have superior quality, the focus on productive efficiency above choice severely compromised market efficiency. The selection bias influences test scores. Lacking information or training on how to interpret these scores, families may incorrectly believe schools are of higher quality, without taking students' starting level into account. Without open information about the schools, or clear tools and standards for evaluating school quality, schools did not have to compete on the basis of quality.

The Voucher System and Quality

Noticeably absent from Levin's quadrant of priorities are any objectives of academic achievement or education quality. Instead this outcome is presumed to be implicit within each priority. Also unstated is the way in which success on this outcome is identified, in part because it would vary by priority. For example, a high value on productive efficiency might sacrifice small gains in academic achievement for great fiscal savings. Likewise, emphasizing choice may allow for some students to attain higher test scores, but to the detriment of other students, without necessarily expecting an increase in overall average achievement or the achievement of the lowest 20% of students. Do we look at the mean scores over time? The lowest quintile compared to the highest? The lowest scores compared to other countries? Mean scores as compared to other countries?

Studies have found that when controlling for student differences, it remains unclear as to whether the voucher system in Chile has improved educational quality in terms of mean and median performance. Hseih and Urquiola (2006) compared the performance of the median student on the international assessment to other countries between 1970 and 1999 to see if the relative position changed. They found the relative position of Chilean student performance stayed the same or decreased, suggesting that the 1981 system change did not improve educational quality. In her OECD Working Paper on Chilean Schools, Nicola Brandt (2010) discussed several of the studies and outcomes related to changes in educational quality in Chile. According to Brandt, there were no clear difference in performance between public and private schools. The outcomes from different studies are conflicting. Mizala and Romaguera (2000) and Bravo et al. (1999) did not find consistent differences between the school types, while Mizala and Romaguera (2000), Henríquez et al. (2009), Anand et al. (2009) and Sapelli and Vial (2002) and (2005) found that private subsidized schools had a very slight higher achievement. Meanwhile, Carnoy and McEwen (2000) found that the new voucher schools which formed following the 1981 legislation focused on productive efficiency at the cost of quality. As for-profit, and therefore, profit maximizing institutions, the schools reduced costs wherever possible within the given constraints. Because the constraints only required quality in as much as parents responded by taking their children to other schools, these for-profit schools continued to cut costs at the expense of quality. There are differences across studies in determining the effectiveness of these for-profit schools, but there is no clear conclusion of improved quality.

Generally, after controlling for student differences such as socio-economic level and parent education level, the difference in performance between municipal schools and private voucher schools is very small if existent at all. However, as highlighted before from Brandt's working paper (2010), developing a mechanism for parents to meaningfully interpret SIMCE scores is difficult. As studies show, once the results are adjusted for student differences, there are few patterns for school quality, and the outcomes for school quality change significantly (Mizala et al., 2007 in Brandt 2010).

Conclusion

Henry Levin's discussion on voucher policies has provided a framework through which we can evaluate the educational system in Chile. By examining the values undergirding the system and the tools used to implement it, we can better understand the areas of concern to the students.

Because of the structure of the tools utilized, incentives were put in place that did not accurately reflect values of choice and productive efficiency. Without policy tools applied to all schools evenly, the market theory of the voucher system was compromised. In particular, municipal schools were held to different standards than voucher private schools. Private schools were able to "skim" the best students off the top and did not have to provide extra value. The resources of municipal schools were compromised, and without closures, they continued to operate at a lower standard for the very students who need the most support—lower achieving and low-income students. Additionally, without better information and support services, families have not been able to take advantage of school choice, thereby reducing (or potentially even eliminating) the productive efficiency that should have been achieved through parents selecting better schools. Instead families choose schools based on location and their social networks, and municipal schools despite losing enrollment, have not been forced to close.

Some for-profit private schools created cost cutting measures, but this benefitted the companies rather than the school system. While more external resources were brought into the school system and the plan improved overall enrollment, it created a system of segregation, and appears to not have improved overall quality or student outcomes.

Despite student blame on the system of vouchers and the for-profit institutions in education, the policy tools used to implement the voucher system had a much more direct effect on the deep economic segregation. These regulations obscured market competition, through poor reflection of choice and productive efficiency on school quality. Segregation and inequality may not be inherent to vouchers or for-profits operating in the space of education, as the student demands presume. The regulations, financing, and lack of social services, on the other hand, directly contributed to the segregation and inequality.

Nevertheless, students will want change beyond these regulations. As is discussed in the next chapter, societal values have changed. Simply adjusting regulations to better reflect values of choice and efficiency, and reduce inequality, will not be enough. In order to satisfy the student movement, changes will need to move the system towards values of equity and social cohesion.

CHAPTER II

A SHIFT IN VALUES

In the previous section, I examined the Chilean educational voucher system through the lens of Henry Levin's framework on educational vouchers. I looked at the policy tools, which were used in only partial keeping with the values of choice and productive efficiency, and the resulting consequences. The previous section demonstrated that limited implementation of regulations negatively affected both of these values as well as the likelihood of the school marketplace to function as a market. An incomplete commitment to freedom of choice left public but not private schools accountable to more regulations. Additionally, the severe educational segregation appears to correspond with the tools used to implement the voucher system, rather than inherent to the voucher system itself.

As described in the introduction, the educational system has reached a point of crisis. Students are demanding comprehensive changes. I will evaluate the value shift that has led to the current crisis and examine recent policies that have been passed under this political tide. Levin's framework points to the manner in which societal values determine the structure and tools of a school choice. I show that a changing value system and new access to voice within Chilean society has made the tools used for school choice ineffectual and inadequate. Following chapters will explore whether these changes have compromised the system itself.

The Initial Transition to Democracy

As described in chapter 1, the original legislation for the voucher system followed the interest of the dictatorship in creating neoliberal policies, and thereby supported the values of freedom of choice and productive efficiency. Under the dictatorship, the people of Chile had little or no way to safely voice their views. In 1987, just 3 years before the transition to democracy, at a time where dissent was considered "freer" than before, there were over 1000 threats made to public figures, 46 political murders, and 5 communist youth disappeared ("Let Chileans Tread" 1988).

Following the dictatorship, Chile faced a difficult period of re-democratization with many right wing political figures still in power, while a left-leaning coalition government worked to reclaim politics and provide mechanisms for catharsis for the country. In his article, "Irruptions of Memories," Alexander Wilde describes the 1990s as an "arena of deeply divided public discourse," (1999). Despite the freedom from the dictatorship, politicians were tied by high expectations of change from society and the need to make changes in all areas. The new governments considered and took on changes ranging from labor reform to constitutional reform. Wilde explains: "The difficulties in [reforging ties between the government and society] are evident in their handling of popular protests in a range of areas…in which the dictatorship diminished the direct role of the state in favor of market solutions," (Wilde 1999). The new government had to respond to their constituents in all areas where Pinochet had replaced direct government intervention with market competition. However, because government had been largely extracted from those areas, there was not an easy means for response, and frequently the return of government in those areas required a full system change. The people of Chile spoke out through protests and other means, but the new government could not respond swiftly. Additionally, protests occurred in so many different sectors and by so many distinct actors, that there was no single clear voice or issue.

Legislation in the education sector in the early 90's reflected a desire to create stronger social cohesion, but these initial laws did not create regulatory changes that could overcome the trend towards segregation. Examples of clear governmental attempts to address equity and social cohesion included the creation of the P900 law and MECE. The P900 legislation in 1990 sought to support the 900 lowest performing schools in Chile through assistance with facilities, curriculum, and teacher support. MECE and MECE-Rural provided books, support for innovative curricular development, and teacher resource centers in rural areas. These new supports marked a departure from the policies of the dictatorship, and a step towards equity in schooling (Arellano 2001).

Around the same time, the Chilean government passed legislation focused on teacher training and compensation in order to begin to improve teacher quality. In 1991, the government passed the *Estatuto Docente*, which restricted the hiring and firing of teachers, especially in public schools, and established a wage floor. While the wage floor was implemented uniformly, the restrictions on hiring and firing in municipal schools again put a higher burden of regulations on municipal schools. Private schools took to the practice of hiring young teachers and letting them go as they became more expensive, while municipal schools could not remove a teacher even if they were very ineffective (Brandt 2010). This legislation took a step further away from market efficiency, but without improving social cohesion or equity.

A Shift in Values and New Voice

In general, Chilean society and policy leaders slowly attempted to transition policy tools to reflect social cohesion and equity, and to move away from the productive efficiency that Pinochet had prioritized. Outside of education, social values became more and more clearly defined. Awareness and application of social values became increasingly evident throughout policy, civic society, and were even reflected in the structure and design of cities. As an example, in speaking about urbanism in Chile in 2005, Lopez Moya states: "*Es bien sabido que el principal valor social a que se atiene el práctica de urbanismo en nuestro país es el Bien Común….Significa que el interés público, en toda circunstancia, prima por el interés privado*," (Lopez Moya). He goes on to list and describe other values which define the city of Santiago, the public responses to urban policy, and the architecture: values of equal opportunity, security, social participation, equality, and solidarity.

These changes occurred in education as well. However, many of the new policies in education have been ineffective in making any major changes, and frequently did not reflect the values of social cohesion and equity—or were misdirected attempts to build upon those values. By 2006, many sectors of Chilean society had begun to successfully transition from a purely market-based structure to one with more government control. Education, though, had not. As Levin points out, marketplace competition in education is different than other sectors because the shareholders cannot divest themselves of wasteful investments (2003). In education, the "good" is so dispersed that it is hard for the "shareholders," taxpayers in this case, to have relevant or key information regarding waste, and taxpayers cannot simply stop paying their portion of taxes directed towards education. Because they are stuck with this investment regardless, it is also more difficult for citizens to effectively move the government to change.

In 2006, students came together to demand change, marching in what has become known as the Penguin Revolution. The President, Michele Bachelet, responded with the

Consejo Asesor Presidencial para la Calidad de la Educación. This advisory counsel presented two reports in 2006, concluding with a 250 page advisory document. The council focused on replacing the *Ley Orgánica Constitucional de Enseñanza* (LOCE), which was passed on the last day Pinochet was in office, ensuring quality, creating a national governing body for education, and restructuring the financing of education. As a result of these events, LOCE was amended by the *Ley General de Enseñanza* in 2009. Additionally, a law was drafted for the creation of an *Agencia para la Calidad de Educación* and a *Superintendencia de Educación*. Both of these new agencies were approved and began in 2011.

Subvención Escolar Preferencial and Student Selection

However, these new laws did little to change educational outcomes. Legislation in 2008 modified the flat voucher program to incorporate a means-tested voucher, which varies in compensation inversely by income level of the student. This program, the *Subvención Escolar Preferencial* (SEP), increased the voucher amount for low SES students by about 50% and provided extra support for schools with high concentrations of low SES students (Mizala and Torche 2012; Brandt 2010). The program moved additional assistance for students from being school based to being student based. In other words, instead of only directing additional resources such as free lunches to the P900 schools, which might also serve students from other SES groups, the additional funds were allocated by student to whichever schools these students chose to attend. As a result, this program gave students more flexibility with regards to school choice (Mizala and Torche 2012). The legislation also raised the base rate of the voucher amount by 15% in 2008, the first time it has been raised above the rate of inflation (Brandt 2010).

Fortunately, legislation also took steps to change regulations. In order to address the selection process in private voucher schools which had led to selection bias, schools accepting vouchers were no longer allowed to select students, and secondary schools were not allowed to conduct parent interviews (Elacqua et al. 2008). This law was issued as a mandate applying to all schools. As such, it follows the explanation of McDonnell and Elmore (1987) in their description of the purpose behind mandates: "The benefits of mandates sometimes accrue primarily to specific individuals or groups, as for example, when handicapped or disadvantaged students benefit…." In this case, as a mandate for all schools, it took the system in the direction of equity by preventing discrimination against lower-income students or otherwise marginalized students.

However, the other areas of the SEP program described above were implemented through an inducement rather than a mandate. Funds for low SES children were awarded to schools who chose to comply with their new regulations of providing a learning plan and allowing increased government oversight, inversely following the level at which the school performs. Because the SEP program required this additional work and resources to be spent, almost 40% of subsidized private schools opted out of the program (Elacqua and Santos 2013). Inducements are dependent upon capacity and are "most likely to be effective when the capacity exists to produce the things that the policymakers value" (McDonnell and Elmore 1987). In this case, though, schools opted out of the program because the cost of implementing the new expectations would be much higher than the fiscal rewards for taking on the program (Elacqua and Santos 2013).

The changes to the selection system hypothetically should grant some increase in opportunities to low income children and families where there were not opportunities before. However, because proximity is the most frequent factor of school choice by parents in Chile (Chumacero, Gomez, and Paredes 2011) it is unlikely that the law had or will have a large effect on student segregation without a complementary increase in support services. If parents remain unaware of their options and access to different schools, it is unlikely that many changes will happen. Although the effects of these new laws have not yet been conclusively evaluated, the current inequalities within the system are likely to remain unchanged.

Teacher-Related Policies

Concurrent with and following the Penguin Revolution in 2006, the government issued policies aim to attract highly qualified candidates to the teaching profession through a scholarship for students who perform well on the college entrance exam and through a pay increase for high performing graduates and teachers (Meckes and Bascope 2012). However, this policy requires the passage of a significant amount of time before the results can be evaluated.

Growing Dissatisfaction

While the changes appeased the protests of 2006, they did not fulfill expectations. In fact, societal values continued to become more focused on equity and social cohesion following 2006. According the Latin American Popular Opinion Project's (LAPOP) *2012 America's Barometer*, the portion of the population who saw education as Chile's most serious problem rose from 5.1% in 2006 to 9.6% in 2012, and those who selected inequality rose from 4.2% to 9.3% during that same time frame. When asked about the schools in the neighborhood where they live, overall respondents' perception in 2012 of the quality of those schools was lower than that of the respondents in Haiti, Brazil, Peru, and Guatemala. Additionally, the survey shows an interest in the redistribution of wealth. On a question about how a rich and a poor person should be taxed on 100 pesos, 71.8% chose the most redistributive option available, choosing the option which states that the rich person pays 50% and the poor person pays 20% (Pablo Luna et al. 2012).

Not only was there a desire to break with the autocratic regime and transition to a democracy during the 1990's, the cultural shift continued through the 2000's. As shown in the LAPOP surveys, there was a clear shift from 2006 to 2012 towards redistribution and equity. This continued shift towards greater equity drove the protests in 2011. In their own words, the students state that their goals are to achieve free, public, democratic, excellent, and intercultural education. In terms of Levin's framework, the students made clear they value social cohesion and equity above all else. Free and public education speaks to their desire for equity; democratic and intercultural to social cohesion; and, finally, excellent to quality, which had not previously appeared as a clearly stated objective—especially not during the dictatorship.

While mechanisms for the goals may not have been clearly stated initially, university student organizations FECH and CONFECH led the protests in defining their demands in a single document: *Bases para un Acuerdo Social por la Educación Chilena.* This document outlined steps for achieving the five goals listed above.

An article posted August 11, 2011, just two weeks after the student group CONFECH released the *Acuerdo Social* claims to show the Libertarian view of the document. This website is an international "anarchist-communist website managed by a group of delegates from organizations around the world." While the author remains anonymous, I believe her views encapsulate what many of the students believe the value shift reflects:

> La visión de la clase dominante queda clara en lo insatisfactorio que resulta su pronunciamiento sobre los aspectos centrales de lo demandado por el movimiento. El fin al lucro, el fin de la municipalización y el concebir la educación como un derecho social, han sido ideológicamente asumidas por el gobierno en sus respuestas….
>
> De esta manera se intenta desviar la atención, desde las exigencias de cambios estructurales a cambios cosméticos que no toquen el sentido dado a la educación, quedando la democracia exigida en un mero formalismo…. Lo que se rechaza es el empoderamiento de las comunidades y los avances en la disputa de proyecto educativo y social.
>
> El escenario descrito muestra que se comienzan a definir dos bandos en confrontación, por un lado el de los poderosos, más definido y con su proyecto en aplicación desde la esfera privada y el Estado, y por el otro los explotados aún configurándose, impulsados por el auge de la lucha masas y la movilización. (Anarco-comunistas de Chile 2011)

This author sees the conflict as a conflict between two distinct groups. Even though the government has assumed the ideology and values around the student demands, the author asserts that they have only paid lip service to these values. In reality, this division is one between the more powerful with private market interests, and the masses interested in collective action and socially based outcomes. While her analysis is through the lens and language of anarchist-communist ideology, she sees a clear difference in values on both sides of the issue.

Levin's Values and Tools reflected in Student Demands

For immediate action with regards to the voucher system, the students call for the end of profiting from public funds and the end of shared financing of private schools. In the long term, they call for the end of outsourcing to private companies and increasing the overall percentage of the GDP directed towards education. Additionally they would like to take the leadership of the school systems out of the hands of the municipalities and create a separate centralized institution to oversee local districts of schools (FECH 2012).

Two of the students' top priorities are to change the administrative structure and the financing of primary, secondary, and tertiary education which relate directly to the regulatory and financing policy tools that Levin describes. I will examine efficacy of these priorities in the next chapter. Not explored further in the next chapters are their additional priorities. Just within primary and secondary education, the document sets forth changes in regulations related to: the regulation of private voucher schools, better regulation of teaching accreditation and teacher hours, teaching assessments and accredited training. These regulations raise a higher, more even standard for all schools receiving government support, improving market competition, and thereby the system as a whole. They also address quality across the board, making schools and teachers more accountable, and improving access to information on school performance. These changes improve the ability of families to choose good schools, but they also make the system more equitable.

As relates to support services the document includes provisions for free transportation and improvements to school infrastructure as well. Free transportation would create more equity in the system (as well as facilitating school choice). Infrastructure improvements also reflect a value in equity as well as social cohesion through creating safe buildings regardless of income. Two demands which fall outside of the policy tools Levin describes are recognizing student unions and improving technical education. These reach beyond types of tools, but show a deep commitment to social cohesions through demanding democratic representation and providing opportunities for people entering different career fields. Tertiary education has a list of similar expectations. This section also includes provisions for the indigenous populations, a clear indication of inclusion.

Inadequate tools

With the ever-increasing desire for greater equity and social cohesion, the current regulatory and financing tools in Chilean education have clearly become inadequate. Standard equal distributions of vouchers by student attendance, permission for private schools to "top-up", and different rules for public and private schools are outdated. Even the new regulations put in place do not deliver the specified goals. By using the optional inducements to implement the SEP program, schools can opt out of providing additional services to lower income students. Additionally, these new regulations do not address the challenges of neighborhood distribution, transportation, and lack of information. They also have not shown a significant change in quality.

Recent Legislation

Legislation during and after the 2011 protests also do not create the tools necessary to deliver the goals set by the students. By the mid 2000's, Chilean politics had centered enough that Piñera was elected president in 2009 from the *Coalición* party, the party which emerged from the right-wing after the dictatorship. In 2010, additional funds for teacher scholarships were set-aside for high quality teachers entering the profession (Domínguez Águila and Elgueta Ruiz 2013). As the protests gained momentum, Piñera and his administration responded with a series of proposals and legislation. In February of 2011, a law was passed which further modified the *Estatuto Docente*, by creating a retirement plan for teachers, improve resources for directors, and, through the *Plan de Formación de Directores de Excelencia*, provides additional education and training for school leadership.

In July of 2011, President Piñera proposes the first of three national education deals. This deal, the *Gran Acuerdo Nacional por la Educación,* or GANE included an education fund with US $4 Million for scholarships and loans, mechanisms for improving access to universities, and centralizing primary and secondary school administration. In addition, the deal would redefine the different structures in the university system. At the same time, Piñera cautioned that nationalizing all of education would be a mistake (Maltrain Macho 2011).

At this point, the students responded with the *Acuerdo Social* on July 25. On August first, the Minister of Education, Felipe Bulnes introduced a new plan with 21 different points of change. The students and government entered negotiations shortly thereafter, but did not reach an agreement. The government released the third of three proposals on August 18. This plan, which lowered interest rates on student loans, took administration off of all but a few high achieving municipalities, and provided scholarships and loans to the poorest 60% of the population, would be enacted later in August (Pavez 2011). The new law created a body for oversight for the transparency, financing, and quality of school education. This *Superintendencia* and *Agencia de la Calidad* were formed in 2012 (Domínguez Águila and Elgueta Ruiz 2013).

Conclusion

Additional steps were taken, but there is still not a plan for the distribution of information or other tools to create equal access to quality schools. It was not clear to the protestors that low-income students, who were unlikely to travel outside of their neighborhoods, would have access to high quality education.

More than anything, though, the students desire a clear break with the system established under Pinochet. As such, they refuse to accept anything short of their expectations. In particular wish to end the system of vouchers, to stop allowing any for-profit institutions in education, and to create a single centralized office for the oversight and administration of k-12 education as a way to reach their five goals listed above. These plans will be explored further in the next two chapters, but from this chapter, we see that the tools in place are not achieving their new goals. Additionally, the new proposal falls short of their demands. In the next chapters, we will explore whether their demands will actually achieve the desired outcomes, or whether Piñera's warning has some merit.

CHAPTER III

THE ADMINISTRATION AND FINANCING OF PRIMARY AND SECONDARY SCHOOLS

During the school strikes, students defined the structure of the education system they want in the document *Bases para un Acuerdo Social por la educación Chilena*. This document, written in response to Piñera's first education proposal addressing the students, gave the movement a more concrete platform on which to base their demands. In this chapter, I will evaluate two areas of the demands: changes in the administration and in the delivery of finances of primary and secondary education.

As shown in Spanish in Appendix A and in my translation into English in Appendix B, the document outlines the expectations for the creation of a new national educational board that administers and finances the public education system. The students seek to relieve the municipalities of that responsibility and eliminate the current Ministry of Education. Additionally, they want to eliminate the voucher system at least as it involves non-public institutions. They wish to remove the provision of school funding according to student attendance and eliminate vouchers to non-public institutions. In the meantime, as they hope these changes begin to take place, they expect that no new subsidized establishment be created. In the long term, they expect parameters to be established to justify the creation of new schools.

In this chapter, I will explore the consequences of the students' wishes related to administration and the administration of school finances if carried to fruition. Using Levin's analysis of the role of administration and a central governing unit within the portfolio choice model, I will show the relationship between administration, financing, and student outcomes. Finally, I will compare this exploration of the hypothetical consequences of these policy requests to the students' goals in order to determine whether the proposed steps are beneficial in achieving the stated goals. The students confuse the problematic policies with the entities responsible for carrying them out, misappropriating blame for the issues that have arisen. In particular, they blame the municipalities for the poor educational quality, and wish to centralize the administration of education and the finances. They wish to change the system. I will show that the poor policies in place have limited the ability of local municipalities to effectively develop schools.

I argue that changing the structure of the delivery of education through new institutions of finance and administration could distract from the priorities of the movement in the midst of a full system change and introduce unnecessary room for new error. Instead, isolating the effective tools for implementation can begin to deliver the desired outcomes of equity and quality more quickly and with less threat of the distractions of political cycles and the introduction of errors. As part of this analysis, I will use Levin's work to suggest that centralization should take place only when more efficient than local administration.

Chilean School Management as Portfolio Management

In his article "A Framework for Designing Governance in Choice and Portfolio Districts," Henry Levin (2010) outlines the roles and responsibilities of different agencies in a school system which include elements of school choice. As he explains, the structure of administration and financing of schools can play an important role in their success. Levin defines the portfolio management model as a model which "combines choice at the level of students and families with the district intentionally managing the supply of available schools."

With a mixture of public schools, private voucher schools, and private schools, all of which students may choose to attend, Chilean schools could be considered to fall under this idea of portfolio management. Although Levin refers to districts with a mix of zoned public schools and charter schools when speaking of portfolio management, the Chilean system is similar.

In Chile, the voucher private schools, with their public financing but private administration act in a similar way as charter schools. Despite zoning not playing a role in Chile, students who attend public schools tend to attend the school closest to their homes. Moreover, students are specifically pursuing a more active management of school supply, first by preventing the new schools from opening and creating quality standards, and then by making clear rules about when schools may open. However, currently, the lack of active management acts as a significant discrepancy with this model. As mentioned in previous chapters, schools have not been required to close based on quality.

When considering his article from an economic perspective, Levin makes a very important point: that "a key premise of portfolio management is that society cannot depend on unregulated markets to settle on the best balance [of his described district functions]." Portfolio management necessarily assumes that Friedman's assertion about market efficiency in education is not true: that instead schools must be actively managed. Rather than schools being held accountable—and at times closing—in response to family choice, a central office decides whether schools perform according to expectations, and which should close or open.

In his chapter on Portfolio management, Levin looks at the structure of such a district and where different responsibilities lie. Levin focuses on the level at which roles and responsibilities are taken on, rather than the title or structure of each administrative entity. He discusses whether responsibilities be charged to a “Central Governing Unit” (CGU) or to the local schools. In Chile, this CGU changes between the national government and the local municipality, adding an additional layer of complexity. Currently, though, the CGU is seen as the municipality by the public, despite the regulations limiting its ability to govern. Using the students demands of new administrative structures, and the political leaders responses, I will examine how well these demands address the current issues and provide solutions which fulfill the suggestions provided by Levin.

Administration: The Acuerdo Social and the current Presidential Proposal

The *Acuerdo Social* delineates the creation of a New National System of Public Education (SNEP). This new body would take the responsibility of administering education off of the municipalities. It would oversee education financially as well, thereby also removing responsibility from the Ministry of Education (MINEDUC).

The *Acuerdo Social* made three main assumptions related to administration: 1) that the decentralized municipal oversight is the source of much of the current problems; 2) that a separate, centralized institution would be more efficient in managing the educational system; and 3) this centralized institution could simultaneously be decentralized in the delivery of education services. The backbone of these demands is a newly nationally centralized oversight of education. This step would move the system far from the value of choice, since despite their note of a "decentralized character," it would standardize the system across municipalities.

As a response to these demands, the most recent proposal from Bachelet, which moved in draft form from her first administration to Piñera's administration and on to her current administration, outlines the form of the new managing body through new legislation. This law would move the responsibility of managing education fiscally and administratively from the municipalities to a *Consejo Directivo,* or managing Board in each municipality (or across several municipalities when low population size requires) located within a new *Agencia Local*. This *Agencia Local* would be responsible for fiscal and administrative management as well as technical support that currently are provided by MINEDUC. The *Agencia Local* would report to SNEP, the new National System of Public Education described by the students. The managing board would be comprised of the mayor, a representative elected by the parents' association, a representative appointed by the teachers, and then two appointments, one from MINEDUC and one from the Regional Government (GORE). As such, the proposal reflects the desire for the creation of a new governing body, but maintains a decentralized structure of administration.

"Desmunicipalización" **and the reality of the current administration**

The current "municipal" system has some deeply entrenched flaws. There are several advantages to moving the administration of the school system out of the realm of the municipalities. As Eyzaguierre (2012) points out in her article on the process of *desmunicipilización*, creating the National System of Public Education, SNEP, would have some clear benefits. It would allow the new administrative body to focus exclusively on education, benefit from economies of scale, and not fall victim to the local political cycle. Removing the function from the local *alcalde* or mayor would both allow for more long term planning, not based on the election cycle, and prevent education from becoming a political tool (at least on the local level). Additionally, many people see the municipalities as the culprit of the current problems. The 2010 CIDE survey found that only 5.3% and 5.6% of teachers and directors respectively wanted schools to continue to be managed by the municipalities.

However, there are some misplaced assumptions in the belief that the "municipal system" is to blame in its existence as decentralized and led by the mayor. As Eyzaguirre (2012) and Mac-Clure (2010) point out, the current system cannot well be defined as "municipal," despite most Chileans doing so. Eyzaguirre explains that in the current system, the mayor is not entirely responsible, and that "the diffusion of responsibilities across different actors has led to the diffusion of the responsibility of the mayor" (Author's translation). Mac-Clure, a law professor at the University of Chile, pushes further, stating that the current system of educational oversight is hardly "municipal" at all. Instead of placing responsibility with the municipalities, the current system places regulations and "brakes" on the local government's ability to implement local education. In his article, Mac-Clure explains that experts consider the powers of school management given to municipalities to be "'restrictive' and therefore inadequate," (author's translation). These regulations prevent the efficient administration of resources. He points to what he considers the key areas of management outside of financing which includes the hiring, removal, and remuneration of teaching staff.

There are additional regulatory and structural constraints. Currently directors have little say in the selection, evaluation, or remuneration of the teachers at their schools, in contrast with the directors at private schools (Eyzaguierre 2012). Directors themselves tend to be political appointments of the mayor who can only in very rare circumstance ever be removed once in place (Franco 2008). Their job protection is not the result of the municipal structure, but still impedes mayors from making any major changes. In fact 75% of high school principals and 60% of elementary school principals have lifetime appointments. Additionally, 50% of directors of the local municipal departments of education have been appointed indefinitely (Franco 2008). The issue at hand is not the decentralized nature of education administration, or even necessarily the role of the mayor and politics. Instead, the inability of anyone to make personnel changes—except at times through the national government—hampers innovation, reform, and even simply the ability to ensure high-functioning staff.

Further Decentralization instead of Centralization of a decentralized nature

Eyzaguierre (2012) admits that despite the benefits of moving to a more centralized administration mentioned above, the main impetus for change comes from the rejection of the status quo and legacy of the current system, rather than any outcomes this change might bring about. She explains that the majority of politicians, mayors, and experts support a decentralized system. Experts point to the success of other countries such as Finland and Japan in their process of decentralization for localized administration of public education.

Despite the students having called for a more centralized administration of public education in Chile, evidence points to the continuation of a decentralized system with a new format or regulation. Centralizing the administration, even with a focus on providing means of decentralization threatens local autonomy and choice. It also removes responsibility locally for the implementation of a quality system. Indeed, a *more* decentralized structure may have some important benefits. Letelier explains that his research shows that “generically conceived” empirical evidence supports the decentralization of education as a mechanism for delivering higher quality education (2008).

Eyzaguierre (2012) points out that electing the mayor can be a positive aspect of the administration of education. In particular, the elected official is accountable to his constituency. That accountability and democratic election provides some legitimacy. Meanwhile, administering education on a regional or national level will dilute the accountability even further.

Bachelet’s Proposal

Bachelet’s proposal for “desmunicipalización” does maintain a decentralized structure. In reality, the proposed structure does not look very different than the current structure. Appendix C shows an illustrated comparison of the two systems. As shown, the major differences are that technical educational support is filtered through the local agencies instead of coming directly from MINEDUC, the local management of education has a different administrative structure, and local municipalities can no longer add additional resources to public education. Allowing the local agencies to provide technical support may provide more flexibility and autonomy for local schools. Eyzaguierre (2012) reminds us that in better education systems in other countries, the Ministry of Education restricts itself to the design of policies and oversight of the system. In this regard, the policy takes a step in the right direction.

However, it is unclear as to whether the new administrative structure will have much impact. The agencies are still run out of the local municipalities, with the mayor holding an important post, albeit with a more diluted contribution. This structural change has only further diluted the mayor's power, without clearly releasing the obligations of the mayor. In fact, from the illustration in Appendix C, the mayor appears to have an even higher level of accountability with lower agency.

While local input is a great step and important in supporting measures to better reflect the local community the responsibility of each individual remains unclear. Additionally, rather than earning their posts, the executive director, regional appointment, and MINEDUC representative are all political appointees, albeit with limited terms. Letelier (2011) finds a stronger link between mayorial political "connectedness" than political ideology, which suggests that "well-connected" candidates are less subjects to administrative scrutiny by the central government. As such he points to the need for fewer political appointments, rather than more. This connectedness is a common aspect of job acquisition in Chile, and highlights the need for careful management of employee selection based on qualifications rather than "who-you-know."

Additionally, simply the process of transferring all administration to a new system carries significant challenges and problems. It is an enormous undertaking, likely to be rife with unforeseen problems and complications. In describing the announcement to "de-municipalize" the education system, one Chilean journalist, Iván Páez (2014) wrote that the process would "contiene un sin número de complejidades." Iván Páez points out that transferring while still carrying out the current system can present a challenge. However an additional challenge falls in doing this while the state moves from the role as only the provider of the subsidies to a role in which the state understands itself as the "protagonist." Páez points out that part of the original intention of the municipal system, as stated in the 1979 Directiva Presidencial, was precisely to decentralize education and to allow for the *"libertad de enseñanza*" or the freedom of education.

While this author is in clear support of the administrative transition, his support comes from the opportunity to correct the wrongs in the past. In the process of highlighting the questions that would need to be asked, he inadvertently shows the major challenge this would present through his explanation of the need for "*un exhaustivo diagnóstico de las debilidades y fortalezas de lo actual,*" "*la comprensión acerca del rol que deben jugar los actores vinculados*," the transition of teacher to a new employer, a large national campaign, correct incentives and supports, and last not but least, making sure the answers to each of the questions within these categories comply with the values outlined by the students. The questions that arise with regard to the new process and structure are limitless. On this point Eyzaguierre emphasizes that "a large part of the problems of municipal education have no relation with the structure of the institution, and as such a change of jurisdiction would not guarantee a better system if these problems are not remedied," (Authors Translation).

Levin on Administration

The structure of administrative functions can play an important role in the efficacy and efficiency of the delivery of education. However, these benefits occur when paying attention to the appropriate issues within the system. Quoting P.T. Hill et al. (2009), Levin writes: "There are ways to design local governance so that it sustains rather than destroys a portfolio system. But these require careful design, including explicit limitations on board powers." Levin identifies the roles and responsibilities that leadership must address, and analyzes whether individual schools or a central governing unit (CGU, which could be a school board, state agency, or other entity) should assume these responsibilities according to three economic principles: economies of scale, transaction costs, and externalities.

With these principles in mind, Levin argues that districts can intentionally divide these roles most efficiently. This efficiency allows districts to better achieve the four functions listed above. For example, by relegating provision of information to the CGU, parents and individual schools do not have to duplicate efforts by each family going school to school in order to gather basic information. Instead, this information can be provided to parents—and schools with regards to service providers and support organizations—utilizing economies of scale to reduce transaction costs and thereby also improving equity by reaching families that might not be able to afford these transaction costs.

In applying this logic to the current concerns, we can make several observations. First, by having a representative of MINEDUC present on each Local Agency board, municipalities will hopefully be better able to take advantage of economies of scale, by readily receiving standardized information and technical assistance. However, this comes at a great cost, considering that there will need to be a representative available for each of these boards. Additionally, this board can provide a more accessible means to adjudicate disputes, whereas previously disputes often had to go to the level of MINEDUC.

Additionally, rules and procedures are often areas where higher-level development results in benefiting from economies of scale and reducing transaction costs.

Under this category, Levin includes admission policy, accountability, required components, scheduling, testing, hiring, and so forth. However, lacking any local flexibility can create unintended externalities when local situations require different regulations.

One of the major concerns that Levin highlights is the management of supply for professionals within the school system. He states that "Districts need to recruit educational entrepreneurs to initiate new schools and transform existing ones….These roles require resources that go beyond those normally found in conventional and static school districts…."

However, Levin's chapter contains nothing more about the structure of these regulating bodies. He does not express concern about which individuals sit on the board, or whether financing is delivered from the national government or a local board. Instead the focus of the chapter lies with the allocation of different responsibilities. In order to achieve the most efficient process, he looks at who ought to hold the responsibility for curriculum, provision of information, student accounting, personnel requirements, transportation, accountability, and admission decisions or purchasing—all areas which the proposed changes in administration have not addressed. While the *Acuerdo Social* does go on to address some of these areas, the initial demands outlined and the focus of much of the debate has been around the structure of administration, which in many ways is inconsequential. It does not matter which individuals make these decisions or how these offices are structured. Instead it is important that they are made at the right level of government and that the right tools are in place to make them.

The Administration of School Finances

Turning now to the next topic, the major concerns about financing in Chile are three fold: 1) low overall spending; 2) public money directed to for-profit schools; and 3) municipal debt from unreliable school-level budgeting because of voucher reimbursements based on fluctuating student attendance.

Low Overall Spending

The concerns about low overall spending have some legitimacy. Historic spending on education in Chile has been low. In 2007, Chile had lower per pupil spending on secondary education than any OECD country (ABCDE 2010). Still, significant gains have been made. Between 1990 and 2008, public spending on education in Chile rose from 2.6% to 4.8% of GDP. By 2008, overall education spending was higher than Australia, the Czech Republic and Japan, yet each of these countries have better outcomes than Chile (Eyzaguirre 2012).

Additionally, economic studies have shown that outcomes are not directly tied to spending. As Eric Hanushek shows in a 2003 paper on educational spending by country, simply increasing resources directed towards education without changing incentives does not improve student achievement. He is quick to point out that this does *not* mean that resources and spending do not matter; instead spending should be directly related to measures that improve student achievement.

Public money directed to for-profit schools

The second area of concern, which fueled many of the initial protests has to do with profit in education. While much of the rhetoric has more to do with higher education, students also wish to put an end to for-profit institutions receiving public funding for education. Although there are some real concerns around the quality of education provided by for-profit schools, as described in Chapter Two, the effect of these schools on the current system is extremely limited. School administration by private for-profit schools was at its peak in 1990 with 1.9% of students enrolled in this type of school. In 2008, 1.6% of students were enrolled here. While they do turn a profit, the students who attend elect to go to those schools. Additionally, because the schools may be of inferior quality, the students who attend do not gain a competitive edge by their attendance; in other words, they are not going to out-rank public schools students on college entrance exams because of the superior education they have received. With both of those considerations in mind, these schools have a small impact on the full picture of education in Chile. As such, it does not make sense for closing these types of schools to be one of the central priorities in a reform focused on improving quality and equity.

Municipal debt from unreliable school-level budgeting

In his article "Theory and Evidence of Municipal Borrowing in Chile," Leonardo Letelier (2011) explains that despite the absence of official means for sub-national borrowing, municipalities borrow through delay in paying liabilities to providers and social security payments to teachers. According to Villarroel Monsalva, the Chilean Association of Municipalities reported that in 2013, the accumulated debt from municipalities in Chile is around $ 200 billion, of which approximately 73% (about $ 145 billion) correspond to debts to the State (2013).

This debt results from two issues: first, some municipalities must subsidize education at levels higher than they have budgeted, but, more importantly, second, municipalities struggle to set budgets for schools because funds are delivered monthly based on student attendance. Attendance varies, and therefore schools cannot reliably plan. This burden falls most heavily upon low-income municipalities and schools where attendance is most unreliable because of issues related to poverty. As a result, municipal governance is unreliable, and the current system of financing is unsustainable.

Analysis

As with other authors, Villarroel Monsalva points out that "An eventual transfer of the administration of public education from municipalities to other institutions could mean that many of the causes that now account for deficiencies in municipal management, crawl to new institutions," (Author's translation). More important than a full system change, in which the mechanism of spending and administration are completely changed, policy makers need to address the gaps in the current regulations, financial support, and support services. Because of the long process of research, policy proposals, political negotiations, and finally implementation and evaluation of policies, it is important for students to focus on the most salient issues. Within finance and administration, the students as well as the political response have tackled a wide range of different issues and have demanded a full system change. Yet only two major changes within those areas rise to the surface as needing to be addressed.

Low spending and spending on for-profit institutions are not the core issues, and examining how to reconfigure the administration would not provide resolutions. Instead, student demands around providing vouchers based on annual matriculation instead of monthly attendance is key. This would address the unreliable budgetary issues that municipalities face and lead to a more sustainable system. While this may require higher overall spending from the national government, it does not require a full system change.

Providing vouchers to public and private schools, and thereby allowing ongoing choice for families is still possible. Moreover, providing this financing through the national government still makes sense. It also does not necessarily demand significantly higher spending levels. Once budgets can be more reliably determined, schools and municipalities should be expected to be wise fiscal decisions. Rather than across the board higher spending levels, the focus of the current debate should be on asking what financial incentives and regulations lead to the outcomes desired.

However, these concerns enter the realm of administration. Even with the structural changes to the administration demanded by the students, schools and municipalities will still have their hands tied around budgeting. They cannot make significant changes regarding human resources or other investments. Instead of creating a new institution, responding to the current roadblocks to social cohesion and equity through better regulations, support services, and financial administration will more likely bring about the results students seek.

Levin looks at several categories of administration for which roles and responsibilities should be clearly adjudicated. Using the three economic principles above, Levin assigns the central governing unit, which in this case could be shared between the national government and the municipality, the responsibilities of determining: Choice rules and procedures, baseline curriculum, funding and financial accounting, adjudication of disputes, restrictions on admission decisions, mechanisms for supporting special populations, and provision of technical support. While there should be ongoing discussions about how to best administer these areas, the CGU, whether locally or nationally, already executes these responsibilities. The CGU and schools share responsibility for student accounting.

Where the CGU has failed to take on responsibility is in the provision of information and transportation, two areas key to choice districts. Levin points out that all three economic principals indicated the CGU should provide both. Additionally, both issues, and especially transportation, affect all four values in a choice district. Neither of these responsibilities, though, requires any kind of system change.

Most importantly, the CGU is responsible for establishing a portable system of benefits and "widely recruiting a talented pool of teacher prospects," in order to "increase competition in the teacher labor market"; however the CGU should **not** be responsible for individual hiring decisions. Instead, he explains that "schools will choose their own teachers on the basis of the unique needs of schools and the fit of prospective teachers to those needs." He goes on to remind the reader of the "compelling arguments…for locating these responsibilities at the level of the school or network provider" particularly in choice and portfolio systems.

Conclusion

Evidence suggests that the assumptions related to the administration of finance and the administration which undergird the *Acuerdo Social* may not be the most salient concerns. In the case of administration, the decentralized structure is not necessarily at fault. Instead the current regulations, which limit the municipalities, prevent the municipalities from investing in their human resources, innovating, and making fiscally sound decisions. Creating a new, separate, centralized institution opens up the possibility for new pitfalls in any misstep of its creation. Additionally, it is likely to carry current issues forward, and in itself does not bring the system closer to the outcomes which the students value. Finally, expecting the centralized system to at the same time be structured in a decentralized manner creates a system where conflict is likely, and responsibility is diluted—which is precisely what the students which to avoid.

In the case of finance, the issue is not low overall spending. Spending has doubled recently without any change in quality or equity. Public funding for for-profit schools is a very small share of education and will not result in any changes in equity. However, unreliable funding and municipal debt do play a large role in the ability of schools to plan and innovate. Rather than moving away from a voucher system entirely, changing the way in which vouchers are structure—based on annual matriculation rather than monthly attendance—can ameliorate this issue.

Fortunately politicians have responded with a system that maintains the decentralized structure. While it claims to fulfill the desire of students and teachers to "desmunicipalize" the education system, in many ways it reflects the current system. It does, however, involve more actors, and prevent lifetime leadership appointments which have hindered the innovation and growth of the current system. Incorporating more community representatives may encourage policies that reflect social cohesion. This depends, though, on local governance being provided the latitude to make these decisions. Moreover, this system will not build towards greater equity unless the tools in place change.

Rather than changing the system entirely, changing the structure of voucher payments and changing the regulations around human resources and school financing will begin the process of improving school quality and equity. Creating incentives through regulations, support services, and financing which develop more equitable schooling within the current system is ultimately what will deliver the results that the students are looking for. The key is to determine which regulations are necessary and how to structure them.

CHAPTER IV

CRITERIA FOR CHANGE

The previous chapter showed us that changing the structure of administration and the provision of finances, though a priority for the students, will not inherently further the larger goals of the movement with regards to equity and inclusion. It opens up new room for errors and poor policies without providing a clear mechanism for creating change. Instead, the movement should focus on addressing the tools—or the regulations, financial incentives, and social services—which will clearly address these goals. However, this assertion brings us to our next questions: where should the focus be? Which specific tools should change and how?

There is no single solution, but from a politically strategic perspective the student movement is more likely to bring about the changes they desire with a few targeted policy changes that have a high probability of creating progress towards the expressed goals. Building from the evidence presented in the previous three chapters, I make four suggestions for the leaders of the educational movement: 1) Enter at a strategic point in the cycle of inequity; 2) Choose high impact areas; 3) Develop consistent standards for all schools and teachers within policy tools; and 4) Build in appropriate incentives to deliver desired outcomes. I would like to suggest here that teacher policies which focus on recruiting more highly qualified teachers and incentivizing equal distributions of teachers would be one area which addresses all four suggestions.

The search for the "magic bullet" in improving education has long been contentious and highly sought after in the political and civic spheres. It has been difficult to determine what actually "works" because education is frequently a moving target.

Politically driven education reform cycles through various strategies according to the new ‘fixes’ that become popular. Political changes bring in waves of new approaches as studies work to determine the efficacy of various programs and policies amidst a very complicated, multifaceted, and constantly changing system. Programs rarely stay in place for long and frequently are poorly implemented. These two issues create serious dilemmas for researchers working to ascertain the efficacy of these programs.

1) Enter at a strategic point in the cycle of iniquity

Although not discussed in this thesis, much of the education movement has focused on making changes in higher education to make access to higher education more equitable. In fact, about two-thirds of the *Acuerdo Social* focuses on changes to higher education. In this work, I have focused on primary and secondary education, but some of the same problems arise at the university level.

In many ways the structure of higher education benefits the wealthy and has caused disadvantage and debt for many of the low-income students who have tried to enter college. Entrance to universities is almost entirely dependent upon scores on the PSU, or college entrance exam. Employers look first to hire from the top two universities, and then shuffle down the scale from there. Rather than less expensive community colleges and state colleges, which frequently have lower admissions requirements in the United States, students in Chile who score lower on exams frequently have to pay more out-of-pocket to attend private universities if they wish to attend a university. However, with more time I would argue that higher education faces the same concerns as primary and secondary education about change of administration and funding.

To address the question of equity in accessing higher education, the *Acuerdo Social* contains demands surrounding student admission and costs. The students want to remove the PSU test as the primary basis of admissions and provide free higher education for all but the wealthiest students. These demands reflect the belief that by removing barriers to entering higher education, the sector will be more accessible and equitable.

However, without first addressing primary and secondary education, this logic does not hold. Looking at the “Flow of Chilean Education” in Appendix D, students wish to stem this flow at the level of the PSU. Even if the PSU is no longer the primary criteria for entering a university, lower income students who attended lower performing schools are not prepared for university work. Similarly, cutting the cost of universities is not an effective mechanism for creating access if students are not academically prepared to attend. It doesn’t make sense to lower the cost of education if only the wealthiest will qualify. Even changing both areas at the same time would serve to reduce the cost of entry of the wealthiest. Instead, the reform will have the greatest impact by focusing on changes that effect the early stages of this cycle.

2) Choose a few high impact areas

The criticism made earlier in this thesis of the *Acuerdo Social* is that some of the main concerns will require significant work and changes, which create room for new errors and issues to enter, but do not appear to be areas which will have a major impact in delivering change. With the help of Levin’s framework and current research in the field of education, the students could instead select areas with a high probability of making demonstrable changes. This action would both serve to deliver results and keep the movement energized.

As described throughout this work, the framework on school choice points to three policy tools which direct the outcomes of a school choice system: regulations, finance, and support systems. Identifying the areas that would make significant changes would allow the movement and policymakers the latitude to more precisely craft the tools in these areas. Doing so limits the number of political battles, which may also grant more leverage within each area of change. This precision is necessary in order to ensure the right incentives are in place.

3) Develop consistent standards for all schools and teachers within policy tools

The previous chapters demonstrate some of the problems that have arisen from inconsistent regulations and financing. For example, the allowance of top-up fees and, until recently, of selection processes at private voucher schools has allowed for schools to improve quality through student selection. Additionally, these policies have reduced choice and contributed to the student segregation.

On the other side, policies for teachers has inhibited strategic human resource choices and reduced the ability of municipal schools to attract high quality teachers. As described previously, municipal schools have little control over teacher selection, remunerations, or incentives. There is virtually no way for municipal schools to fire low quality teachers or principals, while private schools simultaneously are using lay-offs as a tool to keep costs low and to remove poor teachers.

The disparate policies have contributed to many of the problems in education. Standardizing policies and changing the financial incentives for teachers so that municipal schools do not have such a significant disadvantage could begin to address these concerns. Additionally, all schools should be held to the same quality standards, and face the same consequences when these standards are not met. Very few municipal or private schools have been forced to shut down based on quality or attendance. There are no clear standards in place which schools have to attain in order to remain in operation. Not only are these important, but also they should be applied uniformly to all schools.

That said, it is important that standards and regulations take into account the different situations of schools. All schools should face the same regulations, but the regulations should also account for the different student populations that schools serve. For example, low income and homeless children require more schools resources and support than students from high-income households that have access to private after-school tutoring, consistent shelter, and food. As new regulations and financing are applied across the board to all schools, they should account for and provide for these differences among student populations.

4) Build in appropriate incentives to deliver desired outcomes

In previous chapters we saw the consequences of passing regulations that create incentives that do not reflect societal values. Different regulatory and financing structures between municipal schools and private voucher schools has reinforced student segregation. These tools have encouraged stronger teachers to first work for private schools, private schools to use student selection to demonstrate quality, and private voucher schools to screen out low-income students through selection processes and top-up fees. When creating choice and efficiency were the goals, these outcomes were obstructed by the policies put in place meant to achieve them.

A priority of the movement needs to be around the structure of the related tools, an area which is frequently compromised in the political process. As mentioned previously, focusing on a few specific areas for reform can aid in the specificity of the changes demanded. These tools should consider whether a mandate, inducement, or capacity building procedures make the most sense. Additionally, how financial incentives are structured—rather than who provides the finances—greatly impacts personal, school-level, and district level decisions.

Teacher Policy as a solution

While there are different possibilities for fulfilling the four criteria, I propose teacher policy as a particularly salient example of a policy area that would satisfy the described criteria. There have been legislative changes around teacher policies during the past decade. Changing working conditions for teachers is a small part of the *Acuerdo Social,* but addressing teacher policies has not been a significant focus of the movement. Moreover, these changes are seen more as a solution to addressing teacher dignity and quality than as part of building equity and social cohesion. Using current research, I will briefly show how this one area of reform could be a focus of the movement, and more effective by itself than restructuring the administration of the education system.

Teacher Policy: 1) Enter at a strategic point in the cycle of inequity

The initial impetus of the protests is the unequal access to higher education. However, as shown in Appendix D, the unequal access is very much a consequence of the primary and secondary education system. It is important to strategically select the focus.

Like other students, teachers face the consequences of this inequality and iniquity during their own education. However, the sorting that occurs as a result has long-term consequences for students currently in primary and secondary education. In a paper on teacher sorting, Ruffinelli and Guerrero (2009) describe the overlap between training quality/competitiveness and resulting teacher sorting as a vicious cycle of inequality. They show that teachers who went to selective universities are much more likely to teach at private and subsidized schools—and to have gone to private and subsidized schools themselves. The teachers with stronger training and tools continue to teach in stronger, wealthier schools, while teachers from weaker educational backgrounds teach at weaker schools, continuing the cycle.

Not only are teachers an example of the cycle of iniquity, but their hiring choices reinforce it. Making changes to higher education in general will not address this issue. Improving all higher educational institutions for teachers would be beneficial. Additionally encouraging high achieving bright students to become teachers through higher earning potential and encouraging a more even distribution of teachers would do more for the educational system long term. Recent policy changes have awarded students with high test scores who choose to study and then to enter the teaching field.

Teacher Policy: 2) Choose a few high impact areas

Rather than the breadth of changes that could occur, selecting a few areas with evidence of the potential to deliver outcomes is important. There are few areas in education research that have consistent findings demonstrating effectiveness, especially around issues of equity. Teacher quality, though, has arisen as an area with important contributions. Comparing 10 teacher value-added/teacher effectiveness studies, Hanushek (2011) finds on average significant large labor market returns for students from teacher cognitive skills in both math and reading.

Recently, a break-through study in the U.S. points to teacher quality as a very significant factor. Hanushek's study did not include the recent and foundational study on teacher value-added by Chetty, Friedman, and Rockoff (2011). In a careful and in depth study using comprehensive data from a large metropolitan area, Chetty, Friedman, and Rockoff (2011) found that individual teacher's value-added had an impact on student college attendance, lifetime earnings, teen pregnancy, and retirement savings among other outcomes. One teacher who is one standard deviation above—or below—the mean has an effect on the lifetime earnings of her students. They found that a student with one teacher who was one standard deviation above the mean would earn on average $25,000 more in total undiscounted lifetime earnings with one such high quality teacher. The distribution of teachers by quality therefore has major consequences for equity in economic opportunities. As a result, attracting, retaining, and distributing top teachers are becoming increasingly prioritized goals in education reform.

Teacher Policy: 3) Develop consistent standards across schools

As has been described, there are different policies applied to teachers at different types of schools. These inconsistent policies have had very direct consequences. In particular it has led to segregation among teachers as well as students. The division among students has been most clearly documented, but teacher preparation, ability, and background also vary by region, municipality, and school type. The results from studies on teacher sorting in Chile clearly find differences among teachers.

A study by Ortúzar et al. (2009) shows that teachers with weaker training were more likely to work in economically and academically disadvantaged schools. Meckes and Bascopé (2012) analyzed the distribution of newly-hired Chilean elementary school teachers teaching at subsidized private schools. Teachers' exit exams scores were positively correlated with the socio-economic level of the school. Teachers with higher scores taught at schools with students from higher socio-economic levels, while students from lower socio-economic backgrounds had teachers with lower scores on their exit exams. Tincani (2012) showed that teacher quality in Chile was correlated with earning potential and, consequently, influenced the quality of teachers in each group of schools. Private schools pay higher salaries, allowing them to skim the top teachers. Aravena Castillo (2009) also found that teacher segregation occurred by school performance, but segregation was limited to the Metropolitan Region, Santiago.

Studies of teacher sorting in the United States, or the "teacher gap", have similar findings. Wayne (2002) looked at the teacher gap from the perspective of the quality of teachers' higher educational institutions. He found that teachers from less competitive, less challenging institutions were more highly represented at lower income schools. Lankford, Loeb and Wyckoff (2002) used university competitiveness, qualifications, and years of experience for the independent variables to capture teacher quality, and Boyd et al. (2002), used competitiveness and certifications; both reported findings similar to Wayne's.

Teachers in Chile have responded to incentives: higher quality teachers who are more competitive choose to teach in more highly paid positions; within school type, more qualified teachers teach at schools at a higher socio-economic level, where more resources are available and there are usually fewer impediments and student issues outside of the learning environment. As will be discussed later, teachers also teach where they are familiar. Recent studies show that the policies around teacher pay, retention, and selection have contributed to the sorting of teachers by background, education, and achievement. The need for policy tools which hold all schools to the same standards, and provide is clear.

Teacher Policy: 4) Build in appropriate incentives to deliver desired outcomes

Building in appropriate incentives requires first identifying the scope and timeframe for outcomes and then completing research and careful analysis to ensure incentives are well structured. The efficacy of teacher recruitment, placement, and retention, which determine the quality and distribution of teachers in the classroom, will depend upon creating policies that put the appropriate systems in place. Behavioral economists struggle to pinpoint the causes of behaviors. As with many behavioral economic studies, it is hard to predict the outcome of policy changes without the opportunity to observe a sample case or another proxy. Issues such as changing job opportunities for women, alternative career options, and non-pecuniary benefits such as safety, co-workers, and students, all influence responses to incentives.

While many of the economic studies around teacher policies have used U.S. data, the findings may still provide insight for Chile. For example, simple pay raises would not necessarily be a solution to improving teacher quality (Ballou and Podgursky 1995). Loeb and Page (2000) explain that, holding all else equal, we would expect districts with higher wages to attract more highly qualified teachers in studies of cross-school or cross district differentials in pay; however not all else is equal. The response of more talented teachers, whose preferences are more elastic, to wage change is partly offset by the tendency of less qualified teachers to stay in their jobs longer in response to higher wages (Ballou and Podgursky 1995).

Ballou and Podgursky (1995) argue that “because there are so few smart teachers in the workforce,” looking specifically at the low range of SAT scores, any effect wage change has on the top teachers will be almost negligible. The pool of teachers in Chile is in a similar situation, with few high-quality, high achieving students becoming teachers. Due to low compensation, most high achieving students choose other professions.

Ballou and Podursky (1995) concluded that pay raises are inefficient while looking at the existing pool of qualified candidates. They did not account for the response of new candidates to higher salaries. Instead, policies should look at teacher recruitment. Many studies have found that increasing salary improves teacher quality over time, as more qualified candidates are attracted to teaching (Loeb and Page 2000; Hendricks 2014; Figlio 1997). Partially due to new employment opportunities for women, the average wage of teachers in the U.S. has fallen over time. As a result, higher quality candidates face a greater opportunity cost for teaching (Loeb and Page 2000; Bacolod 2007). Additionally, looking at local teacher labor markets, Figlio (1997) finds that schools with higher salaries within a metropolitan area, all else equal, tend to attract more highly qualified teachers.

These findings are important for Chile. Women entered the workforce later in Chile than in the U.S., and so the education system is probably just now encountering some of the same issues of the changing labor market. Chile does face a major issue with recruiting top candidates. Recent policies have begun to address that issue by offering scholarships to students with high PSU scores that study teaching and higher salaries for students with high exit exam scores. However the opportunity cost of teaching remains high.

However there have not been significant efforts yet to address the sorting among teachers. In addition to the pecuniary and non-pecuniary benefits of teaching at private schools and schools with students from a higher socio-economic background, teachers tend to teach near home and in a similar school as the school they attended. Boyd et al. (2005) found that 60% of teachers in New York teach within 15 miles of where they grew up, and 85% teach within 40 miles. Looking specifically at teachers in Chile, Cabezas et al. (2011) found that teachers were most likely to teach in the same type of school that they attended for high school**.** They found that when teachers switched schools, they were more likely to move to a similar school of the same administrative type and socioeconomic level. Incentives that encourage a better distribution of quality teachers among schools then must overcome both the benefits of teaching and private and wealthier schools and the tendency of teachers to return home.

Conclusion

I advise the leaders, and anyone in Chile interested in making significant reform, to focus on the following criteria: 1) Enter at a strategic point in the cycle of iniquity; 2) Choose high impact areas; 3) Develop consistent standards for all schools and teachers within policy tools; and 4) Build in appropriate incentives to deliver desired outcomes. Leaders within the student movement and policy makers would need to decide on the time frame for change and the ultimate goal. They then should select the most salient areas of reform, and transform them radically and carefully.

Chile has already taken significant steps to change the field of teaching. I suggest that this be a central focus, and that the students pursue teaching policy as a means for correcting the vast inequality. In particular, policies such as differential pay incentives along with improving hiring policies could encourage stronger teachers to teach in low income schools. By offering higher pay and lower performing schools, these schools could have a larger candidate pool to choose from. Teacher quality also could play an important part in these pay incentives, and could relate to location. At the same time, though, policy makers would need to address creating a more localized, transparent hiring process in order for these policies to induce competition and teacher selection.

They wish to change higher education, but until primary and secondary education are of better quality across the board, any changes to higher education will be limited, and most will be superficial. Students from all income levels must be prepared for higher education if the leaders of the movement truly want to create a “level playing field.”

CONCLUSION

Since the voucher system was implemented in the 1980's, many issues have arisen. In particular student economic segregation along side little or no quality improvements has led to widespread discontent. Student sorting has occurred across types of schools, with lower income student predominantly in municipal schools, and by school quality. Using Levin's framework for evaluating school choice, I found that this segregation and rising discontent has resulted at least in part from both the poor use of policy tools to implement the system and the shift of values from productive efficiency and choice to social cohesion and equity. These policy tools have lead to perverse incentives, which have encouraged sorting. Policies allowing student selection, limiting choice due to lack of support services, and setting different regulations for private voucher schools than for municipal schools have fueled this sorting. As Chile has adjusted to democracy following the dictatorship, this shift has become more pronounced, and the people more vocal. There has been more visible interest in creating an education system which reflects a value in equity. This interest has turned more recently to demonstrations, school takeovers, and political negotiations to demand change.

The leaders of the student protests have demanded sweeping reform, most notably through the *Acuerdo Social.* However, the demands do not promise significant changes in outcomes. There are too many changes demanded at once, which will require significant adjustments without much precision or room for technicality. Moreover the breadth of changes opens the system up to significant room for error, particularly the interest in a full administrative change.

I argue that focusing on the tools used to implement the education system is a more effective way to enact change. In particular, the four criteria described would allow students to quickly create change without introducing significant unintended consequences: 1) Enter at a strategic point in the cycle of iniquity; 2) Choose high impact areas; 3) Develop consistent standards for all schools and teachers within policy tools; and 4) Build in appropriate incentives to deliver desired outcomes. I suggest that teacher policies such as incentivizing high quality teachers to teach at low-income schools would be one mechanism which fulfills these criteria and could begin to deliver results.

Future research should examine the results of countries who reformed higher education, comparing their primary and secondary school systems to Chile's in order to determine whether these changes delivered the expected outcomes. Regardless, I believe the four suggestions found here will better serve the students in their pursuit of change.

APPENDIX A

Excerpt from “*Bases para un Acuerdo Social por la Educación Chilena*”

Articles related to the Administration of Primary and Secondary School:

II.- Educación Escolar

La Educación Escolar contempla tanto la educación pre-básica, básica y media. Y en la educación media, tanto la científico-humanista como la politécnica o técnica profesional. En este contexto, y sin perjuicio de otras materias, en lo fundamental se impulsara:

A. La Desmunicipalización de la Educación.

Se creará en su reemplazo un nuevo Sistema Nacional de Educación Pública, dependiente del Ministerio de Educación, de carácter descentralizado, con la forma de Servicios Públicos con patrimonio propio y especializado en la administración de la educación pública escolar. La creación de esta nueva institucionalidad debe ser discutida con todos los actores: profesores, asistentes de la educación, estudiantes y apoderados.

Todos los establecimientos educacionales dependerán administrativa y financieramente de este Nuevo Sistema Nacional de Educación Pública.

B. Nuevo Sistema de Financiamiento.

El Nuevo sistema de financiamiento asegurará un aporte basal para todos los establecimientos educacionales vía presupuesto y no según asistencia, para lo cual se implementará un calendario a través del cual se pondrá fin al sistema de financiamiento compartido y de toda forma de lucro en los establecimientos que reciban financiamiento público.

D. Regulación y control de la creación de nuevos establecimientos subvencionadas

La suspensión inmediata de la creación de nuevos establecimientos subvencionados hasta que se definan parámetros objetivos que justifiquen la creación de nuevos establecimientos y se resuelva la Nueva Institucionalidad de la educación pública. Ambos aspectos son centrales para poder definir un sistema nacional de educación que pueda, efectivamente, operar con la nueva institucionalidad definida. Ello, vinculado, además, a las correcciones al sistema de financiamiento de la educación escolar.

APPENDIX B

Excerpt from "*Bases para un Acuerdo Social por la Educación Chilena*" translated to English by author

Articles related to the Administration of Primary and Secondary School:

II. School-age Education

School-age Education as stated here refers to pre-school, primary, and secondary education. Secondary education refers as much to the science and humanities as the poli-technical and technical professional education. In this context, and without harm or prejudice from other subjects, fundamentally we promote:

A. Removing the Municipalities from the Administration of Education

Create a new National System of Public Education (*Sistema Nacional de la Educación Publica SNEP)* to replace the current Ministry of education (Ministerio de Educación) with its own *patrimonio* or inherent rights and purpose separate from the prior Ministry of Education. This SNEP would be decentralized, in the form of a Public Service, specializing in the administration of public primary and secondary school. The creation of this new institution should be discussed with all the actors: teachers, attendees of the educational institutions, students, and parents (or other representatives).

All of the educational establishments will depend upon this new National System of Public Education administratively and financially.

B. New System of Financing

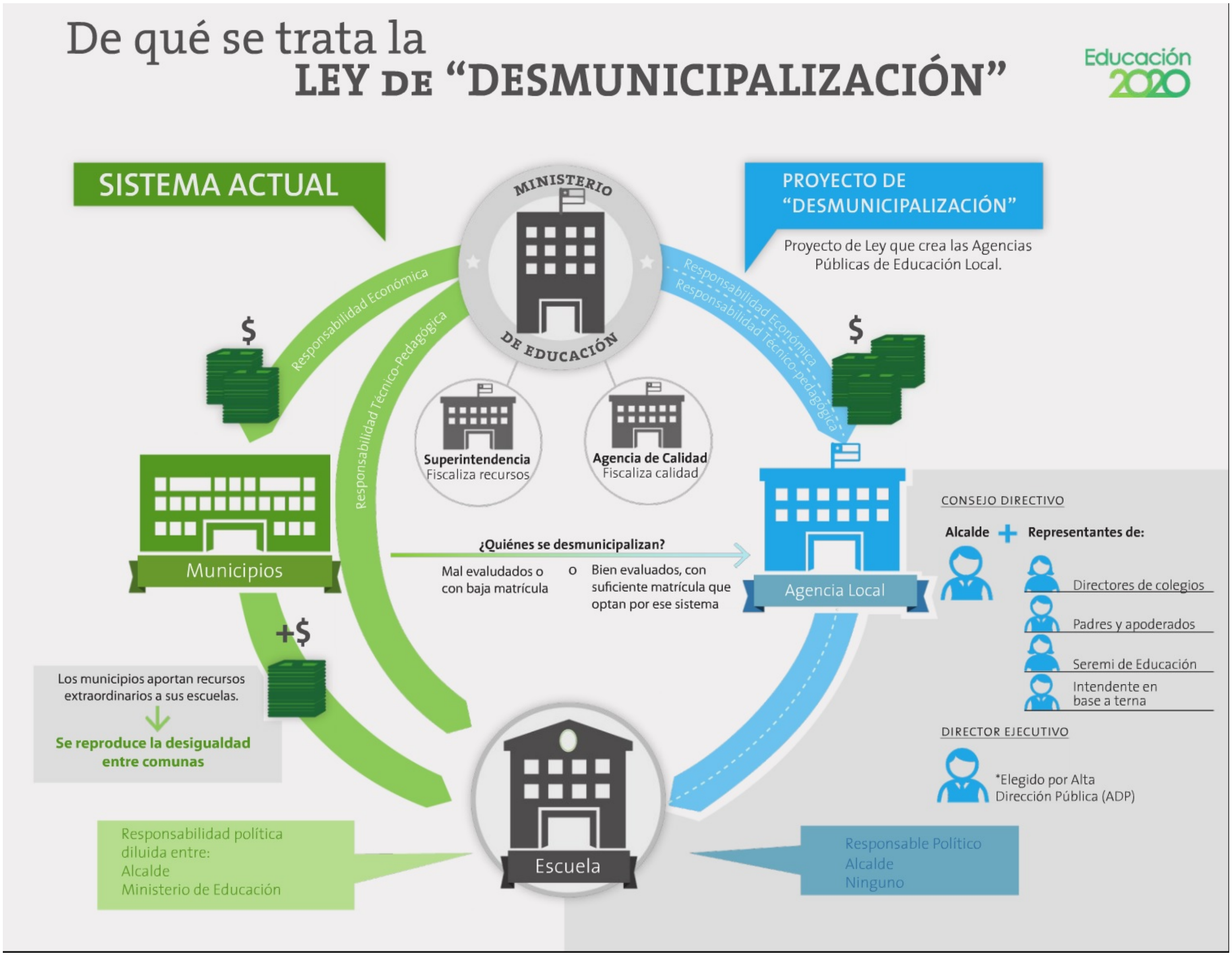
The new system of financing will ensure a baseline of support for all educational establishments by enrollment and not by attendance, for which a calendar will be implemented through which there will end the system of shared financing and all forms of profit in the establishments which receive public funding.

C. Regulation and control of the creation of new subsidized establishments

The immediate suspension of the creation of new subsidized establishments until objective parameters that justify the creation of new establishments are defined and the establishment of the New Institution of public education is settled. Both aspects are central in order to be able to define a national system of education that can effectively operate with the aforementioned new institution. *(Author's translation)*

APPENDIX C

"De qué se trata la LEY de 'DESMUNICIPALIZACIÓN"


De qué se trata la
LEY DE "DESMUNICIPALIZACIÓN"

Educación 2020
SISTEMA ACTUAL
MINISTERIO DE EDUCACIÓN
Responsabilidad Económica
Responsabilidad Técnico-Pedagógica
$
Municipios
+$
Superintendencia
Fiscaliza recursos
Agencia de Calidad
Fiscaliza calidad
Escuela
Agencia Local
CONSEJO DIRECTIVO
Alcalde
Representantes de:
Directores de colegios
Padres y apoderados
Seremi de Educación
Intendente en base a terna
DIRECTOR EJECUTIVO

PROYECTO DE "DESMUNICIPALIZACIÓN"

Proyecto de Ley que crea las Agencias Públicas de Educación Local.

¿Quiénes se desmunicipalizan?

Mal evaluados o con baja matrícula o Bien evaluados, con suficiente matrícula que optan por ese sistema

Los municipios aportan recursos extraordinarios a sus escuelas.

Se reproduce la desigualdad entre comunas

Responsabilidad política diluida entre:
Alcalde
Ministerio de Educación

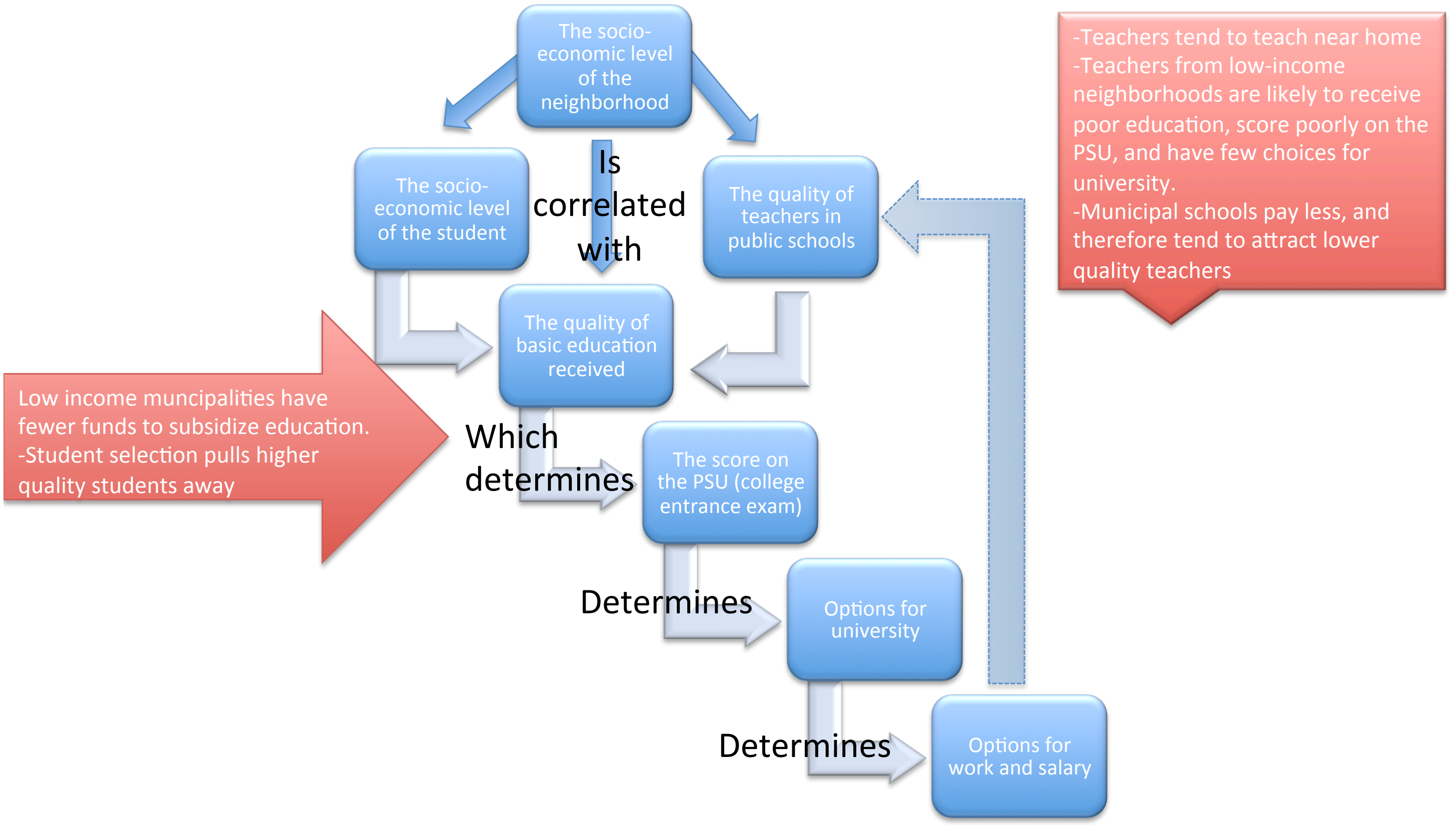
Responsable Político
Alcalde
Ninguno

*Elegido por Alta Dirección Pública (ADP)

APPENDIX D

The Flow of Educational Opportunities in Chile

The Flow of Educational Opportunities in Chile


The socio-economic level of the neighborhood
The socio-economic level of the student
Is correlated with
The quality of teachers in public schools
The quality of basic education received
Which determines
The score on the PSU (college entrance exam)
Determines
Options for university
Determines
Options for work and salary

-Teachers tend to teach near home
-Teachers from low-income neighborhoods are likely to receive poor education, score poorly on the PSU, and have few choices for university.
-Municipal schools pay less, and therefore tend to attract lower quality teachers

Low income muncipalities have fewer funds to subsidize education.
-Student selection pulls higher quality students away

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