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Family Income and School Success

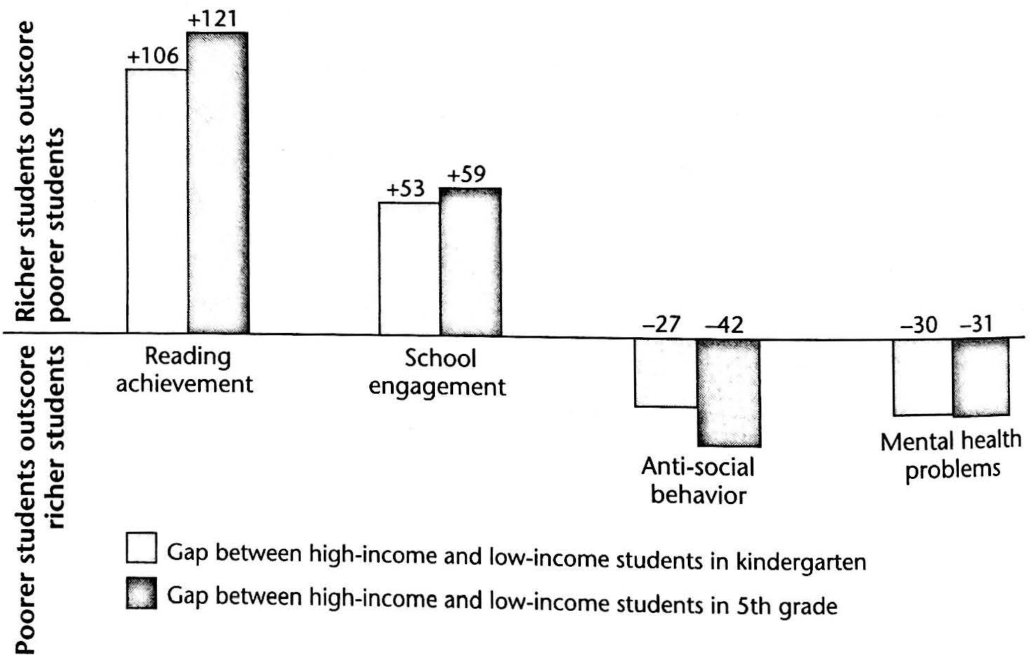
A SNAPSHOT OF Alexander Williams and Anthony Mears at age twenty finds them on strikingly different educational and, in all likelihood, career trajectories. Alexander appears well on his way to an Ivy League degree and medical school. Anthony has a job, but the recent violent deaths of two friends have him just hoping that he will still be alive in five years.

It is easy to imagine how the childhood circumstances of these two young men may have shaped their fates. Alexander lived in the suburbs while Anthony lived in the city center. Most of Alexander's suburban neighbors lived in families with incomes above the $125,000 that now separates the richest 20 percent of children from the rest. Anthony Mears's school served pupils from families whose incomes were near or below the $27,000 threshold separating the bottom 20 percent (see figure 2.4).

With an income of more than $300,000, Alexander's family was able to spend far more money on Alexander's education, lessons, and other enrichment activities than Anthony's parents could devote to their son's needs. Both of Alexander's parents had professional degrees, so they knew all about what Alexander needed to do to prepare himself for college. Anthony's mother completed some classes after graduating from high school, but his father, a high school dropout, struggled even to read. And in contrast to Anthony, Alexander lived with both of his parents, which not only added to family income but also increased the amount of time available for a parent to spend with Alexander.

Which of these factors are most powerful in determining a child's success in school? While Annette Lareau and her team did not monitor school progress or behavioral development for the children in her study, including Anthony and Alexander, many national studies have investigated gaps in school performance among children from similarly disparate backgrounds. As shown in chapter 2, math and reading gaps between high- and low-income children have grown substantially over the past three decades. Data from a recent national study of children who entered kindergarten in the fall of 1998 allow for a more detailed look at income-based gaps as children progress through school (figure 3.1).[1] As before, a 100-point difference in figure 3.1 corresponds to one standard deviation. Each bar shows the relative size of the gap between high- and low-income children.

Figure 3.1 Skill and behavior gaps between high- and low-income kindergarteners and fifth graders



Source: Authors' calculations based on data from the Early Childhood Longitudinal Study—Kindergarten cohort. Bars show differences on an SAT-type scale between children in the top and bottom 20% of the income distribution in kindergarten and 5th grade.

Note: A positive gap, shown above the bar, indicates that richer students scored higher than poorer students on this measure (as in the case of reading achievement and school engagement). A negative gap, shown below the bar, indicates that poorer students scored higher than richer students on this measure (as in the case of antisocial behavior and mental health problems).

The study first assessed the children shortly after they began kindergarten, providing a picture of their skills at the starting line of their formal schooling. It shows that children from families in the top 20 percent of the income distribution already outscore children from the bottom 20 percent by 106 points in early literacy. This difference is nearly twice the size of the gap between the average reading skills of white and both black and Hispanic children at that age, and nearly equal to the amount that the typical child learns during kindergarten. Moreover, the reading gap was even larger when the same children were tested in fifth grade. Gaps in mathematics achievement are also substantial.[2]

Children are more successful in school when they are able to pay attention, when they get along with peers and teachers, and when they are not preoccupied or depressed because of troubles at home. Using the same SAT-type metric as for reading scores, figure 3.1 shows that, according to teachers, children from more affluent families are more engaged than their low-income peers. Also, children from low-income families are more likely to engage in antisocial behavior and to have mental health problems. These differences are smaller than the differences in reading skills. None of these advantages for high-income children shrinks over the course of elementary school, nor do they decline as children move to high school. Indeed, another national data set focusing on eighth graders in 1988 shows that 95 percent of students from families in the top quarter of the income distribution graduated from high school, as compared with only 64 percent of those from the bottom quarter.[3] As we saw in chapter 2, the income-based gap in college graduation rates is even larger and has grown sharply over the last three decades.

Why might growing gaps in family income cause an increasing gap between the school success of low-income and higher-income children? According to economic theory, families with higher incomes are better able to purchase or produce important "inputs" into their young children's development—for example, nutritious meals, enriched home learning environments and child-care settings outside the home, and safe and stimulating neighborhood environments.[4] Alternatively, psychologists and sociologists focus on how economic disadvantage impairs the quality of family relationships.[5] We consider each of these explanations in turn.

ENRICHMENT EXPENDITURES

Increasing income inequality contributes to the growth in achievement gaps, in part because income enables parents to promote learning opportunities and avoid some of the myriad risks to the healthy development of their children.[6] Garrett Tallinger is the pseudonym given by Lareau to a white fourth grader living with his well-to-do parents and two brothers in a four-bedroom "classic home in the suburbs." Like Alexander at that age, Garrett is tall and thin, and while his personality is more introverted than Alexander's, his competitiveness is on display during his frequent sports activities. Tracking the details of Garrett's life for several weeks, Lareau's fieldworkers observed him as he played baseball and soccer, practiced with his swim team, and took piano and saxophone lessons. All but the saxophone were extracurricular activities. They consumed an inordinate amount of the family's weekday and weekend time, and also cost a lot of money: "Soccer costs $15 per month, but there are additional, larger expenses periodically. The . . . soccer team's new warm-up suits, socks and shirts cost the Tallingers $100. Piano runs $23 per weekly lesson per child. Tennis clinic is $50; winter basketball $30. It costs the family money to drive to out-of-state tournaments and stay overnight. Fees for Garrett's summer camps have varied; some have cost $200 per week . . . [Mrs. Tallinger] reported expenditures for Garrett alone as exceeding $4,000 per year, a figure that other middle-class families also report."[7]

These kinds of expenses were not unusual for the upper-middle-class families in Lareau's study. All could easily afford comfortable and reliable cars to transport their children from activity to activity. All lived in spacious houses in quiet, relatively crime-free neighborhoods.

Circumstances were very different for the working-class and welfare-recipient families. We have already seen the financial constraints that Anthony Mears's family labored under. His family did not have a reliable car and his mother worried about crime in the neighborhood.

Harold McAlister is another of the children described in Lareau's book. His family's income is even lower than Anthony's. When observed in fourth grade, Harold, who is African American, has a stocky build and loves to

play basketball and football with his friends whenever he can. He is living with his family in a two-story, four-bedroom brick public housing unit in an all-black urban neighborhood. The apartment is home to Harold's mother, her common-law husband, two sisters, an older brother and, from time to time, some cousins. Harold's father, who works as a car mechanic and lives nearby, never married his mother, but his regular visits to the family keep him connected with Harold.

Harold's mother is as passionate as Garrett's parents about providing what it takes for her children to be successful and happy, but she sees her role as providing food, "clothing and shelter, teaching the difference between right and wrong, and providing comfort."[8] In contrast to Garrett, Harold—like Anthony—is free to play with the many children in the neighborhood, and is not expected to ask permission.

Permission *is* needed if Harold or his sister wants something to eat, because food is always in short supply: "One Friday night, for instance, the two pizzas in the oven must be divided among [six family members]. When Harold asks for a second piece of pizza, he is redirected to drink soda. Another night, each child has one meatball, canned yams, and canned spinach for dinner. There is not enough for second helpings." Even more revealing is Harold's younger sister's response when asked what she would do if she had a million dollars: "Oh boy! I'd buy my brother, my sister, my uncle, my aunt, my nieces, and my nephews, and my grandpop, and my grandmom, and my mom, and my dad, and my friends, not my friends, but mostly my best friend—I'd buy them all clothes . . . and sneakers . . . and I'd buy my mom some food, and I'd get my brothers and my sisters gifts for their birthdays."[9]

This level of deprivation can harm children in many ways.[10] Poor nutrition and inadequate health care have long-term effects on children's intellectual development. Exposure to lead paint affects children's nervous systems, resulting in hyperactivity and irritability, with long-term consequences for both intellectual and emotional development. Exposure to violence results in an inability to stay focused on the task at hand. In other words, poverty creates deficits in children that are long-lasting and very difficult to overcome. Moreover, as we explain in the next chapter, children

with cognitive and behavior problems in school can consume a disproportionate share of classroom time and school resources and in so doing reduce their classmates' learning.

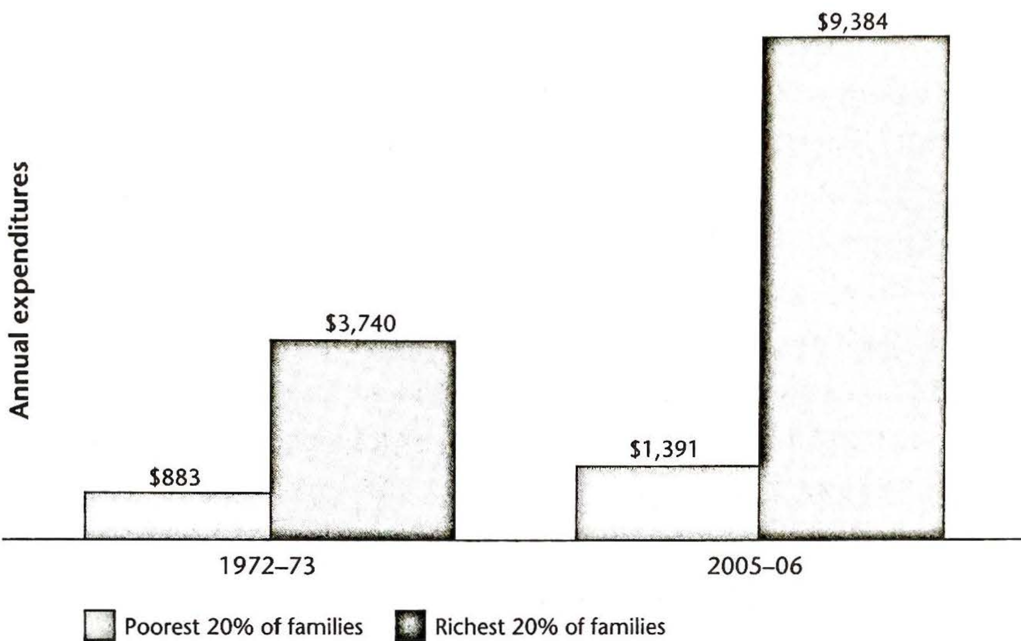
More income enables families to purchase better housing in better neighborhoods and thereby reduce their children's exposure to neighborhood violence and toxins such as lead and airborne pollutants, while increasing access to parks, playgrounds, better schools, and health care. National consumer expenditure data provide a systematic look at spending differences between high- and low-income families.[11] High-income families report spending twice as much on food and four times as much on housing and clothing as low-income families. Schooling outcomes are likely to be affected most by "child enrichment" expenditures—extracurricular activities like the sports Garrett played, high-quality child care for preschoolers, home-learning materials, and Alexander's private schooling. Anthony's family scraped together enough money to pay his school tuition in his senior year, but Harold's family was having trouble putting enough food on the table.

Forty years ago, low-income families spent about $880 (in 2012 dollars) on child enrichment expenditures, while higher-income families spent more than $3,700, already a substantial difference (figure 3.2).[12] By 2005–2006, low-income families had increased their expenditures to about $1,400, but high-income families had increased theirs much more, to more than $9,300 per child. The differences in spending between the two groups had almost tripled in the intervening years. Activities such as music lessons, travel, and summer camps accounted for the largest difference.[13]

STRESS AND MENTAL HEALTH

Another factor that affects school achievement is the quality of family relationships. When families are free from persistent strain, relationships are easier and less fraught with tension.[14] When parent-child relationships are warm, children respond well. When children respond well, harsh parenting practices are less common. Research has shown that parenting tends to differ depending on a family's position on the income spectrum.[15]

Figure 3.2 Family enrichment expenditures on children by income level



Source: Authors' calculations based on data from the Consumer Expenditure Surveys. Amounts are in 2012$.

Depression and other forms of psychological distress can profoundly affect parents' interactions with their children.[16] It is difficult to determine the extent to which poverty causes poor mental health and harsh parenting, since so many factors are associated with low family incomes. Absent fathers, past or present substance abuse, a parent's lack of education, and early childbearing are all factors that can influence parental mental health and childrearing. However, two recent studies have been able to disentangle some of the causes and effects to show the role of income in mental health, work-family balance, and children's school success. One study found that mothers' reports of their mental health were more positive after the Earned Income Tax Credit (EITC) program increased its payments to working families.[17] This suggests that the strain of low income takes a toll on maternal mental health. Analyzing data from blood samples, the researchers also found lower levels of biomarkers for maternal stress after the EITC expansions.

A second promising piece of evidence has emerged from a study of the New Hope work-support program, which operated in two poor neighborhoods in Milwaukee in the late 1990s. The objective of this intervention was to help low-income families balance the stressful demands of work and family. Participating adults were offered a menu of benefits—a cash earnings supplement, child care and health care subsidies, temporary community service jobs—provided that the families maintained at least a thirty-hour work week. Results from a random-assignment evaluation showed that children, especially boys, of families participating in New Hope demonstrated higher school achievement and better behavior than their control group counterparts. (This program is described in greater detail in chapter 8.)

ACADEMIC ACHIEVEMENT

Enrichment expenditures and improved mental health, lower stress, and more "room for error" are some of the potential reasons that increased income might be associated with better school progress among lower-income children. What do all of these possible influences add up to? Two experimental studies involving three sites examined the overall impacts on children of income supplements that boosted family income by as much as 50 percent. In two of the three sites, the researchers found that children in families randomly assigned to receive an income supplement did significantly better with respect to early academic achievement and school attendance than children in families that received no supplement.[18]

Similar results showed up in experimental welfare reform studies from the 1990s.[19] Income-boosting programs produced improvements in children's academic achievement in preschool and elementary school, while programs that only increased employment did not. A $3,000 increase in annual family income raised young children's achievement test scores by the equivalent of about 20 SAT points, on average—not a huge amount, but equal to about two-thirds of the growth in the test-score gap between richer and poorer children in the past three decades.[20]

Thus the strongest research evidence appears to indicate that money matters, in a variety of ways, for children's long-term success in school.[21]

The circumstances in which Anthony and Harold grew up, shaped in large part by their families' lower incomes, have left a mark. While some children have always enjoyed greater benefits and advantages than others, the income gap has widened dramatically over the past four decades.

FAMILY STRUCTURE AND PARENTAL EDUCATION

While income inequality has played a role in widening the educational divide, it is far from the only factor influencing life chances and academic success. Neither Anthony nor Harold had a father living with him most of the time, although both retained connections with their fathers. Single-parent family structures have become the norm for low-income children but are still quite rare among children in high-income families.[22] Growing up in a single-parent family appears to have particularly detrimental consequences for male children, in part because they receive less attention than daughters and in part because their behavior is especially sensitive to levels of attention and warmth.[23]

Parental education levels probably matter even more than family structure and income.[24] Alexander's and Garrett's parents had a keen sense of what it would take for their sons to gain admission to a top university; for example, Alexander's mother helped him secure a summer internship in a medical office. None of Anthony's or Harold's parents had any experience with a four-year college. In her conversations with Lareau, Harold's mother revealed that she was not acquainted with anyone who was a teacher, reading specialist, family counselor, psychologist, doctor, or lawyer.

These kinds of differences affect children's daily experiences and ultimately their educational outcomes. Even if the income gap were to narrow, some of these other differences would remain and continue to influence children's educational outcomes. In the 1970s, Betty Hart and Todd Risley discovered an important source of a literacy gap among kindergarteners.[25] The researchers recruited forty-four families with children who had just celebrated their first birthdays. Hart and Risley made an effort to recruit families from all socioeconomic strata—professional, working class, and welfare recipients—all of which were residentially stable and relatively free of dysfunction. For the next two years, team members paid monthly visits

to the families' homes and tape-recorded and then transcribed every word spoken by the child and parents. Next, they looked at the number and complexity of the words, parts of speech, clauses, verb tenses, and declarative sentences, and determined whether a sentence was an affirmative response to something a child had said. Neither Hart nor Risley took a single day of vacation for three years!

The study generated the often-cited finding that over a year's time, professional parents utter an average of eleven million words to their toddlers. The corresponding figures for working-class and welfare families were six and three million, respectively. There was a long list of class-related language differences.[26] And some of these language differences were associated with reading achievement when the children were in fourth grade. National data later confirmed some of the differences identified by Hart and Risley. For example, while 72 percent of middle-class children start school knowing their letters, this is true of only 19 percent of poor children. And three times as many middle-class as poor children know beginning word sounds.[27]

The Hart and Risley study is a sobering reminder that it takes more than money to promote young children's development.[28] Parents from higher-income families appear to offer their children language advantages that would persist even if their annual incomes rose or fell by $10,000 or even $20,000. Research has shown that maternal education and IQ levels, not family income, are most closely associated with parental use of language.[29] So while money matters, other family factors do too.

Lareau's detailed look at the lives of the children in her study revealed other striking differences between high- and low-income families, including the degree to which middle-class parents "managed" their children's lives, while working-class and poor parents left children alone to play and otherwise organize their activities.

> In the middle class, life was hectic. Parents were racing from activity to activity. In families with more than one child, parents often juggled conflicts between children's activities... Because there were so many activities, and because they were accorded so much importance, children's activities determined the schedule for the entire family . . . [In contrast], the limited economic resources available to working-class and poor families make

> getting children fed, clothed, sheltered and transported time-consuming, arduous labor. Parents tend to direct their efforts toward keeping children safe, enforcing discipline, and, when they deem it necessary, regulating their behavior in specific areas. . . Thus, whereas middle-class children are often treated as a project to be developed, working-class and poor children are given boundaries for their behavior and then allowed to grow.[30]

We may not be able to untangle the precise effects of all these family-related factors—language use, parental management strategies, and family stress—on the disparities in children's school readiness and success that have emerged over the past several decades. But the evidence linking income to children's school achievement that we have reviewed suggests that the sharp increase in income differences since the 1970s and the concomitant gap in children's school success by income is hardly coincidental. Moreover, as states have raised academic standards—a topic we address in the next chapter—the differential impact of income on family life may mean more than it did in the past.

America has long depended on its schools to help level the playing field for children who are disadvantaged by early family conditions. Horace Mann, an early advocate of public education in the United States, argued that schools could help to "equalize the conditions of men." Current data show that less advntaged children start school well behind their more fortunate peers. The gaps in academic performance and behavior between high- and low-income children do not decrease between kindergarten and high school, and they are larger now than at any point in the last forty years. Part of the reason is that school quality itself has been affected by rising income inequality. How and why this should be so is the subject of the next chapter.