Deregulation, Institutional Change, and Entrepreneurship in the Swedish Education System

Intended and Unintended Effects of Competition

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Deregulation, Institutional Change, and Entrepreneurship in the Swedish Education System : Intended and Unintended Effects of Competition

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To
My Family

Foreword

This volume is the result of a research project carried out at the Department of Management and Organization at the Stockholm School of Economics (SSE).

This volume is submitted as a doctoral thesis at SSE. In keeping with the policies of SSE, the author has been entirely free to conduct and present his research in the manner of his choosing as an expression of his own ideas.

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Abiel Sebhatu

Contents

1. INTRODUCTION

In this dissertation, I study organizational behavior primarily at the macro level using organizational institution theory to explain how organizations emerge and compete over time and in proximal space. The empirical setting is the deregulation of the Swedish education system in 1992 and the ensuing development of schools over the following two decades. This dissertation consists of four separate papers in which I look at factors both within and outside organizations to understand how they influence and are influenced by market and non-market forces. My studies are based on detailed school-level panel data including all Swedish schools constructed from multiple data sources. I focus specifically on high schools, which are more susceptible to competition for students. The studies use both quantitative and qualitative methods. A central approach to these studies is the use of multiple levels of analysis in order to understand the consequences of competition among organizations following the deregulation of a former public sector entity.

Institutional organization theory broadly seeks to explain organizational behavior based on the framework of regulation, norms, and culture (for a comprehensive review see, Scott, 2013), using—among others—theories of organizational isomorphism (DiMaggio & Powell, 1983) and rationalized myths (Meyer & Rowan, 1977). In the context of this dissertation, institutional organization theory helps develop an understanding of school development beyond economic and regulative factors. For instance, one aim of the deregulation was to break the public monopoly by allowing private firms to establish schools, which was expected to improve the overall efficiency of the school sector by reducing costs, enhancing school choice, and improving educational services. However, the period after the deregulation has been marked by increased public expenditure[1], segregation among students across schools, and declining student test scores[2]. To understand this development, I go beyond evaluating competition in economic terms to explore how socially held norms affect competition among schools. Organizational research on education and the study of social norms provide the foundation for understanding the early effects of competition, whereas economic-oriented research on education has found effects only in late stages of post-reform development (Böhlmark & Lindahl, 2015).

To probe the relationship between norms and school organizations' behavior (i.e., how organizations adhere to socially accepted practices among key stakeholders), I use various measures of internal school dissatisfaction and working environment as well as external public opinions on schools and political factors. For instance, I show that conformity to norms may enhance the legitimacy of organizations, which grants them access to resources, but may also have adverse negative effects for the organizations in the long run (e.g., see Study 2 of this dissertation). I also show how dimensions of institutional demands are multifaceted and operate at various levels, which in turn makes it difficult for some school organizations to adapt (see Study 1, Study 2, and Study 4 of this dissertation). There is inter-organizational competition between schools for students but also competition for external resources at the local community level as well as demands from organizational members. In this situation, demands by stronger stake-

[1] However, the evidence is ambiguous: some have found weak positive and significant effects (Antelius, 2007; Lindblom, 2010), whereas others have found positive but not significant effects (Björklund et al., 2006; Bohlmark & Lindahl, 2007). The argument for increased costs is usually that school choice reduces the predictability for municipalities as they plan since students can choose schools in other municipalities. However, Bohlmark and Lindahl (2015) found negative and significant school costs with increased competition in terms of changes in the share of independent school students within municipalities.

[2] Students grade performance, as given by the schools, is in fact increasing. Rather, student scores reported in international studies of a sample of students asked to complete a selection of questions in math, reading, and natural science declined in Sweden relative to other nations throughout the 1992–2011 study period (OECD, 2013).

holders may overshadow demands by weaker stakeholders and yield negative spillover effects on the latter when organizations solely adapt to the former. As such, this dissertation studies both intended and unintended consequences of competition.

This dissertation sets out to answer the following general research question: *What are the consequences when schools are made to compete?* The goal of this dissertation is to enhance our understanding of some of the larger societal consequences of organizations that are made to compete.

The dissertation is organized as follows. First, in Chapter 2, I briefly present previous school research primarily related to the Swedish voucher reform as studied by economists and sociologists. Since there is a lack of macro organizational studies on the Swedish school sector, I primarily present previous research conducted on US charter schools. In Chapter 3, I extend the discussion on macro organizational behavior and explain its usefulness for understanding institutional change. In Chapter 4, I briefly summarize my four research studies, and in Chapter 5, I present my intended research contributions. The four research studies constituting this dissertation are fully presented in the appendix.

2. SCHOOL RESEARCH IN SWEDEN

Much research on the Swedish education system after the 1992 reform is influenced by US studies. However, large differences exist between the US and Swedish education system—a fact recognized by the education research community. In regard to analyzing the effects of the 1992 reform, scholars have argued that "the Swedish system . . . is not problematic since all municipalities faced the same institutional setting both before and after the reforms and the reforms were homogenous across the country" (Ahlin & Mörk, 2008: 10). Many Swedish studies have focused on the elementary and junior high schools and can be divided—although overlapping—into two larger disciplines: economic-oriented and sociology-oriented studies. Economists have usually investigated the impact of competition at the municipality level of analysis, whereas outcomes of student achievements in terms of grades and test scores have generally been investigated at the individual level. Sociologists have rarely investigated competition but rather segregation, and they have tended to focus on differences in educational achievement and households' propensity to choose schools. Together, both streams of research have generally focused on outcomes at the individual level and have tended to evaluate quality in terms of post-educational performance, including educational attainment level (if students continue their education at a higher level) and occupational attainment (if they obtain jobs and the level of earnings). However, we do not know much about how the reform has affected schools as organizations, which is the focus of this dissertation. Before describing my approach, I will briefly review the state of current research on the Swedish education system. The review is narrowed as far as possible to studies that are published and primarily focus on evaluating the impact of the reform.

Economics of education

Research on the economics of education has traditionally been concerned with the financial returns of public expenditure on schooling, where return on investments in physical capital is translated to human capital (i.e., the production potential carried by individuals) and economic growth (Becker, 1994; Friedman, 1955; Schultz, 1961). Later developments in the field included the effects of production input, such as schools (e.g. class size and teacher qualification), families, and neighborhoods, on student achievements (e.g., see Hanushek, 2002). This development was influenced by the Coleman Report, which relied on rational choice theory as an attempt to combine theory-driven research from economics and empirical-driven research from sociology by studying the behavior of a social system at the macro level as an implication by interactions among individuals at the micro-level (Coleman & Fararo, 1992).

Competition and achievement

A number of early studies on the effects of the Swedish voucher school reform investigated cross-sectional effects of competition in various municipalities. In these studies, competition was measured as the share of compulsory students in independent schools. These studies found that competition tended to have positive but weak effects on student grades and test scores (Ahlin, 2003; Bjorklund et al., 2006; Sandström & Bergström, 2005). Follow-up studies have included all students and municipalities over longer time periods, including pre-reform cohorts, and have shown similar results as well as positive post-compulsory educational outcomes, such as educational attainment in higher education (Böhlmark & Lindahl, 2015;

Edmark, Frölich, & Wondratschek, 2014). Wondratschek, Edmark, and Frölich (2013), on the other hand, found no considerable effect from attending a school during intensified competition on students' long-term outcomes, such as university education attainment, employment, criminal activity, or health. As will be further described below, these findings may be sensitive to the level of specification of competition and the inclusion of neighborhood effects.

Resources and achievement

Another set of studies has looked at the relationship between changes in school resources in terms of the share of teachers per students (class size) and student performance. These studies have found positive effects of classroom size on students' performance both in the short and long term (Bjorklund et al., 2006; Fredriksson & Öckert, 2008; Fredriksson, Öckert, & Oosterbeek, 2012; Lindahl, 2005). For instance, Bjorklund et al. (2006) noted a decrease in schools' share of teachers per students of 1.7% between 1990 and 1999, but this figure increased in the beginning of 2000. Leuven, Lindahl, Oosterbeek, and Webbink (2007) found that extra resources granted by the government in terms of computers and software and extra funding for personnel for schools with higher proportions of disadvantage students have a negative effect on student achievement. An international comparison study that included Sweden found higher management quality (a score based on 20 basic management practices) to be positively associated with students test scores (Bloom, Lemos, Sadun, & Van Reenen, 2015).

Grade inflation

Another frequently studied area is the relationship between competition and grade inflation (Cliffordson, 2004; Hinnerich & Vlachos, 2017; Wikström & Wikström, 2005). Grade inflation is measured as the difference between student test scores evaluated by teachers in school and by external evaluators. Wikström and Wikström's (2005) work was the first Swedish study on grade inflation among high school students, in which the authors compared municipalities with many schools and municipalities with only one public school as measure of competition. They found that competition has weak positive effects on student grade inflation and furthermore that independent schools tend to have considerably higher grade inflation than public schools. However, this study was cross sectional and based on a sample of all students entering in 1994 who graduated ninth grade in 1997, and the authors compared two different types of tests as their measure of grade inflation. In a more recent study on grade inflation, Hinnerich and Vlachos (2017) examined the differences between similar standardized tests graded internally by the school and externally graded by the Swedish School Inspectorate for 100 randomly selected students attending public or privately run high schools in 2010, 2011, and 2012. They similarly found that students in privately run high schools receive more generous grading from internal graders than external graders compared to students in public schools.

Efficiency

One expectation of the voucher reform in 1992 was to improve the school sector's efficiency by allowing private schools to compete and create pressure for public schools to improve. Several studies have been conducted on the efficiency of the school sector following the reform in 1992. These studies have mostly been interested in government and school expenditure rather than changes in student achievement. In contrast to the US school sector, Swedish school financing does not vary considerably between municipalities. Despite decentralizing the finances of the Swedish school system, Sweden has kept curriculum at the state level and has maintained an equalizing financial system. Studies in this field have rarely found any significant changes in cost expenditure. An early study using municipality data between 1985 and 1995 found that teacher density has become more equally distributed across municipalities, but this may have been caused by the financial crisis that occurred during this period (Ahlin & Mörk, 2008). Similar results were found in Ahlin and Johansson's (2001) study, which compared municipality school spending to spending in other government sectors in 1991. They showed considerably lower variation in municipality school spending than expenditures in other sectors. Waldo (2007), on the other hand, found no effect of competition, measured as the number of privately run compulsory schools, on efficiency, measured as a score including the number of full-time-equivalent teachers per student, money spent on teaching material, and students' achievement levels (i.e., students passing all subjects and progressing to upper secondary school), in the 1999–2000 school year. However, he found that local politics in municipalities with a socialist majority are less efficient.

Studies on school costs have found weak positive effects on municipalities per-student expenditure following the voucher reform (Antelius, 2007; Lindbom, 2010), whereas others who reassessed these studies have found no significant effects (Bjorklund et al., 2006; Bohlmark & Lindahl, 2007). The theoretical argument posed in these studies has usually been that increased school choice reduces the predictability and coordination of municipalities as they plan for student attendance since students can choose among schools across municipalities and residential areas. However, Böhlmark and Lindahl (2015) found negative and significant school costs with increased competition in terms of changes in the share of independent school students within municipalities. Further, Hensvik (2012) found increased competition in regions to be associated with higher salaries for teacher both in independent and public schools.

Sociology of education

The sociology of education can be distinguished from the economics of education by, among other things, its focus on status attainment and social mobility, integration, social and cultural capital, social reproduction, and institutions (Arum, Beattie, & Ford, 2010). Status attainment and social mobility are concerned with whether or not individual occupational attainment and future life opportunities are improved through education. Social capital and social reproduction are concerned with the persistence of inequality between individuals with more and less advantageous class origins.

The institutional study of education refers to how school organizations emerge and expand by accepting norms, values, and practices as taken-for-granted assumptions, which eventually leads to similar organizational structure regardless of students' educational needs. Together, these concepts broadly explain the stratification of individuals within and between schools and their behavioral lifestyles based on class, ethnicity, and gender.

Stratification

Sociological education research has been increasingly more concerned with whether or not the school sector's development impacts students differently depending on their socioeconomic origin, exploring issues like parental education immigrant status, and area of residence. Together, economists and sociologist have focused on individual outcomes rather than organizational outcomes. Unlike economists, sociologists are less concerned with competition and more concerned with segregation. However, these studies have generally been inter-disciplinary and thus include aspects of both foci. For instance, as discussed earlier, economic-oriented studies have shown disadvantage in terms of immigrants to not benefit less in terms of achievements from increased school choice subsequent the deregulation in 1992 and that low-income families benefitted slightly more than high-income families (Edmark et al., 2014). Lindahl's (2005) study (described previously in the section on resources and achievement) showed the positive effect of more resources (in terms of more teachers per students/class size) on student achievement to be higher for disadvantaged groups (i.e., students whose parents are non-Swedish). Also, grade inflation from attending a voucher school was found to be concentrated among relatively low-performing students without highly educated parents (Hinnerich & Vlachos, 2017).

Further, neighborhoods are central to the sociological study of education and opportunity equality. Brännström (2008) studied neighborhood and school effects on 26,000 high school students' achievement in Swedish metropolitan areas (Stockholm, Gothenburg, and Malmö) in the 2004 school year. He found that school characteristics explained the variability of high school students' achievement more than neighborhood characteristics. A longitudinal study comparing students before and after the reform showed improved achievement for ninth grade students living in high-crime urban areas (Edmark et al., 2014). However, a study by Jonsson and Rudolphi (2010) showed that students of non-European immigrant origin underperform by having lower and more often incomplete grades relative to their native counterparts, but those who continue their education tend to choose more advantageous upper secondary education relative to children of earlier-generation labor immigrants mostly from Nordic countries. However, this study did not incorporate information on neighborhoods, among other things. Following an entire cohort of immigrant children who graduated from Swedish compulsory schools in 1995, Bygren and Szulkin (2010) found that ethnic environment (the number of people of the same national background) increases the likelihood of long-term educational attainment (highest completed education in years at age 24) if the ethnic community is already characterized by educational success. This study was, however, done on cohorts graduating from compulsory schools in the early phase of the deregulation. Several important administrative reforms were implemented after 1995 that changed the institutional setting (Ahlin & Mörk, 2008).

Implemented in Stockholm in 2000, one such administrative reform increased school choice and abolished residence-based admission criteria (may vary across other municipalities). Prior to this reform, students were able to choose any school outside their residential area based on grades, but if the school was overenrolled, students were allocated to the nearest school in their residential area. After the reform in 2000, students were no longer bound to the nearest school in their residential area even if their preferred school was full. Instead, they could go to any school that had available seats. Söderström and Uusitalo (2010) explored this administrative reform, finding a shift from segregation by ability to segregation by family background, especially between immigrants and natives. Interestingly, they argued that these two types of segregation have implications for our understanding of segregation since only segregation by ability had been explained at the time, whereas segregation by family background was less understood.

This understanding has been developed in recent research, to which I turn in next section.

School choice and segregation

There is mounting evidence that school segregation between students with educated parents, immigrant backgrounds, and native Swedish ancestry has increased in tandem with increased school choice after the deregulation in early 1990s (Andersson, Östh, & Malmberg, 2010; Bjorklund et al., 2006; Böhlmark, Holmlund, & Lindahl, 2016; Östh, Andersson, & Malmberg, 2013; Söderström & Uusitalo, 2010; Statistikkontoret, 2002; Yang Hansen & Gustafsson, 2016; Yang Hansen, Rosén, & Gustafsson, 2011). Still, we know little about the mechanisms underlying these patterns. Specifically, segregation by family background, which has increased since the reform, has been found to be more difficult to explain than segregation by ability, which increased in the early phase of the deregulation (Söderström & Uusitalo, 2010).

The geographic research stream has been prominent in the study of school choice as a path to understand segregation. In a study of 15-year-old students' travel distance to school between 2000 and 2006, using individual and neighborhood data, Andersson, Malmberg, and Östh (2012) found that travel distances have generally increased and are higher for students with educated parents than foreign-born students without highly educated parents and for students from households receiving social assistance. In other studies, they also found that neighborhoods with a higher concentration of minorities are more likely to choose schools outside of their neighborhood but also perform worse on the PISA 2003 test[3] than neighborhoods with a low share of minority students (Andersson et al., 2010; Östh et al., 2013). To gauge the motives for parental school choice, Malmberg, Andersson, and Bergsten (2014) surveyed families with children in upper primary school (fourth- and sixth-grade students) from a random sample of 6,900

[3] PISA is a survey carried out every two years by OECD to compare member nations' ability in math, science, and reading skills among junior high school students.

parents in eight municipalities and matched the responses with individual and neighborhood socioeconomic characteristics. They found that school choice is strongly influenced by the social and ethnic composition of parents' own and surrounding neighborhoods and that the socioeconomic status of neighborhoods has stronger effects than individual parents' socioeconomic status.

The choice motives have been further scrutinized. Based on 53 interviews of boys in public elementary schools in socially deprived areas of Stockholm and Malmö, Bunar (2010) asked why students choose to stay in bad schools. He argued that this decision is based on youths' fear of losing their network and the perceived safety of becoming an outsider if participating in a "Swedish middle-class school." Thus, Bunar questioned arguments related to information asymmetry, transportation costs, and time. However, Shafiq and Myers (2014) found no decline in social cohesion among 14-year-old students' attitudes toward ethnic minorities and immigrants using the 1999–2009 International Association for the Evaluation of Educational Achievement's civic education survey. On the other hand, in an early study, Lidström (1999) argued that the decision to enhance and stimulate local choice policies depends on the particular social and political composition of the locality. He tested his thesis on four factors: the strength of liberal conservatism, the size of the middle class, ethnic diversity, and urban location based on data from 288 municipalities in Sweden. He found all four factors to be important, but the strongest factor enhancing choice policy is the strength of the middle class. He further argued that the individuals who are more likely to demand greater opportunities for choice are those "who themselves are well educated . . . and take keen interest in their children's education."[4] Hence, the propensity to choose one's school tends to vary among students of different socioeconomic status but tends to be facilitated by families belonging to a particular social class.

[4] This is an issue I develop in my later studies, further described below, using patterns of student and parental complaints and flow between schools as well as schools' working environment as explained by the degree of socioeconomic composition among schools. However, I do not go into detail regarding school class structure as I focus on the organizational level of analysis.

Health and disorder

Health is central to the sociological field of study but has thus far gained little attention in Sweden in relation to schooling and the potential consequences of the deregulation. The studies that do exist have tended to focus on the individual level, short study periods, a sub-sample of schools and regions, and self-reported data. These studies have also generally neglected neighborhood characteristics, which have been shown to play a central role in school choice, segregation, and student achievement, as explained earlier. There are few exceptions regarding economic-oriented studies that have looked at health. One longitudinal study found individual school principals to have a significant impact on the working environment (in terms of staff turnover and long-term ill teachers) and on student achievements (Böhlmark, Grönqvist, & Vlachos, 2012) as they move between schools. One cross-sectional study in 2008 investigated the relationship between class size and mental health among ninth graders in 40 schools and 159 classes in Swedish schools but found no effects (Jakobsson, Persson, & Svensson, 2013). Most studies on health, however, have been conducted by individuals in sociological sub-fields of social psychology, criminology, and public health. For instance, in a larger sample of 871 classes and 259 junior high schools in Stockholm between 2006 and 2010, Låftman, Östberg, and Modin (2017) found school climate to be related to the occurrence of bullying among ninth graders.

A cross-cultural comparison study between Stockholm and Helsinki on school segregation, school performance, and stress-related health among ninth graders found segregation to be higher in Stockholm, whereas stress-related symptoms were higher in Helsinki, which also tends to have higher student achievements on the PISA surveys (Modin, Karvonen, Rahkonen, & Östberg, 2015a). Social psychology research has found school climate in terms of students receiving support to improve students' health, whereas schools' work climate, in which students experience harassment, high levels of demand, and low level of control, to worsen students' health (Modin & Östberg, 2009; Modin, Östberg, Toivanen, & Sundell, 2011).

The Stockholm School Survey, which has been conducted every second year since 2004 to measure ninth grade students' and second year high school students' self-reported health-related issues, has been utilized by health researchers. Eklund and Fritzell (2014) studied the relationship between disadvantaged school settings (an index of the percentage pupils with highly educated parents, native origin, and mean marks) and pupils' increased risk of self-reported delinquency in 89 schools in Stockholm. They found that impulsive and sensation-seeking adolescents commit less crime if they attend more advantaged schools. Another issue studied from the Stockholm School Survey is the relationship between students involved in bullying and psychosomatic health complaints. The findings indicate significantly poorer health for students involved in bullying (both victims and bullies) than for those not involved (Modin, Låftman, & Östberg, 2015b). Researchers have also studied adverse home conditions, another factor studied explaining students' tendencies to commit offending acts, which may be moderated if students perceive schoolwork as meaningful (Sandahl, 2016). These relationships may also vary between gender at the individual level as well as by degree of offense (Låftman & Modin, 2012; Låftman, Modin, & Östberg, 2013; Sandahl, 2016). Self-reported health has also been found to be more strongly related to individual-level characteristics than to school characteristics (Nygren, Bergström, Janlert, & Nygren, 2014). However, none of these studies has taken into account neighborhood characteristics.

In her general argument against the rapidly increasing reports of juvenile violence in society to portray a biased image of reality, Estrada (2001) analyzed violence in Swedish schools among seven- to 14-year-olds as reported to the police by comparing the rate of reports between 1981 and 1992 and between 1993 and 1997, noting that the increasing rate of reported acts of violence can be explained by a shift in the propensity to report being primarily driven by victims or families to being driven by schools.

Organization of schools

There is a lack of studies on the organizational outcomes after the 1992 reform of the Swedish education system. The closest research, to the best of my knowledge, has been conducted by education scientists. They have shown a keen interest in the development of education methods and have been prominent in studying perceptions of competition and school choice among various school members, such as teachers (Lundström & Parding, 2011), principals (Holm & Lundström, 2011), students (Arreman, 2014; Lidström, Holm, & Lundström, 2014; Lindblad, Lundahl, Lindgren, & Zackari, 2002; Nilsson & Bunar, 2016), school owners, and municipalities (Arreman & Holm, 2011a; Arreman & Holm, 2011b; Dovemark & Holm, 2017). However, these studies have failed to attend to the macro perspective of organizational behavior whereby schools compete and are simultaneously influenced by regulations and other institutional constraints. Such studies can be found for US charter schools, which are closely related to Swedish voucher schools. I will briefly review these studies below.

Early studies on the organizational behavior of schools conducted in the United States were interested in how school funding and centralization shape schools' internal organizational structure and responses to institutional demands (Meyer, 1979, 1980; Scott & Meyer, 1984). The field was initially interested in individual outcomes in the form of student achievement but seemed to transition to the aggregate level of organizations and regions over time. The transition from the individual to organizational level began after criticisms that student achievement is better explained by socioeconomic status at the individual level (e.g., see Hannan, Freeman, and Meyer's [1976] critique of Bidwell and Kasarda [1975]). Similar issues were debated within the field of economics (e.g., see Goldberger and Cain's [1982] critique of Coleman, Hoffer, and Kilgore [1982]). Since then, research developments related to the organizational behavior of schools have moved toward a broader conceptualization of organizations as embedded in an institutional field and shaped by forces like regulation, politics, and competition (Arum, 2000).[5]

A more recent organizational study of US charter schools has evaluated state policy to adopt charter school regulations and subsequent charter school founding rates. Here, the authors found that states tend to adopt charter school policies by mimicking adjoining states but also if there is a dominant political party in the state as well as a mix of racial composition and the presence of a teachers' union (Renzulli & Roscigno, 2005). Variation in type of school founding has also been relegated to the institutional setting within a region in which the presence of particular forms of schools gives rise to the establishment of charter schools. More specifically, the existence of non-religious private schools increases the founding rate of charter schools, whereas an increased number of established charter schools tends to decrease the rate of additional charter schools (Renzulli, 2005). Environmental determinants of charter school closures (conceptualized as failure) have also been studied, with findings indicating that financial accountability is a stronger predictor of school closure than student achievement (Paino, Renzulli, Boylan, & Bradley, 2014).

Organization studies of schooling have also evaluated charter schools' innovation. Findings points to the fact that the norms of the institutional environment in which schools are embedded, such as parental influence and general ambiguity surrounding the notion of education as a market, tend to depress the diffusion of innovation and school practices (Lubienski, 2003; Renzulli, Barr, & Paino, 2015). One explanation may be that charter schools are innovative in the early phase of market evolution so as to contrast the older form (e.g., public schools) and thereby legitimate their entry. However, they tend to become similar to other schools once established (Davies & Quirke, 2007). The impact of organizations' quest for legitimacy (to gain access to resources) on their identity formation (in terms of differences and similarities of their organizational content) was studied in the early years of Arizona's charter school industry by King, Clemens, and Fry (2011). They argued that organizations need to look like other organizations

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[5] It should be noted here that early studies of schools' organizational behavior were influenced by neighborhood scholars who claimed schools had little variation relative to the surrounding community (Arum, 2000).

to gain legitimacy, which is wrought with uncertainty when the industry is not yet defined. Analyzing the content of 298 charter schools, they identified 38 elements that charter schools tended to select among (e.g., health services, curriculum, and target population) and found that schools tend to collectively develop similar identities over time to which later entrants claimed membership. They also showed that charter schools tend to differentiate selected elements when the availability of institutional resources is high (in terms of increased number of elements that could be selected and combined) and mimic similar sets of elements when the availability of resources is low.

Macro-level empirical studies on the organizational behavior of schools, which have progressed together with theoretical advancements in the research field of institutional organization theory (briefly reviewed in next chapter), are ambitious but have tended to focus only on a sub-sample of schools, regions, and time periods. They have also included different school sectors, such as elementary school and high school, in individual studies, which decreases the variation of the samples even more. I overcome these shortcomings, among others, with my dissertation by including all schools and regions while focusing on the high school level, as will be further described in the sections below and in the appended studies.

An organizational behavior perspective of schools is important as it enables a clearer understanding of school development after the reform beyond economic and regulative factors. For example, as previously described in the section on the economics of education, studies have not found competition to have any significant improvement on efficiency subsequent to the reform even though that was a central expectation. I tap into this issue by evaluating the influence of socially held norms on competition between schools, such as general opinions in society. I also attempt to expand the understanding of competition, which has been defined to occur within municipalities, by showing how competition between various types of schools may operate differently within and between municipality boundaries. I attempt to provide a nuanced understanding of the competitive development in Swedish schools by looking into different forms of schools in contrast to simply distinguishing between private and public schools. In addition, the approach taken for this dissertation also provides perspectives on quality as a result of increased competition and segregation between schools, which is evaluated by previous studies as educational achievement among students at the end of their study period as well as their pre- and post-educational standing. In contrast to these exogenous factors of quality in previous research, I evaluate endogenous factors affecting quality during the educational process by relevant actors, for instance, by parental and student complaints using Albert Hirschman's (1970) theory of exit, voice, and loyalty (further described in next chapter). I also evaluate how quality in terms of student disorder is related to between school competition and segregation.

3. INSTITUTIONAL ORGANIZATION RESEARCH

As noted, my primary theoretical perspective in this dissertation is organizational institutionalism. This perspective' enables me to develop an understanding of schools' development beyond economic and regulative factors. Below, I outline the basic tenets of organizational institutionalism with an emphasis on research done on schools.

This research stream, which is also called neo-institutionalism, refers to research that emerged in 1970 to contrast the traditional view of stability and equilibrium models with perspectives from organizational and economic actors that enabled a dynamic understanding of how institutions influence and are influenced by organizational change processes over time (Scott, 2008). The early developments of institutional theory were more concerned with evaluating the efficiency of for-profit firms "operating in highly competitive markets," such as the costs and quality of outputs. The new institutional theory, however, has contrasted this view by evaluating non-profit organizations and their conformity to legitimate practices (Palmer & Biggart, 2002). The assumption underlying institutional organization, which shares similarities with more the economic- and political science-oriented fields of industrial organization, decision making, transaction cost economics, and game theory (Scott, 2008), is that firms not only thrive due to rationalized market forces but also due to efficiency constraining normative and cultural settings in an organizational field (DiMaggio & Powell, 1983). An organizational field is commonly defined as "a population of organizations operating in the same domain as indicated by the similarity of their services of products . . . and different organizations that critically influence their performance, indicating exchange partners, competitors, funding sources and regulators" (Scott, 2008: 86). Thus, organizations are assumed to be embedded in a network of stakeholders, which may both enhance and inhibit organizational development (DiMaggio, 1988). In the case of the education system, the field may "comprise . . . a set of schools (focal population) and related organizations such as district offices, state and federal funding agencies, parent-teacher associations, and teacher unions" (Scott, 2008: 86). Studies on organizational fields are usually conducted over a longer time period.

Schools and the school sector have been an important empirical setting for testing and extending the sociologically influenced neo-institutional theory—as well as the other major macro theories of organizations, including organizational ecology—when developing the concepts of inertia, resource dependency, legitimacy, competitive density, and organizational structure (Carroll, 1981; Freeman, 1979; Meyer, Scott, & Strang, 1987; Meyer, 1977; Nielsen & Hannan, 1977; Strang, 1987). Schools and the school sector have also been featured in recent theoretical notions of identity and organizational forms (Hsu & Hannan, 2005; King et al., 2011). These theoretical areas constitute the theoretical foundation of my dissertation.

The organizational ecology of institutional change

Organization ecology shares many similarities with institutional theory but is, among other factors, distinguished by its focus on organizational populations rather than its external institutional arrangements, which is assumed to influence the development of an organizational population (Amburgey &

Rao, 1996). Organizational ecology research is also distinguished from institutional theory by its focus on competition among organizations, which is central to my general research question on the consequences that arise when organizations are made to compete. Organizational ecologists have studied the emergence and survival of organizations, exploring particular forms of organizations as well as the overall dynamics of populations of organizations. Organizations of a particular form are assumed to arise and grow in number as the form gains legitimacy up to a point where scarce resources stagnate the rate of entries. At this point, the population transitions into a period of competition in which the number of organizations decreases through exit (Carroll & Hannan, 2000). Research in this tradition usually measures the dependent variable as the number of founded or exiting organizations of a particular form within a time period and the independent variable as the density of the form (i.e., number of established organizations). A common critique of this research is that organizational ecologists assume that density captures the legitimacy of an organizational form based on its prevalence, not based on the process by which legitimacy occurs (Baum & Powell, 1995; Zucker, 1989).

Some scholars have sought to combine notions of institutional and ecological organization theory, for example, by using more direct measures of legitimacy in terms of institutional linkages among childcare centers in Toronto, Canada, to enhance organizational survival (Baum & Oliver, 1991). Organizational ecology also tends to see organizations as inert—meaning that organizations cannot change their core features but only peripheral characteristics in order to survive (Hannan & Freeman, 1984). This understanding has been advanced in recent theoretical and empirical work, where organizations possess an identity that is shared among a set of organizations as defined by the external actors who make up the organizational form, with penalties being exerted on organizations that deviate from that identity (e.g. Hsu & Hannan, 2005; Pólos, Hannan, & Carroll, 2002; Zuckerman, 1999).

Organizational form and identity

To study institutional change, it is important to understand organizational forms. Although organizational forms are implicitly assumed in school research (e.g., when evaluating the effect of reforms on previous public sectors and the emergence of private schools), a deeper understanding of organizational forms may provide an enhanced understanding of organizational dynamics (Hsu & Hannan, 2005). In contrast to the economics of organizations, which assumes that all organizations within a market compete directly, ecology studies instead distinguish between different forms that may be more or less interdependent (Carroll & Hannan, 2000: 65). In the education system, organizations may compete with each other more or less depending on their legal form and whether they are for-profit or non-profit oriented schools. Organizational forms are important in the study of competition as they reveal the history of an organizational population and "discontinuities in social identities" (Rao, 2002: 542). Recent research on identity and forms has been less concerned with organizational structure, focusing instead on the "perceptions of audience members when specifying forms and their boundaries" (Negro et al., 2010:8). The specification of identities and forms by the perception of relevant audience, stems from early studies on organizational structure arguing that organizations in a field are "loosely coupled" and only formally conform to institutional pressure as a symbolic gesture to gain legitimacy among key stakeholders while keeping their informal structure unchanged (Edelman, 1992; Meyer & Rowan, 1977).

Key stakeholders in research on organizational identity are usually referred to as the audience. Audience members are defined as "collections of agents with an interest in a domain and control over material and symbolic resources that affect the success and failure of the claimants in the domain" (Hsu & Hannan, 2005: 476). In this context, it is held that clear "membership in categories both enables and constrains organizations because it establishes the features and behaviors that are expected of organizations and shapes the way audience members evaluate organizations" (Negro et al, 2010). Thus, organizational identity is complex, and different audience members may have their own views on identity. Organizations may also have varying ability to invest in diversified sets of identities to communicate to different audiences. For instance, schools may be identified by audience as "'grades of students taught,' 'sources of funding,' and 'degree of affiliation with religious institutions.'" (Hsu & Hannan, 2005:481).

Empirical research on organizational forms as defined by audience members has primarily focused on external stakeholders, such as the emergence of 48 organizational forms in the US health care sector or financial performance penalties as a result of absent coverage by industry analysts among publicly listed firms in the United States (Ruef, 2000; Zuckerman, 1999).

The studies in this dissertation not only consider the influence of external audiences on schools' organizational forms based on public opinion and politics but also explore the organizations' legal forms and the perceptions of internal audiences, including students and parents. This approach raises different yet complementary questions about organizational forms and identity formation with consumers expressing dissatisfaction after entering the organization. The perception on organizations by an internal audience is possible by incorporating Albert Hirschman's (1970) exit, voice, and loyalty theory, which serves as the main theoretical concept in Study 3 of this dissertation but is also imprinted in the other studies (the studies are summarized in next chapter). In Study 1, I use the traditional view of external audiences' perception of organizational forms.

Exit, voice, and loyalty

Hirschman's (1970) theory of exit, voice, and loyalty originally grew from economics and political science, formulated as a potential consequence of introducing private alternatives to the public school system. Hirschman suggested that traditional views rooted in economic thinking relied excessively on the notion of exit (i.e., loss of customers) and that more attention needed to be directed toward the use of voice (i.e., complaints). A main concern was how these two concepts could be reconciled. A key conclusion in line with Hirschman's original prediction is that with ease of exit (e.g., through market deregulation) follows a decline in the use of voice by employees and consumers. According to the original model, exit crowds out voice since leaving is less costly than enabling voice (Hirschman, 1970). Stakeholders' voice is also more informative as feedback for the organization. A less explored feature of Hirschman's work, however, is the concept of loyalty. According to Hirschman, exit will crowd out voice only to the extent that customers or organizational members do not feel loyal to a producer. When there is loyalty, an organizational member may choose to stay with the organization but voice a complaint to improve the organization's functioning.

Definition of exit

In Hirschman's theory, exit is defined as "the act of simply leaving, generally because a better good or service or benefit is believed to be provided by another firm or organization. Indirectly and unintentionally exit can cause the deteriorating organization to improve its performance" (Hirschman, 1993:175-6). Further, in operational terms, "exit is a dichotomous [and] voice a continuous variable. One may only signal disapproval by exiting to a rival product on offer, but may voice the sort of products one might like" (Dowding, John, Mergoupis, & Vugt, 2000:471). The exit option in Hirschman's (1970) theory has been shown to be difficult to empirically distinguish from the other options (Barry, 1974; Laver, 1976), particularly in formerly monopolized sectors with high consumer switching costs and the presence of loyalty toward other organizational stakeholders. In terms of the school sector, consumers may be more loyal to their providers due to both perceived switching costs and existing interpersonal relationships with teachers, other students' parents, etc.

Definition of voice

Voice is defined in Hirschman's theory as "the act of complaining or of organizing to complain or to protest, with the intent of achieving directly a recuperation of the quality that has been impaired" (Hirschman, 1993:176). The voice option is also assumed to be indirect. "Indirect voice involves appealing to outside authorities with power over poorly performing organizations, or appealing to organizations without formal authority but with the ability to 'make trouble' for declining organizations" (Kolarska & Aldrich, 1980:56). An indirect effect of voice is its ability to alert

> less sensitive consumers to the new situation . . . a positive feedback subsystem, tending to 'heat up' the whole process, so that, even with no further decline, the Voice of the more sensitive will prompt more dissatisfaction (hence Exit and Voice) from the less sensitive. (Laver, 1976:469)

Research has also distinguished between direct and indirect negative voice, the former defined as complaints from an employee or a customer to a focal organization (Singh, 1990) and the latter as complaints to a third party, such as a government agency or labor union (e.g. Davis-Blake, Broschak, & George, 2003; Luo, 2007). In Hirschman's theory, voice is enhanced if there is a lack of organizational alternatives, such as in an oligopoly or monopoly structure, and also if stakeholders have some level of support and protection from the potential negative consequences of raising their voice (Barry, 1974; Kolarska & Aldrich, 1980; Laver, 1976; Near & Miceli, 1986).

In contrast to exit, "Voice really makes sense only if we specify its volume. People can shout loudly or softly, while the louder they shout, the more likely they are to be heard and the hoarser they get" (Laver, 1976:476). Individually, the volume of voice can be reflected by the severity of the complaints against an organization, for example, writing a letter of complaint versus organizing a protest. Collectively, the volume of voice can be reflected by an account of the number of people complaining or the type of issues complained about. In this dissertation, I use such a collective measure to gauge the volume of voice raised against a school.

Definition of loyalty

While I attempt to directly measure exit and voice as proxies in Studies 3 and 4, similar to most other studies drawing upon Hirschman's theory, I only theorize about loyalty and therefore briefly define it here:

> As a rule . . . loyalty holds exit at bay and activates voice. . . . The importance of loyalty from our point of view is that it can neutralize within certain limits the tendency of the most quality-conscious consumers or members to be the first to exit. (Hirschman, 1970:78-9)

The loyalty construct has received much theoretical criticism and is often viewed as the least understood component of Hirschman's theory (Barry, 1974; Laver, 1976). Loyalists are "future-oriented consumers faced with short-term decline, confident consumers, and optimists . . . who are betting on recovery" (Laver, 1976:481). What Barry (1974:99) believed Hirschman wanted to say about loyalty

> is that the experience of having had influence in a collectivity and the expectation of having influence in the future tend to increase a person's commitment to that collective…. And since…the more influential, tending to be more loyal will also tend to be more active in exercising voice even if in a given case they do not expect it to be effective.

Institutional perspectives on organizations provide an integrative framework for understanding the consequences for schools when they are made to compete. In essence, institutional organization research explores organizations' interdependence with external institutional arrangements, inter-organizational competition with similar forms and identities, and the subsequent behavior of internal organizational members. I address these internal and external perspectives of organizations in four separate papers that are summarized in the next chapter. The summary is then followed by a discussion of my contributions with specific emphasis on the unintended results for of organizations when they are made to compete.

4. SUMMARY OF RESEARCH PAPERS

I have conducted four empirical research papers that constitute my dissertation. The unifying theme of my research papers is competition between schools with varying organizational forms (types of schools), focusing on the role of various influential stakeholders' internal and external to organizations, such as parental and student complaints, public opinion, and regional politics. The main goal of the papers is to examine the organizational behavior of schools at the macro level of analysis when they are made to compete. I focus on the high school level throughout my studies as high schools are exposed to competition more than elementary schools. While the voucher school reform was implemented in 1992, enabling private firms to enter and establish schools, it was not until a decade later that the effects began to gain significance in research on the economics of education (Böhlmark & Lindahl, 2015). Organizational population studies, however, have also been interested in the early development of market evolution. I primarily address this in the first two studies of this dissertation, which are concerned with the legitimacy of early entrants into voucher schools and the development of the two largest school owners. These papers include different observation periods. The first paper uses the earliest observation period starting from the reform in 1992 following its development until 2011. Study 2, on the other hand, follows the two largest school organization owners since they were established in 1998 until one went bankrupt in 2013. The last two studies in the dissertation cover the study period between 1999 and 2011 and are primarily interested in when competition between schools in the education sector intensified.

Table 1 below briefly summarizes the four studies of my dissertation. Three levels of analysis (national, regional, and school) and five formulations of organizational forms (public, private, corporate, non-profit, and for-profit) are used. All studies look at multiple levels to understand competitive effects among schools. For instance, in Study 3, I argue that variation in complaints occurs at the individual school level while being partly driven by competition that occurs at the regional level—a pattern shared by all schools. Another reason I use multiple levels is to understand how institutional factors at the regional or national level manifest in organizational formation at the regional level (Study 1). All studies except Study 2 use quantitative regression analysis. Although quantitative panel data is used for descriptive purposes in Study 2, the main approach is a longitudinal comparative case study.

In contrast to most previous studies on Swedish schools that have defined competition at the municipality level, I use regions consisting of several municipalities that are connected by a common school market based on student mobility across municipality boundaries. This approach has been validated by the Swedish National Agency for Education (Skolverket, 2011) and is used to accommodate for the fact that individuals in neighboring municipalities can and often do commute across municipality borders at the high school level. Further, most previous research on Swedish schools has used the distinction between public and private schools to assess competition. I distinguish between private schools based on their legal forms and their for-profit or non-profit status as well as based on additional subforms. There exceptions of studies on Swedish schools that have also made the distinction between for-profit and non-profit voucher schools (e.g., see Angelov & Edmark, 2016; Vlachos, 2011). While Study 1 uses the broader organizational classification of private schools driven by for-profit and non-profit school organizational forms, Study 2 provides a more detailed comparison of the two largest for-profit school organizations running multiple schools across the country as corporate entities. While multiple school owners are assumed to be included in the for-profit school form in Study 1, Studies 3 and 4 use a more direct measure of all multiple school owners—denoted as corporate schools—versus single-owned schools—denoted as private schools. Public schools are only included as a control variable in Study 1, whereas Study 3 and 4 also include public schools in the dependent and independent variables. To my knowledge, my studies are the first to include corporate group schools as predictors of school outcomes over time.

A caveat for the simple distinction of for-profit and non-profit voucher schools used in Study 1 is that they are based on their legal forms and not on their actual profits or profit intentions. There is a rather large literature on non-profit organizations, with some studies arguing that non-profits may actually be for-profits. Similarly, I cannot exclude the possibility that a school with a for-profit legal form may actually operate differently than a school with a non-profit legal form (Hansmann, 1980; Rainey & Bozeman, 2000).[6] Although I made attempts to theoretically motivate and empirically control for my specification of non-profit and for-profit voucher schools, they are by no means exhaustive. An alternative approach for classifying organizational forms has been to measure how external audiences identify a focal organization (Hsu & Hannan, 2005; Ruef, 2000; Zuckerman, 1999). I did not pursue this approach for two reasons. The first reason is simply data limitation. The second reason is my research approach, specifically with respect to Studies 3 and 4, is more interested in the role of internal audiences, including students and organizational members, through complaints, exit and, disorder rather than the ways audiences' perceptions shape schools' identities. After all, the purpose of this dissertation is to provide a meaningful understanding of the voucher school sector's development.

Put simply, the logic of my studies is to first study the factors underlying the emergence of the voucher school sector after the deregulation. Specifically, I evaluate three legitimacy factors explaining the founding patterns of particular types of voucher schools. Second, I delve into the dynamics of and interrelationships between the two largest voucher school organizations and the surrounding environment of political forces that have under-

[6] A relevant issue to this end is that non-profit schools in the United States may receive donations, which is forbidden in Sweden as are all kinds of fees.

pinned much of the public debate in Sweden. The main interest here is to explain organizational survival based on organizations strategic response to institutional demands in such debates. Research on the ecological development of organizations has commonly either included both founding and survival rate analyses together or in separate studies. Given the extensive approach used to examine founding rates in Study 1, I choose to study founding and survival rates separately in Study 1 and Study 2. Third, I look at the consequences of competition for the overall functioning of organizations in society, specifically the relationship between competition and segregation as well as the process by which segregation occurs. Fourth, I study the relationship between competition and schools' working environment using the extreme measure of student violence.

The findings can be summarized as follows. In Study 1, I find that more deviating organizational forms contribute to the legitimacy of voucher school foundings more than less deviating forms at the national level but that the relationship is reversed at the local level. In Study 2, I find that organizational conformity to institutional demands may only be a short-term benefit for survival and may translate into failure in the long run. In Study 3, I find that competition may lead to increased student segregation using specific measures on how organizational actors partake in the process. In Study 4, I find that competition may enhance schools' working environment, specifically that it may reduce school violence. In the next section, I discuss the contributions of my dissertation.

Table 1. Brief summary of research studies

Study	*Research questions*	*Dependent variable*	*Independent variable*	*Level of analysis*	*Method*	*Types of schools*
1	How is deviation in legal form related to normative legitimacy for new organizational forms?	Foundings	Public attitudes, School density, Politics	Region, national	Negative binomial regression analysis	For-profit, non-profit
2	How are organizations' responses to institutional pressure tied to organizational structure? Does organizational response to institutional pressure differ at different stages in an organization's growth or decline?	Survival	Conformity, resistance	2 Schools	Longitudinal comparative case study	2 corporate schools (multi-school chains)
3	Do competition lead to segregation? What is the mechanism behind segration beyond student self-selection?	Student flow, complaints, segregation	Competition (Herfindahl index), advertisment spending, school organizational form, socioeconomic status	School, region	Multilevel regression analysis, general Least Squares regression analysis	Public school, private school (standalone), corporate school (multi-school chains)
4	How does organizational competition relate to school violence?	School violence	Competition (Herfindahl index), segregation (Gini index), neighborhood (income and crime rate), school size	School	Multilevel regression analysis	Ibid.

Note: The research questions in the papers differ somewhat from this summary table.

5. CONTRIBUTIONS OF MY DISSERTATION

Each of the four research studies summarized in the previous section, which are fully presented in the appendix below, seeks to contribute to organization theory, education research, and public policy. While the contributions partially answer the general research question of what the consequences are when schools are made to compete, the dissertation also raises several important new questions and dilemmas. Specifically, I believe we can improve our limited understanding of the unintended nature of institutional change (e.g., as shown in the relationship between competition, segregation, and school violence) only by conducting additional interdisciplinary research. The first two studies in this dissertation are more organizational in nature, whereas the last two studies are a combination of the three reviewed research fields of economics, sociology, and the organization of education. All of these studies explore competition and hence contribute to research on the economics of education focusing on the competitive aspects of schooling after deregulation. Before extending the discussion of my contributions, I will shortly present the contributions of each research study as well as their value and implications below.

The first study contributes to the ecological understanding of the emergence of Swedish schools as organizations in which the organizational population first goes through a period of moderate competition and legitimacy before entering a period of intensified competition. This study is positioned at the intersection of research on institutional change and research on the emergence of new organizational forms to show how initiatives to change institutionalized aspects of market structure are driven by ideology and activities beyond market-based competition. Specifically, I illustrate how the choice of ownership form when populating a new regional market is guided by the particular form's fit with higher-order norms of what the form is suitable for. However, as the for-profit corporate form increases in popularity, the meaning of legitimate education providers in the institutional field is destabilized. These findings suggest an interplay between inter-organizational processes of competition and isomorphism (i.e., the process by which organizations becomes similar) in this field. While the first voucher schools owned by corporate entities faced much more resistance from politicians and the media than later entrants did, the mere presence of voucher schools owned by corporations seems to have triggered a process of legitimation of this organizational form among key actors. My finding furthers recent work emphasizing the dual forces of inter-organizational competition and the institutional environment in explaining organizational isomorphism. While structural isomorphism may shape organizational evolution in the long term, in the short term, market-based competition may lead to the domination of contested forms with "illegitimate" practices in an organizational field.

The second study contributes to research on organizational responses to institutional demands. Specifically, Study 2 shows how the distinction between organizational conformity and resistance to institutional demands is not as straightforward as earlier theorized. Both conformity and resistance may be equally important for organizations' performance and subsequent response to institutional demands. As suggested by my case studies, organizational structure and ties to external stakeholders may make resistance more beneficial for organizational performance in the long run, whereas conformity may provide only short-term benefits for organizational performance. Specifically, this study questions the notion that organizational survival hinges on conformity to institutional demands. By incorporating the concept of turnaround, I theorize that there are unintended effects of organizations conforming to rather than resisting demands from stakeholders external to the system when enacted as a second mover.

The third study contributes to research at the intersection of economics, sociology, and the organization of education. Specifically, this study extends Albert Hirschman's (1970) exit, voice, and loyalty theory and ties this to research to schools. In line with previous research, I find a positive relationship between competition and segregation, but more importantly, I provide an underlying explanation of the process by which segregation occurs. Economic and sociological research on segregation as a result of competition has primarily relied on explanations of students' self-selection and differences in students' ability to exert choice. Organizational factors as well as their relationship with different groups of students have by and large been neglected. This study's findings suggest that organizations are active actors in attracting and repelling students, which subsequently manifests in enhanced segregation between schools at the aggregate level. Thus, I show how competition may affect the functioning of organizations in society.

The fourth study is to the best of my knowledge the first to show the influence of inter-organizational competition between schools in terms of the occurrence of school violence by combining both organizational and neighborhood characteristics. First, as shown in the previous study (i.e., Study 3 of this dissertation), competition tends to be positively associated with segregation. In this study, I further argue that increased school choice among students not only pushes students toward similar others but also increases the social capital, such as perceived trust and safety, among students and organizational members. I also argue that residential segregation and student exposure to adverse neighborhood characteristics, such as poverty and crime, are related to the likelihood of school violence but are mitigated by competition and students' ability to attend schools outside their neighborhood.

Taken together, these contributions suggest there is a "black box" in our understanding of how schools as organizations are affected by competition. Are certain types of schools locked out or simply not created despite the potential need? To what extent does the legitimacy process uncovered in my studies of the education system limit or enhance schools' ability to innovate? My findings suggest an increase in segregation as competition between organizations intensifies through strategic action that attracts and repels students but unexpectedly also a decrease in the level of school violence. More understanding is needed here. For instance, is there a tradeoff between increased satisfaction and improved working environment and students' grade performance? The 2015 PISA study on students well-being suggests that students in most OECD countries exhibit less life satisfaction when they are not as wealthy as other students in their school, but they nevertheless exhibit higher aspirations to earn a university degree (OECD, 2017). As presented earlier in the literature review in Chapter 2, a cross-cultural comparison between Stockholm and Helsinki showed that the former exhibited higher levels of segregation between schools but lower levels of stress among students (Modin et al., 2015a). Finland, where Helsinki is located, also has among the highest rated education system among OECD countries with respect to student abilities (OECD, 2011: 117). My studies also suggest the importance of macro-oriented school research for multi-level studies (e.g., see Hedström & Swedberg, 1998; Kim, Wennberg, & Croidieu, 2016). Adding an individual level may further clarify my results as well as nuanced environmental factors. Naturally, it is important to note that my studies include limitations and conditions that may reduce the generalizability of the findings, which is described further for each study in the appendix as well as in my suggestions for further research.

Implication for public policy

The findings of my studies also contribute to public policy discussions on education. Specifically, my findings suggest the importance of more deeply considering organizations' role—not just the education system—when seeking improved education. While much of the debate has focused on the pros and cons of specific organizational forms, such as for-profit schools, the overarching results of my studies suggest an interrelationship between and within various organizational forms. School organizations both influence and are influenced by public debate, which is likely to have an effect on schools' overall legitimacy and competitive development. As such, the institutional setting is imperative for school organizations' functioning as well as for the overall structure of the society in which these organizations are embedded. As a population of organizations, schools may also be interrelated with other organizational populations that are not salient at the moment but may gain legitimacy when the current population loses legitimacy (e.g., see Hiatt, Sine, Tolbert, 2009). The lack of such understanding in the debate may therefore bring unintended consequences to the system. These are important questions since legitimacy and access to resources are vital for organizational survival. Further, school operations may be calibrated toward current debate, and if alternative issues are omitted from the debate, this may subsequently hurt rather than benefit school quality. There is likely to be a tradeoff among alternative issues, as shown by my results where competition may increase segregation but may potentially also mitigate school violence. This dilemma and the role of educational organizations in society beg for further attention.

Apart from the organizational side of the public discussion on improving school quality, another aspect in this discussion is the role of families within organizations and their ability to affect schools. As indicated by Study 3, families may be more or less engaged in schools as a result of declining quality depending on their socioeconomic status. Two options were evaluated—exit (students leaving a school) and voice (parents and students complaining about a school). To avoid a circle of reproduction, policy aimed at directing organizations toward a particular path to favor disadvantaged students should also direct efforts to strengthen disadvantaged students' ability to raise their concerns within schools through complaints. Take, for instance, the current debate on regulating the profit levels of school organizations in order to increase reinvestment in school operations. While this may influence the school system's competitive landscape, for instance, by increasing the rates of non-profit schools, it may not necessarily guarantee quality improvement if parents' and students' ability to complain or their ability to exit and migrate between schools remains unequally distributed between advantaged and disadvantaged students.

If the proposition to limit profits is fulfilled and the number of established schools declines (it may also decline due to changes in commonly held norms, not only due to legislation, as demonstrated by Study 1), this may decrease competition and inhibit students' ability to change schools if the perceived quality of the focal schools are declining. As suggested by my results in Study 4, competition between schools is associated with schools' working environment. However, Study 4 also suggests a fundamental problem associated with schools' working environment being dependent on characteristics of their surrounding community. Hence, rather than focusing on schools per se, attention should also be directed toward the overall quality of life in local communities and students' exposure to adverse social issues. More studies are needed to evaluate relevant characteristics of schools' surrounding community and their impact on school outcomes.

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