

CHAPTER 4

SCHOOL STRUCTURES AND STUDENTS' OUTCOMES

INTRODUCTION

In the family-school model in Chapter 1, I proposed that relationships between distal family background and students' school outcomes are mediated, in part, by school structures and that the associations between these structures and outcomes vary for students from different backgrounds. Bourdieu (1998, p. 22) claims, for example, that "the school, once thought of introducing a form of meritocracy by privileging individual aptitudes over heredity privileges, actually tends to establish, through the hidden linkage between scholastic and cultural heritage, a veritable social nobility."

In this chapter I expand the analysis of the theoretical model and review research that has investigated school structures and examined relationships between different structural forms and students' school outcomes. Parents in many industrialized countries are increasingly choosing various forms of non-government supported schools for their children's education. I begin the chapter by considering some general findings about the characteristics of schools in different sectors and, in particular, examine a conceptual orientation which proposes that schools might be defined as being either norm-enforcing or horizon-expanding. At a less general structural level than school sector, schools differ in their social and academic organization. I explore theoretical and empirical analyses that consider, for example, the potential impact on students' outcomes: if schools are more bureaucratic than collegial; if teachers are organized so that their relationships are individualized rather than collaborative; and whether schools respond in a meaningful manner, or at a surface level to major reform initiatives.

As researchers have examined the organization of schools there is a major associated question that has been asked: What are the characteristics of an effective school? In the second section of the chapter I review some of the contributions to school-effectiveness research. One of the major issues of such investigations has been how to assess the effect that different schools have on the outcomes of students from diverse family backgrounds. In general, school-effectiveness research has adopted large-scale survey approaches to the analysis of schools. I use autobiographical data to make the point that we need complementary qualitative investigations of schools to enhance our understanding of how students and teachers interpret the effectiveness of their schools.

Perhaps the most studied and controversial characteristic of a school's structure is the form of ability grouping that is adopted. In the final section of the chapter, I

present findings from analyses that have examined relations involving family background, ability grouping and students' outcomes. A number of the latter investigations demonstrate the intricate nature of the associations between family and school capital and students' attainment.

In general, the studies that are examined in this chapter support an underlying premise of the mediation-moderation model that the interactions between families and schools need to be explored if we are to understand family background differences in students' outcomes. The investigations that I present are classified into the following overlapping categories (a) the organization of schools, (b) school-effectiveness research and (c) instructional structure: ability grouping.

THE ORGANIZATION OF SCHOOLS

At a general level of analysis, school structures may be defined by distal characteristics that are often considered to be associated with differences in students' educational outcomes. These features include, for example, whether students attend government or non-government administered schools and the nature of the social and academic organization of schools. Such distal influences, in relation to students' performances are examined in this first section of the chapter.

School Sectors

A question asked increasingly by parents is: What benefits do children obtain by attending either government or non-government schools? An example of the passion associated with the question is reflected in the experience of a student from an economically deprived area of England, who in 2000 was not accepted by Oxford University to study Medicine (Miller, 2000). It is reported that the record of the student's entrance interview stated that while she was outstandingly intelligent, she lacked in confidence as did many other state school pupils. The Chancellor of the Exchequer complained that the rejection of such an able student was an absolute scandal and she was "the victim of an interview system that is more reminiscent of the old boy network and the old school tie than genuine justice in our society" (Ward, White, & Smithers, 2000). Although universities and independent schools suggest that the reporting was ill-informed, the individual experience relates to the larger concern about the imbalance in the proportion of students from independent schools who are admitted to England's (and other country's) elite universities, in relation to the numbers from state schools.

An example of research that has examined school-sector differences in students' outcomes is provided by analyses in the United States of the possible benefits of attending a Catholic rather than a state (public) school. In an investigation using data from the High School and Beyond study, Bryk, Lee, and Holland (1993) conclude that in relation to state schools, Catholic schools achieve relatively higher levels of student learning. Furthermore, it is suggested that in Catholic high schools, successful learning is more equitably distributed for students from different race and

social-status backgrounds and that students express higher levels of engagement with schooling.

Bryk et al. (1993) observe that Catholic high schools often work better than other schools, not because they have more qualified teachers or more academically-oriented students but because they are voluntary communities. They suggest that in such communities, social relations are "characterized by trust, that constitute a form of 'social capital'" (p. 314). As a result, it is proposed that Catholic high schools may, in general, be defined as bridging institutions with two major dimensions. First, an orientation "toward children and their families that is grounded in an appreciation of the worth of each person without regard for outward appearance, customs or manners" (p. 316). That is, these schools convey to students and parents that they are concerned greatly about security, personal well-being and engagement with schooling. Second, a clear recognition by schools that while they are concerned about the social and moral well-being of students, they must also educate their students so they are comfortable with, and able to operate in, a competitive market-oriented society.

The organizational capital of effective Catholic high schools is defined by Bryk et al. (1993) as being characterized by (a) a delimited curriculum core which includes the elements of an appropriate humanistic education, associated with a limited number of electives, (b) a communal organization that is expressed by the collegiality of teachers, the large number of school activities involving students and teachers and by a set of shared beliefs about what students learn, (c) a decentralized system of governance that allows most decisions to be made at the individual school level and (d) an inspirational ideology characterized by caring and social justice and which affects the direction of school policies.

In a further analysis of the relationship between school-sector type and students' outcomes, Lee, Chow-Hoy, Burkam, Gevert, and Smerdon (1998) examine whether attending Catholic, non-Catholic private, or state (public) schools is related to students' course taking in mathematics. The study explores the questions "Do private schools have independent effects on students' pursuit of high-level course work, beyond the types of students they attract? If so, are there differences between how Catholic and independent schools affect their students in this regard?" (p. 315). Using hierarchical linear modeling to examine data from the High School Effectiveness study, Lee et al. (1998) investigate the implications for students if schools adopt either a differentiated or a constrained curriculum orientation. The differentiated approach accepts that different curricula should be offered to students with varying abilities and school attitudes. In contrast, the constrained-curriculum orientation reflects an educational ideology that all students should pursue a common set of academic goals and share similar academic experiences.

The findings from the study show that after taking into account family background differences and earlier mathematics performance, students who attend private rather than state schools enroll in more advanced mathematics courses. In addition, after controlling for student selection variations among schools, Lee et al. (1998) conclude "both types of private schools are following the constrained curriculum model and that the Catholic schools are using this model without a

particularly selective clientele. We wonder why this curriculum model – with obvious benefits to all students – is not more widespread” (p. 329).

It should not be assumed, of course, that schools in any one sector are characterized by uniform qualities and equality of student outcomes. In an analysis involving Australian Catholic schools, Mok and Flynn (1997) examined relationships between students’ perceptions of the quality of school life and Year 12 academic achievement. The findings, from multilevel analyses, show considerable differences in students’ achievement among the schools and that perceived school quality had a significant impact on achievement, over and above measures of students’ characteristics and family background. In addition, when school effects were examined, students in high social-status Catholic schools outperformed by a large amount, students from medium and low social-status Catholic schools. Furthermore, females and males in high status single-sex schools had higher Year 12 achievement scores than did students in any other Catholic school setting.

Norm-Enforcing or Horizon-Expanding Schools

The often controversial nature of findings from investigations about the potential benefits of attending state or non-government schools is reflected in a study by Morgan and Sorensen (1999a) and by responses to their study (Carbonaro, 1999; Hallinan & Kubitschek, 1999). Morgan and Sorensen (1999a) examine whether social capital generated by social closure among parents in school communities accounts for any of the apparent academic advantage gained by US students attending Catholic, rather than state, schools.

For the analysis, schools are defined as either norm enforcing or horizon expanding. While norm-enforcing schools are characterized by strong bonds among students, teachers and parents, their distinguishing feature is considered to be the strong relationships that develop among parents. It is proposed that Catholic schools are particularly effective norm-enforcing schools “as they can appropriate as social capital all of the social bonds maintained in a more encompassing functional community, the church” (p. 663). In contrast, it is suggested that parents who send children to horizon-expanding schools devote less time to the development of interpersonal relations with the parents of their children’s friends. Instead, these parents devote more time in investing in social capital outside the immediate school environment.

The investigation examines gains in mathematics achievement between the 10th and 12th grades, for students from Catholic and state schools who were sampled in the NELS data collection. In the analysis, two questions are explored: “Is social capital, in the form of social closure, associated with increased learning in mathematics? Can social closure explain a substantial portion of the Catholic school effect on learning?” (p. 662). The findings of the study show that social closure among parents failed to explain any substantial portion of the Catholic school effect on learning. Moreover, in the state sector, the social capital associated with horizon-expanding, rather than with norm-enforcing, schools had stronger associations with students’ learning in mathematics.

Morgan and Sorensen (1999a) conclude that the most likely explanation of the Catholic school effect on learning is that students in Catholic schools are more often placed in college preparatory courses with more challenging curriculum offerings. They indicate "Our findings support this explanation, as our mathematics course-taking model demonstrates that 60 percent of the baseline Catholic school effect can be accounted for by covariates that measure differential course-taking patterns" (p. 675).

In a follow-up study, Carbonaro (1999) is critical of the Morgan and Sorensen investigation. He suggests, it is impossible to distinguish between horizon-expanding and norm-enforcing schools using the NELS data. As a result, Carbonaro claims that the conclusion which suggests the benefits of horizon-expanding schools outweigh those of norm-enforcing schools is not supported by the analysis. His own investigation of the data shows that 'friends in school' is the only social capital measure to be associated with mathematics performance. Carbonaro (1999) indicates some of the potential limitations of large-scale quantitative family-school capital research when he observes:

Although the NELS data have some limited information about the *size* of parent-child-friend-parent networks, it has no information on *how parents use those connections*. The question remains, what do we learn from information about the former when we have no information on the latter. ...To resolve these ambiguities, future researchers must collect data on how parents in closed networks interact with one another, and also gather information on parents' values. (p. 685)

In a further critical comment of the Morgan and Sorensen study, Hallinan and Kubitschek (1999) suggest that the differentiation between norm-enforcing and horizon-expanding schools is ambiguous and confusing. They observe:

If the sole basis for the definition of these terms is the density of internal and external parental networks, one should find schools that are both norm-enforcing and horizon-expanding and schools that fit neither description. One should find schools in which most of the internal parental networks support academic achievement, schools in which most of the internal parental networks work in opposition to achievement, and schools in which networks have mixed effects. (p. 688)

In addition, Hallinan and Kubitschek argue that the social capital measures in the original study are inadequate to capture the complexity of parents' social closure in school communities. They suggest that because of the methodological and measurement limitations of the initial investigation, it isn't possible to determine whether social closure among parents is related to the Catholic school effect on students' learning. In a response to the criticisms of their research, Morgan and Sorensen (1999b) indicate:

With a careful analysis of the best available data, the well-studied Catholic-school effect on mathematics achievement cannot be explained away by any specification of network closure variables. Our secondary conclusion is more controversial...horizon-expanding high schools foster more learning than do norm-enforcing high schools. (p. 700)

Although the debate about norm-enforcing and horizon-expanding schools is inconclusive, it does raise theoretical and methodological issues about the investigation of relationships between distal organizational structures and students' outcomes. The research indicates the need to define and measure more clearly the

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Marjoribanks, K.

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