



I'm not robot



Continue

What happens when there is inequality in education pdf

Last week, Save the Children published an important article on inequality and development entitled Born Equal - How to reduce inequality could give our children a better future (PDF). It follows concerns about the high levels of income inequality raised in some unlikely quarters: the International Monetary Fund (PDF) and the Organisation for Economic Co-operation and Development (OECD) in a publication have registered concern. What are the implications for education and development? What can we say about the importance of schooling and learning and the links to income inequality? This blog argues that while reducing income inequality becomes one of the major future development challenges, education, especially primary education, is an essential part of the solution. Brazil: High inequalities linked to countries such as Brazil that have recently succeeded in reducing income inequality are a good place to start. The table below shows trends in Gini coefficients for income and education inequalities in Brazil (the Gini being a measure where 100 is maximum disciplinary and zero perfect galti). This is a situation of high income inequality, which has begun to decline steadily. There are a number of possible explanations for this: social protection policies, with well-targeted money transfer policies, have played a role; the greater power of labour movements. But it is striking that educational inequalities have been reduced at the very moment when income differences have been reduced. As the World Bank recently concluded, this is no coincidence. In part, the impact of education on income inequality is due to the fact that progressive spending on education has a direct impact on income distribution. But it is also because of the expansion of basic education by the Brazilian government that has resulted in a more equitable distribution of human capital, which is now having an impact on reducing inequalities in the labour market. So far, both for the argument that investment in education, particularly in basic education, plays an important role in achieving more egalitarian societies. But Brazil is a much more developed country than many low-income countries. Some economists argue that when countries develop, it is inevitable that they will first become more unequal. It is only after they are more industrialized that equality increases. The initial increase in inequality is the result of urbanization and the growing gap between rural and urban areas. Incomes become no longer equal than with democratic pressures. Brazil largely follows this trend: it had high initial levels of inequality and until the late 1980s, income inequality continued to rise. Only now are high inequalities improved. South Korea: Equitable growth and development However, this model of inequitable growth in the early stages of country development is not inevitable. A country that has experienced strong growth and low and stable inequality rates throughout the development is South Korea. In the 1960s, 1970s and 1980s, it achieved staggering growth rates—an average of 18.4% per year between 1962 and 1979. But, as the graph below shows, it has also maintained low levels of income inequality compared to Brazil. There are a number of factors that can help explain this. The first is that South Korea in the 1960s had a relatively equal distribution of land and a relatively equal distribution of educational opportunities. The OECD, in assessing the reasons for South Korea's equitable growth, concluded that education policy plays a key role in explaining Korea's (low) income inequality. Quality primary education for all children has had an equalizing effect, putting the majority of the population in a position to enjoy greater prosperity. Just as basic education seems important in the recent decline in inequality in Brazil, it has been vital for Korea in its early development. In the aftermath of the Korean War, the country placed great importance on universal primary education with a focus on literacy and numeracy. The emphasis has been on universal learning of basic skills with an emphasis on getting all schools to a decent level. It was only when employers began to demand different skills, such as shipbuilding in the 1970s and 1980s, that compulsory education was expanded from 6 to 9 years. The table below shows that spending on primary education is a priority for many years after economic growth begins. Inequality and education: at the centre of post-2015 debates As debates on the post-2015 development framework accelerate, the debate on inequality and why it is important for development continues. But even if the argument that inequality is important is won, it will be the question: what can policy makers really do about it? How can more low-income countries successfully grow through equity? There are no easy answers, but at a minimum, the creation of broad-based and equitable education systems with all children learning in primary school must be a central part of the response. Without education systems that ensure that all children learn, shared economic growth is likely to remain elusive. Volume 37, February 2016, Pages 110-125Seude of education revenuesAerionalarationSeerationShowThrly Invested Full text What this study reveals: Extensive research has conclusively demonstrated that the social class of children is one of the most important predictors, if not predictor of their academic success. In addition, it is increasingly clear that performance gaps by social class take root in the early years of children's lives and fail to narrow in the years that follow. That is, the children who start behind stay behind, they are rarely able to make up for lost ground. Using data from two university cohorts, the 1998 and 2010 kindergarten classes, this study examines the relationship between children's socioeconomic status (SES) and their cognitive and cognitive cognitive skills School. We note that there are significant achievement gaps between children in the lowest and highest socioeconomic quintiles (SES) and that these differences persisted from the 1998 cohort to the 2010 cohort. The good news is that the gaps have not widened, even as economic inequalities between these two groups of students have increased. The negative news is that the gaps have not narrowed, despite the fact that low-SSE parents have significantly increased their involvement in their children's early education. Why it matters: These performance gaps reflect vast unmet needs and therefore untapped talents among low-menTe children. The development of strong cognitive and non-cognitive skills is essential to academic success and beyond. Low academic achievement leads to a decline in economic prospects later in life, perpetuating a lack of social mobility between generations. It is also a loss for society when children's talents are allowed to fallow for lack of sufficient support. The undeniable relationship between economic inequality and educational inequality represents a societal failure that betrays the ideal of the American dream. What can be done about this: Greater investments in pre-K programs can reduce gaps between students at the beginning of school. And to ensure that these early gains are maintained, districts can provide comprehensive school, health, nutritional and emotional support for children throughout their school years, including meaningful parental and community engagement. These strategies have been successfully implemented in districts across the country, as described in this report, and can be used to mitigate the impact of economic inequalities on children's educational outcomes and improve their future lives and work prospects. Summary High and growing inequalities are one of the most pressing economic and societal issues in the United States. Since the early 1980s, the total share of income claimed by the lowest 90 percent of Americans has steadily declined, with the majority of income gains going to the top 1 percent. These trends would not be such a major concern if our education system compensated for these inequalities by helping to level the playing field and allowing children to rise above their birth status. But that is hardly the case. On the contrary, the fraction of children who earn more than their parents (absolute mobility) has increased from about 90 per cent for children born in 1940 to 50 per cent for children born in the 1980s. And the close links between economic inequality and achievement gaps cast doubt on equality that promotes social mobility and puts the American dream at hand. Extensive research has conclusively shown that children's social class is one of the most important, if not the most important predictors of their academic success. In addition, it is increasingly clear that performance gaps by social class the first years of children's lives and fail to shrink in the years that follow. Much is known about the determinants and mechanisms that lead to early skills gaps in children from different backgrounds, but our inability to reduce social skills gaps from one generation of students to the next requires further analysis to determine the degree of influence of these factors and how interventions used in recent years to address these factors have or have not worked and What for. In addition, changing economic and demographic landscapes emphasize the need for stronger policy strategies to fill gaps. This three-part study combines a statistical analysis of early skill gaps among a recent cohort of children and changes in their work over time with a qualitative study of multiple strategies at school district level to reduce them. What We Do: Questions, Data and Methodology In this paper, we use data from the National Center for Education Statistics (NCES): the 1998-99 and 2010-2011 Longitudinal Study of Early Childhood Kindergarten Classes to measure skills gaps by social class. To measure differences by social class, we use the socio-economic status (SES) measure (mainly), a set of information on the level of education and status of parents as well as on household income. We compare the average performance of children in the upper fifth of the distribution of socioeconomic status (high-SES) with the average performance of children in the lower fifth (low-SES). Measured skills include reading and mathematics, as well as self-control and approaches to learning as reported by teachers and parents. Examine ses-based gaps in kindergarten entry among the most recently studied cohort (the 2010-11 kindergarten class). We study how gaps manifest themselves in both cognitive and non-cognitive skills, as both types of skills are important components of children's development. Compare these SES differences with those of a previous cohort (1998-1999), focusing on changes in skill gaps between children in the high and low SES quintiles. We also analyze significant gaps in the inclusion of key determinants of student achievement, such as family composition, children's specific characteristics, K-9 participation, and parenting and educational practices at home. Review a set of 12 case studies of communities that have used comprehensive educational strategies and to provide more children (especially low-income children) with a strong early academic foundation, and to maintain and capitalize on early earnings throughout their K-12 school years. Based on examples from these diverse communities, we discuss the implications: strategies that districts can employ and changes in district and state policy to make these strategies easier to adopt and more sustainable. The report concludes with conclusions and recommendations for further research, practice and policy. What we find Our quantitative research produces a wide range of There are very large gaps in SES-based academic performance that persist in the two most recent cohorts of students when they start kindergarten. The estimated differences between the highest and lowest fifth-highest and lowest children in the SES distribution are greater than a standard deviation (sd) in reading and mathematics in 2010 (unadjusted performance differences are 1.2 and 1.3 dd, respectively). Differences in non-cognitive skills such as self-control and approaches to learning are about one-third to one-half as large (unadjusted performance gaps are about 0.4 sd in self-control, and just over 0.5 sd in approaches to learning in 2010). The differences between the two types of skills between 2010 preschoolers are virtually unchanged from the previous college generation of students (the 1998 class). The only unadjusted difference in cognitive skills between children in the fifth high SES and low SES that changed significantly during this period was the gap in reading skills, which increased by about one-tenth of a standard deviation. Differences in learning approaches, as reported by teachers and in self-control, as reported by parents, decreased by about the same amount (0.1 sd). Gaps in mathematics, in approaches to learning as reported by parents and in self-control as reported by teachers have not changed significantly. Given the individual and family characteristics of children, we find that parenting activities, parents' expectations of their children's accomplishment, and participation before K somewhat reduce the gaps between children at high and at good distance, but are not able to eliminate them. This means that, although some of the difference is due to differences in these characteristics and in family investments between children in the high and lower parts of the SES distribution, a substantial portion of the SES-related factors is not taken into account by these controls, but it is important to explain how and why the gaps are growing, and therefore how to reduce them. In addition, the ability of these other factors to reduce wideningness has decreased over time — overall, they accounted for a smaller share of the 2010 spreads than in 1998. This suggests that, while activities such as parental time with children and pre-K programs based on the centres cushion the negative consequences of growing up in a low SES household, they can only do so many things, and that the consequences of poverty are increasingly difficult to compensate for. This gaps in these controls is therefore a matter of grave concern to researchers and policy makers. Between 1998 and 2010, the characteristics of children in the lowest-SES quintile and the highest quintile of SES changed. Among children in the low SES quintile, in 2010, a greater proportion lived in poverty (84.6 percent), 100, compared to 71.3% in 1998), did not live with two parents (54.9 percent vs. 45.6 percent) and lived in homes where the main language was not English (40.3 percent vs. 31.2 percent). Just over half of these children (50.4 (50.4 Hispanics (in 1998, 39.8 percent were Hispanic). The likelihood of these children attending pre-K at the centre has not changed significantly from one generation to the next (approximately 44 percent for both cohorts: 44.3 percent in 2010 versus 43.7 percent in 1998). However, in 2010, their parents reported having slightly more books at home for children, and there was also an increase in both activity indices (literacy/reading activities and other educational and engagement activities). In addition to doing more for their children, low-MENT parents have higher expectations for their children's level of education — a much smaller proportion saw them go no further than high school graduation, while a much larger proportion predicted that their children would obtain a bachelor's degree and even advanced degrees in 2010. Among children in the high SES quintile, the group had a smaller share of white children in 2010 (from 78.8% in 1998 to 71.3%) and a higher proportion of Asian children (from 4.7% in 1998 to 8.7%). They were slightly more likely to live with two parents (the proportion of not living with two parents increased from 11.1% in 1998 to 9.6%) and to have attended the pre-K centre (the share in the centre-based pre-K increased from 65.8% in 1998 to 69.9% in 2010). The proportion of high-level households reporting having more than 200 children's books increased slightly in 2010, as did parents' expectations of their children's level of education. Although research uses various indicators to measure the social class of individuals, from composite measures such as the socioeconomic status index that we use to unique indicators such as mother's education or income, some sensitivity of the results to the indicator used is found. In our analyses, we find that all are equally reliable social class agents for estimating early performance gaps, although absolute differences and trends in these are slightly different depending on the indicator used. Our qualitative review of community interventions also provides valuable information: A growing number of school districts across the country have adopted comprehensive enrichment and support systems for many or even all of their students, based on the fact that raising a healthy child requires taking advantage of the community as a whole. These districts have taken different approaches to adopting these comprehensive strategies, based on the particular mix of needs and assets of each community, its ideological leanings, available sources of funding and other factors. But they all start very early in children's lives and line up enriching school strategies with a targeted range of supports for children and their families. In addition, school districts that adopt what we call whole-children's education approaches perform better for students, ranging from improved kindergarten preparation to increased test scores and graduation rates, to narrower achievement gaps. This allows them to provide advice to other districts policy makers on how to implement such approaches, what to expect in terms of benefits, and what policies at the local and state level can advance these approaches. Conclusions While the persistence of large skills gaps in kindergarten entry is troubling, the fact that, overall, they have not increased in a generation, despite the growing income inequality exacerbated by the worst economic crisis in many decades, is a good thing. But we must remain very concerned about these shortcomings. We would have liked evidence that the increased dedication and investment of parents in their children's early development, as well as increased investment in pre-K programs and other early childhood education and economic support programs, have filled these gaps. However, the data suggest that these efforts contained them simply and that these positive trends were insufficient to reduce skills gaps at kindergarten entry. This inability to reduce gaps reflects the lack of an appropriate policy response at all levels of government, the neglect of decades of research in multiple disciplines on child development, and the waste that results from critical opportunities to feed an entire generation of children. The strategic recommendations of this report reinforce the idea that we need much greater investment in pre-K programs and ongoing overall support for children throughout their school years, including meaningful parental and community engagement, if we are to significantly improve opportunities for disadvantaged children, given their broad unmet needs and untapped talents. Introduction: Facts about income inequality and its growth over time One of today's most pressing economic problems is the worrying level of income inequality. Since 1979, the total share of income claimed by the lowest 90% of Americans has steadily declined (Bivens 2016). In 1979, these 90 per cent received about 67 per cent of market-based cash income (i.e., pre-tax income). By 2015, their share had fallen to about 52% of pre-tax income. The majority of income gains during this period went to the highest 1% (EPI 2013; Mishel and Schieder 2016; Saez 2016). The surveys reflect widespread concerns about income and wage inequality and associated trends and the desire for policies to address these inequalities (New York Times 2015). Increasing inequality might not be a concern if our education, economic and social protection systems acted as compensatory mechanisms, individuals, especially children, to rise above their birth status and improve their mobility. But that is hardly the case. On the contrary, the fraction of children who earn more than their parents (a measure of what social scientists call absolute mobility) has increased from about 90 per cent for children born in 1940 to 50 per cent for children born in the 1980s (Chetty et al., 2016). Children from certain ethnic and racial minorities who are proportionately likely to live in are also more likely to do so over long periods of time (Sharkey 2013). And the close links between educational inequalities and economic inequality cast doubt on claims that America offers equal opportunities that promote social mobility (Mishel 2015). The influence of income inequality affects multiple aspects of the functioning of society, from health outcomes and even life expectancy to democratic ideals (Putnam 2015; Schanzenbach et al. 2016; Stringhini et al. 2017). In the area of education, the socio-economic status of children (SES), of which income is a key element, is considered one of the most important predictors, if not the most important predictors — of academic success. A number of studies show the strong relationship between social class (of which socioeconomic status is a common measure) and test scores, educational attainment, attendance and completion of college education (see Duncan, Morris and Rodrigues 2011; Garcia 2015; Garcia and Weiss 2015; Lee and Burkam, 2002; Mishel et al. 2012; Putnam 2015; among other things). As a result of these trends and associations, performance gaps by social class have increased significantly since the 1960s, particularly between children at the highest end of income distribution and all others (Reardon 2011). Some researchers have identified a sharp increase in parental investment in education among high-level parents as one of the drivers of the discrepancy in school outcomes (Duncan and Murnane 2011), among other contributing factors, such as the time parents spend with their children and the time parents spend on education improvement activities (Morsy and Rothstein 2015; Van Voorhis et al. 2013). Spending on activities to improve the education of parents in the fifth highest income nearly tripled between the 1970s and 2000 (from \$3,500 in 1972 to \$8,900 in 2 6), while these spending by parents in the lower fifth income remained low and changed much less (from \$800 in 1972 to \$1,300 in 2006) (Duncan and Murnane 2011).1 More time can signify more frequent interactions during play time, more time spent reading to children, and other parenting practices that contribute to children's learning and development (Barbain et al., 2010). In general, more leisure and education time with children can promote their development and school readiness (Brooks-Gunn and Markman, 2005; Hart and Risley, 1995; Phillips 2011; Rothstein 2004; Van Voorhis et al. 2013; Waldfogel 2006). Given the evidence that parental engagement and spending translates directly and continuously into in the success and preparation of children, the presence of various performance gaps is not surprising. Education researchers and policy makers have long been attentive to equity issues — by race/ethnicity, SES, gender and other characteristics. At least since the publication in 1966 of the Coleman Report by sociologist James S. Coleman and co-authors, researchers and policy makers have understood the critical impacts of race, race, and segregation on education (Coleman et al., 1966). And inequalities in education remain a major problem today. Strong research shows that inequalities in opportunities and outcomes within both race and social class begin early and often persist throughout the grades from kindergarten to Grade 12 and beyond, and are much greater in the United States than in comparable countries (Bradbury et al., 2015; Putnam 2015). Some of the research carefully describes the specific contexts and challenges faced by minority and lower-class students and how these challenges create gaps in early education. Other studies illustrate the implications of these gaps for children's later learning and development (Duncan et al., 2007; Duncan and Magnuson 2011).2 And although this research set is smaller, a few studies have examined trends in inequality between cohorts (Carnoy and Garcia 2017; Magnuson and Duncan 2016; Reardon 2011; Reardon and Portilla 2016), with mixed or inconclusive results regarding changes in gaps.3 In addition, these latest studies, however, do not address the causes that could lead to changes in deviations over time. As such, there is a need for both a better understanding of these causes and strategies to counter them. In this article, we describe recent skills gaps and trends observed by social class, as measured by socioeconomic status; Analyze some of the key factors that cause the gaps; and explore a diverse set of school district-level initiatives that help narrow gaps. The paper is structured in three sections. First, we look at the gaps between social classes at kindergarten entry among the most recently studied kindergarten cohort (the 2010-11 kindergarten class). We study how gaps manifest themselves in both cognitive and non-cognitive skills, as both types of skills are important components of children's development. Next, we compare these gaps with those of a previous kindergarten cohort. We examine changes from 1998 to 2010 in skills gaps between children in upper and lower social class quintiles (mainly using SES as an indicator of social class). We also analyze gaps that are sensitive to the inclusion of several key determinants of student achievement, such as children's unique characteristics, family composition, and parenting and educational practices at home. Next, we review a set of studies cases on school districts that have used comprehensive educational strategies to provide more children (especially low-income children) with a solid educational and life base, and to support and capitalize on early gains throughout kindergarten through Grade 12. Finally, we examine the implications of our findings and, based on examples of case studies from various communities, discuss strategies that districts can employ, as well as changes in district and state policy that will facilitate the adoption and most sustainable adoption of these strategies. For the first two analyses, we use two representative studies that are representative National Center for Education Statistics (NCES): Longitudinal study of early childhood kindergarten classes from 1998 to 1999 and 2010-2011. This data provides information on children's skills and children themselves, such as race/ethnicity, socio-economic status, language spoken at home, etc. The data also provide information on children's experiences in their early years, such as how their parents actively engaged them in enriching activities, whether they attended pre-kindergarten care, and how many books the child has (see Appendix A). This information allows us to test the associations between children's characteristics and their academic performance at school entrance. For the second analysis, we rely on 12 case studies of community and school districts using comprehensive educational strategies (Weiss 2016a-h). We examine the qualitative information provided on the investments these districts have made in early childhood education, both in support for schools and in all child support services, and on the basis of evidence that these investments improve both educational outcomes and broader earnings for children. Based on this evidence, the report concludes with conclusions and recommendations for further research, practice and policy. Appendix A and B provide detailed discussions on the data and methodology used in this paper. How large are the recent achievement gaps in kindergarten entry? This section documents the inequalities between the most recent cohort followed by students upon entry to kindergarten in 2010. It gives us the most up-to-the-day view of the various aspects of the gaps at the school's departure gate, all of which are of crucial importance in understanding the implications of these gaps. The results below are based on the 2010-11 longitudinal kindergarten early childhood study, and we use data from the fall measurement of the kindergarten year. (This section builds in part on our previous work; see Garcia 2015 and Garcia and Weiss 2015. See Appendices A and B for details on the variables and methodology used.) Our decision to examine the performance of cognitive and non-cognitive skills reflects the growing acceptance that child development is a complex process in which both types of skills rely and interact with each other, and on some of the role that both types of skills play in the education process and adult outcomes (see Garcia 2015; Garcia and Weiss 2016; Levin 2012a, 2012b). Traits and skills such as critical thinking, creativity, persistence and self-control are vital to children's full development, and are nourished by life and school experiences. These skills, sometimes called non-cognitive or social and emotional skills, tend to develop — or lag behind — in tandem with cognitive skills. Non-cognitive or social and emotional skills are therefore linked to academic performance, as well as adult life outcomes, such as productivity and good health and civic participation. For these analyses, we use a measure of socio-economic status that has three components: the level of education of parents or guardians, the professional prestige of the parents (determined by a score) and the household income (see more details on the construction in Tourangeau et al., 7-56 to 7-60). We divide the children of the 2010-2011 kindergarten class into five groups based on the SES quintile. To measure achievement differences by socioeconomic status, we compare the average performance of children in the upper fifth of the SES distribution with the average performance of children in the lower fifth. This provides an estimate of the relative benefit of a child in the upper fifth of the SES distribution (called in this report high-SES) compared to a child in the lower fifth (aibl-SES). Children are also not prepared for school when they enter kindergarten, and our analyses show that students' social class strongly determines their relative position in the distribution of performance. Most socio-economically disadvantaged children lag far behind in reading and math skills, and these skill levels increase in line with socioeconomic status (sometimes called socioeconomic gradients). Children in the highest socio-economic group scored significantly higher in reading and mathematics than children in the lowest socio-economic group. As shown in Table 1, the relatively unadjusted gaps in reading and mathematics, i.e. the advantages of high-level children over low-RATE children in 2010 are 1.17 and 1.25 sd, respectively (Table 1 also shows that, after controlling the aggregated data, the discrepancies are 0.94 and 0.91 sd.4 The benefits of children's reading and math skills in the middle of the distribution are 0.94 and 0.91 sd.4 SES group are about half as important as the benefits of children with high ESS. The lowest SES group 5 Children in the lowest socio-economic quintile also lag significantly behind non-cognitive skills, based on parent and teacher assessments, although these gaps are smaller than those in reading and mathematics. Socioeconomic gaps in self-control and approaches to learning are about one-third to one-half greater than gaps in reading and math6. Children in the high SES quintile scored 0.38 sd and 0.51 dd higher in self-control and approaches to learning on a case-by-case basis by teachers (0.36 sd and 0.56 sd after grouping; see Table 1) than LOW SES (see Figure A). Using parental assessments of the same skills, the differences are 0.39 sd and 0.56 sd, respectively (0.33 sd and 0.46 sd after grouping; see Table 1). Our analyses also document large socio-economic disparities in inputs, child and family characteristics, and other factors that may affect school readiness (Table 2). Here, too, we find a correlation between socio-economic status and other factors that hinder the development of education. Students with low RATE are more likely than their to be immigrants and less likely to speak English at home, to live with two parents, to have participated in pre-K care activities in the centre in the previous year, and to have participated in early literacy practices at home. Of the children in the low SES group, half (50.4 percent) are Hispanic, 23.1 percent are white, 19.6 percent are black and 2.5 percent are Asian7. Educational outcomes are the product of a combination of multiple factors, which can reinforce or mitigate relative benefits or disadvantages in a dynamic way. We look at these issues in the rest of the document. How do the performance gaps in the 2010-11 kindergarten class compare to the shortcomings of the previous generation? The analyses presented in this section compare input inequalities and achievement gaps between high and low SES students who began kindergarten in 2010 with the gaps between high-SES and low SES students in the previous school generation, the 1998 cohort. We also analyze the factors that have had a major impact on changes in preschool performance, and briefly discuss the research and policy implications of our findings. How have the characteristics of children in the lowest and highest SES groups changed in a generation? We first analyze the characteristics of children by ses quintiles in both cohorts. This allows us to identify differences in the characteristics of low SES kindergartners in 2010 compared to 1998. These changes may help explain why the performance gaps we are studying are increasing or decreasing (for example, if children in the low SES quintile in 2010 were more likely than in 1998 to have access to public programs such as pre-K programs, they might be better prepared for kindergarten and, as a result, the relative benefit of high-level children may decrease).8 Table 2 shows the characteristics of students and 1998-99 and 2010-2011 kindergarten classes by the SES quintile. The table also includes pre-K care arrangements and two cues of developmental activities that parents undertake with their children — literacy and reading and other activities)9 The table also summarizes parents' expectations of their children's educational attainment. To some extent, expectations are based on hope, but they can also respond to the behavioral patterns that children show that allude to their future success. Expectations can also influence outcomes by representing parents' motivation for their children's education. The ECLS-K survey does not ask parents how their expectations (and changes in expectations) affect their delivery of educational or supportive activities, but their answers to the question of expectations can be used as a reasonable substitute for to which parents are aware of their children's education and are willing to support it.10 The most important changes in the characteristics of children by the SES quintile are for children at the bottom of the distribution. In 2010, a higher proportion of children in this group were Hispanic (50.4 percent, an increase of 10.6 percentage points from 39.8 percent, 1998), live in households where the main language is not English (40.3 percent, an increase of 9.1 percentage points from 31.2 percent in 1998) and are immigrants (49.8 percent, an increase of 19.5 percentage points from 30.3 percent in 1998). In 2010, a higher proportion of children did not live with two parents (54.9 percent of children) 100, an increase of 9.3 percentage points from 45.6 percent in 1998), and live in poverty (84.6 percent, an increase of 13.3 percentage points from 71.3% in 1998). These significantly greater disadvantages for children at the lower end of the SES scale could all reflect both the much weaker national economic environment in 2010 compared to 1998 and the growing inequality described above. The likelihood of these children attending pre-K centre did not change significantly from one generation to the next (approximately 44 percent for both cohorts), but they were more likely to be cared for by parents or parents (from 46.4 percent in 1998 to 50.9 percent in 2010). Parents of these children also reported having slightly higher numbers of books at home for children, and there has been an

increase in their educational activity and engagement indices (two composite measures, with the Literacy and Reading Index measuring how often parents read books to their children, tell stories , sing songs and talk about the nature and frequency with which the child reads picture books and reads outside of school, and the other index measuring the frequency with which parents and children play games or puzzles, play sports or exercise together, and build something or play with construction toys; and how often parents help children craft and craft and involve children in household chores. These parents' expectations of their children's educational attainment have also advanced dramatically: the proportion of those who expected their children to graduate from high school has decreased by more than half (from at least 24.1% in 1998 to 11.4% in 2010) and the proportion of parents who expected their children to be at least a bachelor's degree increased , for those who are waiting children to obtain an advanced degree (a master's degree, Ph.D., or M.D.). Among children in the high SES quintile, the group had a smaller share of white children in 2010 (from 78.8% in 1998 to 71.3%) and a higher proportion of Asian children (from 4.7% in 1998 to 7.7%). Children in the upper-level group became slightly more likely to live with both parents (the proportion of children living with a parent increased from 11.1 percent in 1998 to 9.6 percent). 100). (65.8 per cent in 1998 and 69.9 per cent in 2010). We see only a slight increase in the number of books reported at home.11 The proportion of households reporting over 200 pounds — the maximum — increased slightly in 2010 in all SES quintiles except the middle quintile). As was the case for low-MALE parents, those who ranked in the highest quintile expressed their expectations for their children's level of education in 1998 to 2010. Compared to the 1998 cohort, a higher proportion of children in the 2010 cohort were expected by their parents to obtain a graduate degree (master's degree or higher), while a smaller proportion expected their children to only obtain a bachelor's degree. How have the performance gaps between children in the lowest and highest SES groups changed in a generation? The researchers found that the changes over time in socioeconomic status entry factors (child and family characteristics, early education practices and parental expectations) explored above had a major impact on the results (reading and math test results, and measures of unprofitable skills) reviewed in this section12 . early education practices and parental expectations) would partly reflect the differences in composition between the 2010-11 class and the 1998-99 class. For example, we anticipate that if parents of the most recent low-SES generation read to their children more frequently, helped them to do more arts and crafts, or had higher expectations for them, these factors would be correlated with narrowing skill gaps. In addition, we would expect that adjusted skill gaps (difference measures that are clear of the influence of child and family characteristics, early education practices and parental expectations, and thus reflect the deficiencies of the SES) would be different for both cohorts if the correlations between inputs and outcomes had changed over time or if the share of outcomes of children whose adjustments had changed over time. To understand the potential influence of these factors on gaps, we examine unadjusted and adjusted deficiencies in the tables in this section. We also examine the shortcomings of certain components of the SES index, such as household income or the mother's level of education, and other variables that are sometimes used as agents of the child's socio-economic origin, such as the number of books at home. If the deficiencies in SES's components and proxies differ somewhat, it tells us that choosing researchers on how to divide children into groups and compare them are important, both for their findings and for their policy recommendations. Table 3 shows the unadjusted and adjusted differences between the standardized reading and math scores of kindergarten children in the upper SES quintile compared to the lower SES quintile in 1998 and the change in by 2010 Table 4 provides the same analysis of gaps in measured non-cognitive skills. The tables show two somewhat confusing patterns. On the one hand, the differences in cognitive and non-cognitive skills between high and low SES children are significant and statistically significant in both cohorts. But while significant social class-based performance gaps persist from one generation from kindergarten to the next, there is not the same consistency in how the gaps between high- and low-SES RATES change. For some cognitive and non-cognitive skills, performance gaps increase, while for others the gaps decrease, or remain the same from one generation to the next (which may complicate the process of understanding why performance gaps have changed over time). Based on our unadjusted model (first data column), the only substantial increase in the gap between high and low ESS children from 1998 to 2010 was in reading skills, which increased by one-tenth of a standard deviation. There have been no significant changes in gaps in math skills, which, as the literature suggests, are less sensitive than reading skills to parents' activities at home (see Rothstein 2004, 2010). Similarly, gaps in parent-reported approaches to learning and self-control as reported by teachers have not changed significantly, and gaps in learning approaches as reported by teachers have decreased by about the same amount as the reading gap (approximately one-tenth of a standard deviation — 0.12 and 0.08 sd, respectively). Figure A provides a graphic illustration of the unadjusted gaps in cognitive and non-cognitive skills of high- and low-SES children in both cohorts. The additional models estimated for each result and shown in Tables 3 and 4 offer other key results. In Model 1, we used the complete samples of both cohorts, but we did not include controls that take into account the characteristics of children or their parents or the early education practices in which families engage. Model 2 divides the data into schools and classes, or clusters, so that cluster subjects are more similar to each other than to those of other groups. As part of this adjustment, the ables decrease significantly, from 15 to 25 percent across the skill set, and the regression adjustment improves significantly (see increase in adjusted R-square, i.e. this model accounts for more of the total variation in results than the first model). This grouping takes into account the children are not randomly distributed, but tend to concentrate in schools or classrooms with children of the same race, social class, etc. The aggregated estimates compare the skill gaps of students - those of the same schools and class — rather than a comparison between schools. Garcia (2015) and Magnuson and Duncan (2016) also propose these estimates. How do the characteristics, activities and expectations of children and families affect ses-based performance and performance gaps? We're the contribution of certain variables of interest to SES-based performance differentials. We are dealing with this issue in two ways. First, we examine changes in gaps (Tables 3 and 4, Models 3 and 4) and the overall reduction of gaps resulting from control of children and their family characteristics, early literacy practices and parental expectations for academic success (Table 5). Second, we assess the influence of some early educational practices on performance and how this influence has changed over time by examining the associations between these inputs and performance (Table 6). Models 3 and 4 of Tables 3 and 4 use samples that result from the removal of observations without complete information for interest controls.14 The addition of controls is important because performance gaps based on socioeconomic status can be explained by differences in variables other than the socioeconomic status of the child. In other words, we aim to determine what part of the difference is attributable to the children's SES, net of other factors that count for performance. Thus, in the third data column (Model 3), we add controls for individual and family characteristics (sex, race/ethnicity, main language spoken at home, disability, age, if children live with two parents) and early educational and play activities (pre-K care based at the centre, cues for literacy/reading activities and other activities, and total number of books as children have). Model 3 also includes interactions between early education variables over time.15 In the fourth data column (Model 4), we control the same factors as in Model 3, but let's add controls on parental expectations of children's educational attainment (whether they expect their children's highest level of education to be high school diploma or less, some college or vocational education, a bachelor's degree or advanced degree) and their interaction with time.16 We describe these results in the following section. The inclusion of covariations changes estimates of SES-based skill gaps in a variety of ways. First, the discrepancies between the upper and lower quintiles are narrowing, showing that the differences based on the SES are partly due to the variation in controls (which is not visible in the tables)17 Second, the controls do not significantly alter the differences based on the SES over time, in general; that is, the coefficients associated with changes in the differences between high and low SES children remain almost the same, or change very little, depending on the measured skills. The statistical importance of SES-based skill gaps in 1998 is not affected by the inclusion of controls (see the Gap in 1998-1999 lines in the tables), but the statistical importance of changes in the 1998 gap and 2010 (see Change of Gap by 2010-11 in the tables) is somewhat affected by the inclusion of controls (note that the size of coefficients measuring 1998 changes after the inclusion of controls, but that the coefficients measuring changes between 1998 and 2010 do not change significantly). In reading, the change in the gap between 1998 and 2010 decreases and becomes statistically insignificant in the last model (the relative difference increases by 0.08 sd but this change is not statistically significant), meaning that the addition of parental expectations for education partly explains the increase in the gap detected in models 1 to 3. The only skills gap based on the SES that shows a statistically significant increase from 1998 to 2010 once parental expectations are controlled is the gap associated with parents' assessment of learning approaches, which increases by 0.11 sd. Differences between high and low SES children in cognitive and non-cognitive skills after adjustments are shown in Figure B. As noted above, the fact that skill gaps decrease after controls are taken into account confirms that the deficiencies based on the SES are due in part to variation in controls between high- and low-SES children. This trend is reflected in Table 5, which, as noted above, shows the overall reduction in gaps resulting from control of child and family characteristics, early literacy practices and parental expectations for academic success. In terms of cognitive skills, the 1998 differences decreased by 46 percent and 53 percent, respectively, after the inclusion of covariations. About half of the discrepancies are therefore due to other factors that are associated with both SES status and the results themselves. Reducing the gap between 1998 and non-cognitive skills ranges from 28 percent (learning approaches reported by teachers) to 74 percent (learning approaches as reported by parents). (For self-control as reported by teachers, the reduction is 51 per cent compared to 35 per cent when reported by parents.) Although gaps continue after controls are included in all results, gaps in 2010 are less sensitive to covariate inclusion than they were in 1998. This trend is also presented in Table 5.18 The decline in values from 1998 to 2010 indicates that factors such as early literacy activities and other controls are not, as a group, an explanation of the ses-based deficiencies as much as a decade earlier. This change could be due to the index's inability to fully grasp parents' efforts to promote their children's development and/or the index becomes somewhat outdated. In any event, the resistance of gaps to these controls should be of concern to researchers and policy makers. Decreasing influence these controls make it more difficult to understand what leads to SES deficiencies. It also suggests that gaps may be increasingly intractable or, at least, less easily reduced by the adoption of known policy interventions. Finally, we examine the association of performance outcomes (not performance gaps) with some early educational practices, including attending centre-based pre-K activities, literacy and reading activities and other activities, and the total number of at home (Table 6).19 We are primarily interested in two potential models: whether these factors are associated with outcomes (and, if so, the intensity of associations) and whether relationships have changed over time. According to established research, attending the centre-based pre-K is positively associated with children's early reading and math skills. For 1998, the estimated coefficients are 0.11 sd for reading skills and 0.10 sd for math skills, substantial associations that do not change significantly over time. In other words, participation in pre-K in 1998 improved the reading skills of preschoolers by 0.11 sd and improved the math skills of preschoolers by 0.10 sd compared to not attending pre-K. However, while the pre-K-based centre continues to reduce self-control as reported by teachers in 2010, the effect is less negative in 2010 (the improvement of 0.06 from 1998 to 2010 shown in the lower table states that the effect in 2010 was -0.07, 0.13 and 0.06), compared to 0.11 and 0.10. We find no independent effect of centre-based pre-K on reading skills (i.e., no effect in addition to SES), in addition to other individual and family characteristics, or in addition to other SES-based factors), on approaches to learning or self-control as indicated by parents.20 The number of books children have at home also supports their skills at the beginning of kindergarten. Indeed, this factor is positively associated with all the results, but particularly as reported by the parents. The coefficients are very low, from about 0.01 to 0.02 sd (associated with changes in results of each additional 10 pounds that the child has, as expressed in the continuous scale with which the number of pounds in the house is measured, which is divided by 10 for analyses (as mentioned in Appendix A), and these relationships do not change over the period. Both types of parenting activities summarized by the reading and literacy and other activities indices show interesting correlations with performance and trends over time. On the one hand, the reading and literacy activities index (an index of how often parents read books to their child, tell stories, sing songs and talk about nature, and the frequency with which the child reads picture books and reads outside of school) is strongly and positively associated with all outcomes other than children's self-control, as reported by the teacher. Associations with cognitive skills, particularly with are strong and statistically significant - 0.17 sd for reading performance and 0.07 sd for mathematics - and these associations did not change significantly between 1998 and 2010. For non-cognitive skills, relationships are strong for those assessed by parents, although they decrease by about half over time: self-control is 0.14 dd in 1998 and decreases by 0.08 dd by 2010; approaches to learning is 0.32 sd in 1998 and decreases by 0.17 sd by 2010). The relationship is much weaker, although statistically significant, for approaches evaluated by teachers to learning (it is 0.03 dd in 1998 and does not change significantly by 2010). On the other hand, the index that measures other enrichment activities that parents do with their children (a composite of how often parents and children play games, play sports, build things, work on puzzles, do arts and crafts, and do household chores) shows significant correlations with all skills, but they can be either positively correlated or negatively correlated , depending on competence. In terms of cognitive skills, associations are statistically significant and negative, although stronger and somewhat more significant or more intense with reading success (-0.12 sd in 1998) than with math scores (-0.04 sd).21 These associations have not intensified or weakened over time. In terms of non-cognitive skills, the associations are very positive and statistically significant, and very strong for parents' assessment of approaches to learning (0.29 sd in 1998). As Garcia (2015) explains, these correlations between other activities and non-cognitive skills as assessed by parents could be two-way: children's involvement in enrichment activities could improve their non-cognitive skills, but, at the same time, parents who are more likely to participate in their children's early and educational play time are likely to perceive or judge that their involvement has an impact on their children's skills. But the fact that the frequency with which parents engage in most of these activities and the importance of this index for the skills assessed by parents increased significantly from 1998 to 2010 (from 0.22 sd for self-control and 0.27 sd for learning approaches) suggests that parents are increasingly informed and involved in their children's early education over time. It also indicates that parents are increasingly acting on this knowledge and that this participation will continue to grow, albeit potentially with diminishing marginal returns of time and resources invested. The association between other activities and teachers' assessment of children's non-cognitive skills is also positive but lower than that of parental assessments (approximately 0.03 dd for learning approaches and 0.05 sd for self-control), and remained unchanged over the study period. Finally, we find a strong association between parents' expectations of their children's level of education and all the measured skills. In other words, net higher the expectations, the higher the cognitive skills of children and the higher the assessments by parents and teachers of children's non-cognitive skills. The parental expectations part of the table measures children's performance relative to children with the lowest parental expectations (high school diploma or less). Although the expectation that a child will pursue a certain vocational training or complete a college has a statistically positive influence on all skills skills with the exception of reading, the hope that their children will complete a bachelor's degree or more education has a stronger influence, including on reading skills (between 0.11 to 0.16 sd higher in reading and between 0.17 to 0.22 sd higher in mathematics in 1998. High expectations of children's educational attainment also have a statistically positive effect on non-cognitive skills. When an advanced degree (master's degree or higher) is expected, coefficients range from 0.12 dd in self-control by teachers to 0.38 dd in approaches to parent learning in 1998. Moreover, most of these associations, especially cognitive gradients, develop in 2010. Compared to children whose parents have low expectations, children whose parents have the highest expectations for their children (higher education) perform much better in reading and math than in 1998 (relative differences increase by 0.19 and 0.12 dd, respectively). An equally strong association is recognized for the non-cognitive skills assessed by teachers (but not for parents' assessment of their children's skills). Sensitivity Analyses: Do performance gaps vary according to the social category (socioeconomic status) used? Part of the challenge of making conclusive statements about trends in social class education gaps is the existence of multiple valid proxies to measure the social class or socio-economic status of children.22 Although researchers treat these proxies as equivalent, and even interchangeable, the lack of a comparison of results obtained using various indicators limits our ability to draw important conclusions about social class trends and their drivers , and thus hinders the plausibility and effectiveness of policy recommendations based on the conclusions of a specific indicator (deducted from other methodological and instrumental differences that may exist between studies). We therefore conduct analyses using several of the main agents used to measure socio-economic status. The purpose of these analyses is twofold. The first objective is to test the sensitivity of estimated relative deviations, and the trends they entail, to changes in the extent of this key predictor of educational performance. (In other words, if all indicators are reliable SES proxies, the gaps and trends obtained from the various measures should be similar.) The second objective is to increase the comparability of the results of studies on trends in educational inequalities that use various measures of social class. This is an important issue; in addition to helping various results found in the literature, these analyses may reveal why models differ and have important political implications. As such, instead of the composite SES measure we use to estimate SES-based deficiencies in this report, we use three alternative indicators to perform our analyses: the mother's level of education, household income, and the number of pounds the child has in the home. Unlike the composite SES measure, two of these measures to be directly comparable over time. The mother's level of education and the number of books the child has are objective categories. As a limitation, and primarily associated with the information available in the raw data, none of these categories can be transformed into a percentile variable without major transformations. (Adjustments to ensure comparability over time are explained in Appendix A. See Reardon and Portilla 2016 for an analysis with a transformation of the income variable that provides an appropriate percentile comparison, based on the methodology developed by Reardon 2011.) Nevertheless, these would be variables associated with the social class and can be categorized into groups or categories that identify high and low social class status. Thus, with the necessary caution when interpreting and using the results, we offer this comparison of the results as a sensitivity analysis. We create five categories with these indicators, maintaining the comparison structure of high-SES (top quintile) with low-SES (lower quintile) as in Tables 1-5 (note that we use SES interchangeably with social class here). For simplicity's sake, Tables 7 to 9 show only the results of two models: one without covariations (model 1, base estimates) and the other with all covariations (model 4, fully adjusted estimates). We first focus on the results of the relative relative deviations in 1998 and 2010 (C-E figures). The overall trends found in the results suggest that all gaps in social classes are statistically significant and important. However, the exact size of the differences varies depending on the social class indicator used and the results assessed. In addition, changes in differences over time vary depending on the indicator used to capture children's social class. In addition to these general findings, we note some more detailed findings. For 1998, deviations by the mother's level of education (Figure C; Table 7) are the most important for all indicators (with the exception of the teachers' self-control gap, which is slightly less than the differences measured using household income and the number of books the child has), while differences by number of books (Figure E; Table 9) are the smallest in all indicators (with the exception of the gap in parent-assessed learning approaches, which is slightly larger than the gap in household income). Again, according to 1998 data, the coefficients of deviations by the mother's level of education are generally greater — and in three cases much larger — than those obtained using the number of pounds at the as an indicator of social class. For example, the relative difference is 1.29 sd in reading and 1.46 sd in mathematics when the mother's education is the SES proxy, compared to differences of 0.74 sd and 0.97 sd when the number of books in the house is the SES proxy. It is also important to note that discrepancies in the mother's level of education (Figure C; Table 7) and income (Figure D; Table 8) — two of the five components of SES construction — are very similar to those obtained by our SES composite (as shown in Figure A). Overall, the results appear to be consistent internally and generally consistent with previous results on this topic (Reardon and Portilla 2016). In terms of changes in performance differentials over time (unadjusted), the results vary according to the social class indicators used, with mother's education and household income being the indicators associated with the most significant changes in the differences. The changes in performance gaps in cognitive skills between 1998 and 2010 by our composite measurement SES and books are similar: an increase in the reading gap between children in the upper and lower quintiles of about one-tenth of a standard deviation (0.10 sd with the composite measure SES [Figure A] and 0.08 sd if SES is proxied with books) , and no significant change in mathematics (there are some differences in non-cognitive outcomes). However, in terms of the mother's level of education, there are no changes in relative reading and approaches to learning gaps reported by parents over time, as well as a significant reduction in differences in other outcomes. Meanwhile, income-based differences for the two cognitive skills — reading and mathematics — decreased by -0.13 and -0.23 sd, respectively, and for learning approaches as reported by teachers by -0.13 dd. No significant changes occurred for the remaining noncognitive skills. In summary, this sensitivity analysis demonstrates that all indicators are reliable SES proxies for estimating early performance deviations, although absolute deviations may vary slightly depending on the indicator used. However, proxies are not as reliable when we assess trends in deviations by SES or their drivers. As such, apart from the differences in definitions and procedures used to construct each SES proxy, proxies should not be treated as totally equivalent. The decomposition conducted here helps to clarify the different weights that different components of SES may have in driving changes in gaps by social class. For example, the variation in income from one group to another over time is associated with a decrease in performance gaps in cognitive skills between 1998 and 2010, and variation in quintiles or education level categories over time is associated with a decrease in performance gaps between cohorts in most non-cognitive skills. However, the variation of books at home over time and between groups is associated with increased gaps in reading and in approaches assessed by parents to learning. These results also very different political solutions: if maternal education is the main driver, improvement that will improve children's prospects. On the other hand, the findings that income inequality is the greatest culprit would indicate the need for policies that reduce these inequalities. Future research should examine and examine these issues more closely. What can we learn from these analyses? The multiple factors and relationships examined in this section can now be examined from a policy perspective. If the aim is to equity, in order to improve children's overall development and improve our understanding of children's development, there are two key policy recommendations: directly supporting less resourced families so that they have better access to educational and economic resources (see Garcia and Weiss 2017). All measured early educational and play activities, which include pre-K care and literacy/reading and other activities, as well as the number of books a child has, are positively associated with child preparation, and partly explain the gaps in social classes, but are much less accessible to children of lower socio-economic status. Virtually all associations between these factors and outcomes were strong and positive (with a few exceptions), and some even increased over time. A particularly interesting related research recommendation would be to examine whether the intensity of these activities or practices has a threshold effectiveness (after which they no longer affect children's development).23 It would also be useful to understand why parents' expectations of their children's educational attainment have increased and how this has affected children's development. For example, do parents have a better understanding of the relationship between educational attainment and prospects for success in life and the workforce? Are children performing better because their parents expect more, or because parents who expect more also offer more in the form of rewarding activities? Design and implement strategies that compensate at the community level for children's lack of access to key basic resources (economic and educational). These strategies can be seen as indirect supports for families with less resources that reduce inequality and complement the direct supports described above. Examples of communities that have adopted such comprehensive support initiatives are a good place to start to explore how and why they are emerging. The types of support they provide (from preschool programs to home visits with parents to enriching summer programs, classroom health clinics, and more); Challenges to intensify and support them; The benefits they offer to students, particularly disadvantaged students; and their implications for policies at the local, state and even federal levels. The next section of this report presents an analysis based on qualitative data from promising initiatives in a dozen school districts across the country (Weiss 2016a-h). What are pioneering school districts doing to combat inequalities and the resulting gaps? This section of the report is based on a set of case studies published by the Broader, Bolder Approach to Education (BBA), a national campaign that advances evidence-based strategies to mitigate the effects of poverty-related disadvantages on education and learning.24 Case studies present school districts that have used educational strategies to ensure that more children, especially low-income children, have a strong educational and life base, and that the resulting early gains are sustained and implemented through the K-12 years. (These strategies are often referred to as whole child education, reflecting their holistic nature.) We explore the premise that school districts that adopt an education-based approach and a community-wide approach to achieving it are likely to achieve greater gains in academic achievement and reduce their achievement gaps based on race and income. In doing so, we are building on evidence to suggest that consistent and strong supports for children and their families, both at school and outside, can avoid the fade-out observed among graduates of many pre-K programs and even improve the early benefits of these programs. This section is therefore divided into four parts: (1) an introduction to case study districts, followed discussions on (2) how these districts invest in early childhood care and education, (3) how district investments in K-12 strategies support and stimulate early childhood investment, and (4) how educational gains and reduced performance gaps indicate that district investments are paying off. Table 10 provides basic information on the 12 districts/school communities studied; Appendix E at the end of this report provides more information on the key characteristics of these districts.25 Introduction to Case Studies: Why These Districts Have Adopted Whole Children's Strategies Large and growing disparities in the economic well-being of children in America and numerous data linking these disparities to widely divergent educational outcomes have prompted an increasing number of communities and school districts to take action. By taking into account evidence that non-school factors play an even more important role than academic factors in school performance, these districts are looking for ways to address poverty-related barriers to effective education and learning. These districts have benefited from a significant body of research on promising strategies to address key challenges facing students and schools, strategies that have shown that they reduce achievement gaps by reducing large disparities in opportunities (Carter and Welner, 2013). The first and perhaps best documented strategy is the care and education of high-quality young children, especially when they engage parents early and significant. High-quality early childhood education programs not only reduce achievement gaps at entry to kindergarten, but also provide long-term benefits to children, their families and society as a whole (Chaudry et al., 2017; Rolnick and Grunewald 2009). Programs that support students' physical and mental health and improve their nutrition are also known to reduce chronic absences and keep students focused and learn, thereby improving their academic performance (CDC 2016). After school and designed summer enrichment also drive success, both directly and indirectly by improving student engagement and school attendance (Petersen 2013). Whole-child approaches integrate these and other strategies into a comprehensive set of interventions, leveraging community-wide resources to meet the broad range of students' needs. Although the impact of these comprehensive approaches has not been studied as widely as individual components, considerable theoretical and emerging empirical research highlights the strong potential of such strategies to increase outcomes and reduce gaps (Child Trends 2014; Oakes, Miller and Daniel 2017; Weiss 2016). This section of the report aims to add to this knowledge base by sharing qualitative information on how these global approaches have emerged and developed, what they look like when successfully implemented, and how outcomes vary from community to community. How are whole children's initiatives launched? Each of the districts studied has distinct circumstances and therefore distinct reasons for coming to this conclusion, as a community, that it should take a holistic approach to education. At the same time, demographic trends that affect virtually all states — and many, if not most, school districts across the country — played a major role in this decision in all cases.26 Indeed, community and school leaders in all of these districts cited student poverty (and, in some districts, demographic changes) as posing challenges that needed to go beyond school walls to address them. The way in which these factors triggered the launch of the initiative varied, but poverty was at the heart of each community's decision. For example, in 2008, community leaders identified East Durham as one of the most troubled areas of Durham, North Carolina, based on a community risk assessment conducted by Duke University's Children's Environmental Health Initiative. The 11,000 residents of the 120-block area had a poverty rate of 40% and a homeownership rate of only 19%, as well as high crime and unemployment rates, putting its 3,000 children and youth at high risk of school failure (Weiss 2016h). Across Vancouver, Washington, the proportion of children eligible for subsidized school meals increased from 39% to more than 50% in less than a decade, so that in 2015, in some downtown schools, more than four in five students were eligible for subsidized school meals in 2015 (Weiss, 2016b). In another distressed community in northern Minneapolis, the median family income was only \$18,000 in 2011, and a quarter of Northside's 5,500 students were homeless or highly mobile (in housing so unstable that they were at risk of homelessness) (Weiss, 2016d). In Pea Ridge, Arkansas, schools had difficulty finding resources that met the needs of children, superintendent Rick Neal said. We knew we didn't identify all that were there. I think how many districts are (Weiss 2016f). And in the early 1990s, the Tangero Park neighborhood in Orlando, Florida, a remote enclave of 3,000 people, almost all of them low-income and African-American, caught the attention of hotelier and philanthropist Harris Rosen, who was looking for a neighborhood to invest in (Alvarez 2015). Each of these districts has taken different approaches to adopting these comprehensive strategies, based on the specific mix of community needs and assets, ideological leanings, available sources of funding and other factors. One of the most politically progressive districts, Montgomery County Public Schools (MCPs) in Maryland, paved the way for an entire child approach in the early 1970s when it adopted a housing policy that uses mixed-income residential developments to create communities with families of different income levels. In the 1990s, the county developed Linkages to Learning, a community schools approach to engage and partner with low-income parents and families and immigrants and link them to a wide range of community resources (MCPs 2016). (Community schools are known to partner with community organizations and private service providers to meet the needs of students and families.) Austin Independent School District (AISD), also in a politically progressive jurisdiction, began its efforts for the whole child by organizing parents and community in schools. Since then, she has invested in social and emotional learning and a community school strategy (CASEL 2017). At the other end of the spectrum are whole child approaches in Joplin, Missouri, and Pea Ridge, Arkansas, districts located in the more politically conservative southern states. These districts operate under the aegis of Bright Futures USA (a national non-profit spin-off that began with Joplin's Bright Futures initiative). Bright Futures districts take a more individualistic view, saying that every member of the community has time, talent or treasure to offer that can help children overcome disadvantages and ensure more equality of opportunity (Weiss 2016a). Two other districts modeled their efforts on the Harlem Children's Zone (HCZ). The Northside Achievement Zone in Minneapolis is funded by a grant from the federal Promise Neighborhoods initiative, enacted by the Obama administration to help more communities dramatically improve the educational success of low-income children by adopting HCZ-shaped strategies. The East Durham Children's Initiative in North Carolina is fully funded by the private sector to date 2016h). In Kalamazoo, Michigan, and Orlando, Florida, promises of Promise scholarships have evolved into broader efforts for all children (Alvarez 2015; Miller-Adams 2015). Districts also take different approaches based on density. New York, home to dozens of full-service community schools, supported by the Children's Aid Society and expanding rapidly to other schools, and Boston, where you will find themselves the initiative — taking advantage of a wide range of artistic and cultural offerings in their respective cities, as well as health and nutrition and other social services (Weiss 2016g, 2016h). Cultural offerings to complement other comprehensive services are also part of the Full Service Community Schools District initiative in Vancouver, Washington. In contrast, Partners for Education, which serves the remote area surrounding Berea College in Kentucky, was the first rural organization to receive a promised Neighbourhood Grant and, as a result, is a pioneer in exploring how the model works outside the urban context (Berea College 2013). What do whole children's initiatives do? The sections below describe the commonalities between these different approaches in terms of investing in children's early years (before school starts), building on these investments throughout the K-12 years (both in and out of school) and the gains that students and schools benefit from as a result of these investments.27 , each of the 12 districts highlighted as a BBA case study made investments in early childhood care and education, many of them substantial. The efforts of these districts begin long before children enter school and go beyond pre-K offers to equip parents in the effort to ensure their children's preparation for school. One-on-one engagement with new parents investing in Babies by Engaging Parents can include providing new parents with key information about child development and how to keep children healthy and safe. In Joplin, Missouri, Bright Futures Joplin is partnering with two of the region's hospitals to offer new baby kits with information on child development and early literacy and is trying to raise funds to support the long-term project and expand it to reach all new parents (Weiss 2016a). In Vancouver, Washington, 6,000 literacy packages are delivered each year to families with children up to the age of five, offering child development activities and lessons that families can take at home (Weiss 2016b). Districts rely on partnerships to connect parents with a range of school and community resources that support children from birth to kindergarten. In eastern Kentucky, the Whole Children's Program Partners for Education works with Community Early Childhood Councils to host events such as Early Childhood Week, the Dolly Parton Imagination Library and Kindergarten Transition (Weiss 2016c). In Montgomery County, Maryland, the Judy Centers — child care and family education centers — are taking advantage of partnerships with local social service agencies and community non-profit organizations to increase parents' access to mental health, nutrition and other key services (Maryland State Department of Education 2017). Parental education and early engagement help prepare children for school, both academically and overall overall Development. These are the two goals of the Minneapolis Northside Achievement Zone (NAZ), where currently only one in four preschoolers in the area is ready for kindergarten based on standardized tests. To improve these opportunities, the area has a team of NAZ navigators who work with families to establish and track progress towards early childhood goals and to link this area of family support to academic, housing, career and financial, and behavioural health goals (Weiss 2016d). Parenting courses Parents are the first and most important teachers of children. Like the one-on-one strategies described above, parent classes provide information on child development, early literacy, health and constructive disciplinary practices, and provide more accurate advice tailored to the specific needs of parents. Almost all of the districts studied offer classes of new parents. 1-2-3 Grow and Learn is a weekly, 90-minute literacy-rich program for young children and their parents in 12 elementary schools in Vancouver's high-poverty neighbourhoods. It lays the foundations for school preparation through social and educational experiences. In addition, the District's Family and Community Resource Centres provide workshops, groups and courses to parents to help parents support their children's learning, while empowerment and skills improvement programs, such as job preparation, housing assistance and parent leadership advisory groups, strengthen parents' basic skills. Family Academy classes in the North Minneapolis Northside Success Zone include College Bound Babies (for parents of children up to three years of age), which teaches early literacy, numeracy and positive discipline skills, and Foundations, allowing parents to feel confident talking to their children's teachers and defending their children's schools and defending their children. In many cases, districts use a combination of one-on-one and collective support, like Early Head Start.28 The East Durham Children's Initiative, a private program loosely modelled on the Harlem Children's Zone, includes Durham Connects, a home visiting program that supports families in the area with children up to the age of 3 and is followed by weekly or biweekly education for parents at home and support provided by two not-for-profit social service providers, Healthy Families Durham and Jumpstart (Weiss 2016h). In Montgomery County, Maryland, working with class teachers to help them develop family partnership agreements, which are based on each family's strengths, needs and personal goals. A team led by a social worker follows up by telephone and by visits. In two of the district's poorest schools, these supports are supplemented by Child Care and Family Education Centres (Judy Centers), which provide comprehensive early childhood education and support for children from birth to age five and their families (Marietta, 2010). Large investments in pre-kindergarten programs Almost all states in the now invests at least a minimum in pre-K programs for underprivileged children, and a growing proportion of states are making these programs widely available.29 Most of the districts we studied, however, have gone far beyond state programs through one or more funding strategies and mechanisms. Some of these districts benefit from high-quality state pre-K programs that serve a large portion of children, freeing districts to invest in other aspects of early childhood enrichment. The Partners for Education initiative, based in Berea, Kentucky, builds on the state's pre-K program, which serves all three- and four-year-olds who are low-income or have other risk factors. This allows Partners for Education to use Promis Ward grant funds to place early childhood specialists in pre-K classrooms throughout the four-county region (the area is a promised neighbourhood area, which means federal funds are available for a variety of education and health investments). Specialists also offer coaching, professional development and support to Head Start classrooms, as well as home tutoring during the summer. In East Durham, North Carolina, strong state preschool programs are complemented by a low-cost partner-run kindergarten and a summer kindergarten preparation program, and home visits from advocate parents offer a range of supports, such as links to the pre-K state. In Kalamazoo, Michigan, the Pre-Kindergarten Early Education Program (PEEP) offers half-day or full-day pre-K classes in elementary schools for four-year-olds at or below 250 percent federal poverty, according to state law, but it adds transportation and meals for these children. Peep also works with other programs such as Head Start to provide families who are not eligible for peep with other options for low quality or no-cost early education (KPS 2017). Other districts with less full state support are using federal resources to expand local options. For example, Vancouver relies on government- and federally funded early childhood learning programs to deliver pre-K programs in seven schools, as well as district-funded programs for Title I school children. Starting in the fall of 2015, Vancouver's new Early Learning Centre serves up to 100 or more children, with hot meals and playgrounds at an adjacent elementary school. Montgomery County is also improving Through investments at the district level: it provides the same literacy-rich curriculum in its Head Start classrooms as in pre-K district classrooms. And Montgomery County uses a mix of title I and Head Start federal dollars to offer a full day of head start in 18 of the poorest schools, serving 460 children (Marietta 2010). The Northside Achievement Zone in north Minneapolis uses money from the Federal Race to the Top Early Learning Fund to obtain scholarships for three- and four-year-olds to attend high-quality pre-K, serving 127 children in 2012-13 and 156 in 2013-14. Local programmes can also fill in the are weak. Austin, Texas, uses local funds to provide enriching full-day programs for four-year-olds who would otherwise participate in lower-quality half-day state programs. Austin also offers a half-day program for three-year-olds who are not served by the state. Families who are eligible for pre-K and advance government also receive nutrition, health and other services (AISD 2017). Pea Ridge is another community that uses local resources to supplant state resources. The lack of available spaces for children eligible for the state's high-quality Arkansas Better Chance (ABC) pre-K program prompted Pea Ridge to apply for a grant to open its own program, which serves 40 children: 20 at-risk children, who receive scholarships, and 20 others whose parents can pay tuition (Weiss 2016f). Missouri's pre-K program also has too few slots, so Bright Futures Joplin is building a new early childhood learning center that will be jointly funded by the district and state. Strengthening the transition to the star kindergarten districts also builds on pre-kindergarten earnings and helps narrow school readiness gaps with programs such as kindergarten and full-day kindergarten. Montgomery County public schools began full-day kindergarten in Red Zone Schools, which were considered to be most affected by high student poverty rates in 2000. Since then, full-day kindergarten has spread to all schools in the district (Marietta 2010). And Vancouver offers Jump Start Kindergarten, a school preparation program, in all 21 elementary schools, and full-day kindergarten; both programs aim to improve the transition from pre-K to formal education. Other Investments in Young Children and Their Families In addition to the range of supports for infants, toddlers and preschoolers and their parents, several of the districts studied by BBA have made additional investments in young children and their families. The Community Storywalk in Clay County, Kentucky, and the Born Learning Trail in Joplin, Missouri, provide opportunities for parents and paid caregivers to learn with their children in a hands-on path through outdoor and physical activities. In eastern Kentucky, Partners for Education's Promise Neighborhood grant supports the work of Save the Children, a national non-profit organization, to improve health and education outcomes for through a literacy program that provides children aged 5 to 12 with books and tools to develop strong reading skills. The promised Neighbourhood Grant also allows Partners for Education to offer the Healthy Kids Child Program, which provides healthy snacks and 30 minutes of daily physical activity for children in eastern Kentucky districts. Joplin's Little Blue Bookshelf program offers age-appropriate books to children whose families cannot afford them, making the goal of 1,000 hours of kindergarten reading a viable reality for every child. And the city's Lead and Learn libraries offer stimulating toys and socializing time for young people and their parents. How School Districts Invest in K-12 Strategies to Support and Boost Early Childhood Investments The approaches these communities include for children from birth to five years of age continue as these children move into kindergarten and elementary, middle and secondary school. This is a marked difference from most other districts, which focus on narrow academic factors and assessments and thus neglect the pre-term characteristics of teacher-student relationships and consideration of all children's assets and needs. As these examples illustrate, students continue to benefit from a more holistic approach to education and there are a range of strategies that school districts can use to implement this comprehensive approach. Enriching K-12 programs and activities to maintain the focus on the entire kindergarten child A broad set of investments and activities can help support the pre-kindergarten approach of the entire child, including improving classroom experiences, aligning classroom lessons with extracurricular activities that broaden children's worldviews, and using targeted strategies to improve student readiness at university careers and civic engagement. Schools that provide hands-on learning outside and outside the classroom take advantage of this opportunity. Students at Joplin and Pea Ridge and their teachers appreciate service learning projects that are an essential part of the Bright Futures strategy. These range from kindergartens organizing coat drives and canned food drives for their neighbors to high school students designing and implementing water research projects and reporting on the health and safety of Joplin's water supply to the city's water management agency. In East Durham, partnerships with community and not-for-profit organizations allow clubs, museum tours and other enrichment activities. After-school and summer programs help students take advantage of what they have learned during the school year, expand students' visions and skills, and reduce summer learning losses. In most of the districts studied, schools partner with organizations such as the YMCA, boys' and girls' clubs, Scouts and 4-H to provide out-of-school enrichment programs ranging from organize sports and homework assistance to math clubs books, theatre and robotics. In addition to stimulating student engagement and focus on helping with college study programs, and many also offer healthy snacks or even hot meals and hot drinks at school. Summer camps in Boston and East Durham and back-to-back camps in Berea and Pea Ridge offer enrichment and help fill long distances in rural areas. Keeping students reading, engaged and on track for classes. In many districts, the focus is not only on maintaining and improving reading skills, but also on their social and emotional skills, reinforces the transition to kindergarten and development throughout the K-12 period. Vancouver schools teach and model Clarendon Learning as part of the District's work to improve the school climate and track student data on engagement and mental health. As part of City Connects — the whole child's collaboration between Boston College, Boston Public Schools and community organizations — school coordinators meet with teachers at the beginning of the year to discuss the strengths and special needs of each student and develop plans to support teachers in their school and enrichment activities and meet the needs of students with small group sessions on healthy eating and bullying behaviour , references to mental health care providers and a range of other supports (Weiss 2016g). Two districts have made social and emotional learning a particularly high priority. Austin is one of eight districts working with the Collaborative for Academic, Social, and Emotional Learning (CASEL) to integrate social and emotional learning globally into teacher training, teacher standards, curricula and measures to assess student and school progress (CASEL 2017). In Montgomery County, former Superintendent Joshua Starr relied on the Common Core's focus on problem solving and critical thinking to lead the design of a new curriculum and classroom practices that promote social and emotional skills. They are complemented by increased support for teachers to promote social and emotional learning in daily classroom practices, by report cards based on standards that follow key social and emotional skills, and by constructive disciplinary policies that re-engage students and strengthen their gentle skills rather than punish them for offences.30 Several districts focus on helping students in particular , many of whom will be the first in their families to go to university — to prepare and make this leap. Strategies include transition programs between middle and high schools in Joplin and Vancouver and clubs and specialized courses that advance the social and organizational skills of students in Vancouver and Montgomery County. In East Durham, three initiatives (Communities in Durham, Student U and Citizens in Schools) support young people who are preparing to graduate. They offer site-based mentoring to current undergraduate students. Middle and high school students in the Minneapolis Northside Success Zone receive similar assistance. In addition, Vancouver's GRADS Teen Parent program helps adolescent parents to graduate and to be more effective parents. The disadvantage, an intentional decision not to separate students who reach different levels in different classrooms or types of courses, which is the norm in Austin and in some Montgomery County high schools, helps to ensure that college preparatory classes serve students of all income levels rather than wealthier and non-minority students.31 College preparation is also a high priority for many districts of Bright Futures. In Joplin, programs such as Operation College Bound improve students' understanding and access to post-secondary education, in addition to initiatives that help transition to higher education and other sensitive periods in their school life. And in Pea Ridge, specialized high schools such as The Manufacturing and Business Academy and Pea Ridge Academy offer targeted support to students who want to go straight to jobs and careers or need special academic supports. Mentoring and Tutoring to Get and Keep Students Engaged In Case Study Districts, the whole child's approach includes understanding the critical importance of individual relationships with caring adults that support the school and broader needs of children. Strategies can be as simple as the car and bus boyfriend who greet the kids in Pea Ridge each morning when they arrive at school, or as intensive as the volunteer lunch buddies who meet regularly with students from Joplin and Pea Ridge to eat with them, talk about their days and offer advice. Northside Achievement Zone in North Minneapolis partners with Big Brothers Big Sisters to connect students with mentors, and more than 500 volunteer mentors in Vancouver, Washington, supporting students in family and community resource centers. These relationships are essential to efforts in large urban districts and remote rural areas. The Children's Aid Society has partnered with the New York City Department of Education to integrate a strong school curriculum with non-school enrichment programs, as well as to provide child and family support services designed to remove barriers to student learning (Weiss 2016h). Children's Aid Community Schools offer both tutoring and mentoring among their extracurricular options, as does City Connects Schools in Boston. In eastern Kentucky, mentors use Skype to communicate with eighth- and ninth-graders in promised schools to bridge the gap between one school and another. Supporting Student Health and Family Well-being as a Tool to Support Early Earnings Several of the districts studied have established health clinics in some or all of their schools, including Montgomery County, Vancouver and New York. In other districts, such as Austin, school coordinators can arrange the arrival of mobile clinics in schools. These clinics provide basic preventive care through immunizations and examinations, as well as prescriptions and other care for sick children, physical and mental health examinations, follow-up counselling, mental health care and even crisis intervention as needed. Nutrition is another key factor that affects physical and mental health and therefore learning. In East Durham, Back Pack and summer meal programs prevent hunger and keep children fed. The pantry and clothing, as well as social media awareness in Pea Ridge and Joplin, enable counsellors and teachers to respond to targeted immediate needs so that students can focus and learn. Montgomery County has expanded its classroom breakfast program to serve all students in an increasing proportion of schools (MCPs 2017). Many of these districts are looking beyond the and nutrition must advance the well-being of their families and strengthen them. GoReady from Vancouver! Back-to-school festivals offer backpacks, school supplies, shoes and socks, vaccinations, dental exams, and even haircuts, as well as resources from community partners. In eastern Kentucky, physical and mental health supports provided through state-supported family resource centres and youth services are complemented by collaborative activities between the school and the community through a running/walking club, a summer fitness program, a Jump Start program, and gardening and food preservation activities. And the East Durham Children's Initiative is organizing a healthy living initiative that directs families to nutrition counselling programs, Zumba classes, cooking demonstrations and walking groups; it also distributes children's bicycles and partners with local farmers' markets to provide families with fresh produce. Although research has long affirmed the importance of parenting, many schools have difficulty engaging parents meaningfully. Case study

early childhood study asks parents and teachers to assess children's abilities these skills. The specific skills measured can vary between the home and the classroom. Teachers probably rate their students' skill levels relative to those of the other children they teach. Parents, on the other hand, can base their expectations on family, community, culture or other factors. 7. See Garcia 2015 for a discussion on the factors of children's small lives and their individual and family characteristics (in addition to social class) that cause gaps among children in the 2010 kindergarten class. 8. Note that SES quintiles are constructed using the distribution of each year, and that changes in overall and relative distribution may affect the characteristics of children in different quintiles each year (i.e. there may be some groups that are relatively over-represented in one or the other quintile if changes in its components have diverged over time). 9. The detailed frequency with which parents develop or practice certain activities with their children at home and others is available on request. 10. The literature on parental expectations and behaviours at home finds that they are positively correlated with cognitive development and outcomes in children (Simpkins, Davis-Kean and Eccles, 2005; Wentzel, Russell and Baker 2016). This literature recognizes the multiple ways in which expectations and behaviours influence academic achievement, as well as the importance of race, social class, and other factors as moderators of these associations (Davis-Kean 2005; Redd et al. 2004; Wentzel, Russell and Baker 2016; Yamamoto and Holloway 2010). 11. This may be affected by the fact that the largest number of books reported in 1998 was over 200, whereas in 2010 parents could choose from more categories, up to more than 1,000. We had to use 200 as a ceiling to compare the data for the two kindergarten classes. 12. The evidence also indicates many other factors that affect children's school readiness, and these have likely changed over this period. For example, access to antenatal care, health screenings and nutritional programs could all have affected children's development differently between these two cohorts, but we do not have access to this data and therefore cannot control it in our study. On the links between school readiness, children's health and poverty, see AAP COCP 2016; Currie 2009; U.S. HHS and U.S. ED 2016. 13. Models include all quintiles in their specifications. Tables that offer a comparison for all quintiles versus the first quintile are available on request. We focus discussion of the gap between the top and bottom. 14. As a result, sample sizes are becoming smaller (see Table C1 of the Appendix). Assuming that the lack (observations without complete information) is completely random, the results are representative of the original sample and the populations they represent. The analytical samples once the lack of defect is accounted for are called the complete case samples. We tested to see if the deficiencies estimated above with the full sample remained the same when using the complete case samples. For Model 1, we found an average difference of 0.01 dd in the 1998 1998 1998 1998 1998 deviation estimates, and an average difference of 0.02 sd in estimates of the evolution of ables. For Model 2, the differences were 0.01 dd for deficiency estimates and 0.04 for changes in deficiency estimates. In terms of statistical significance, there are no significant changes in estimates associated with the 1998 deficiencies, but there are two changes in the statistical importance of estimates associated with changes in ables by 2010-11, and a change in the magnitude of the coefficient. The first change in the statistical importance of estimates associated with changes in spreads by 2010-11 is the change in the gap in learning approaches as reported by parents, which is statistically significant when using the small sample (0.07 sd, at the 10 percent importance level, model 1); and the second is the change in the difference in mathematics which also becomes statistically significant when using the small sample (0.09, at the 10 percent importance level, model 2). Finally, the only change in the magnitude of the coefficient in this model is the estimate of the difference in reading, which increases with the use of the small sample (from 0.12 sd to 0.18 sd). The results are available on request. 15. These interactions between inputs and time criteria to determine whether input influence in 2010 is lower than, the same or greater than input influence in 1998. In addition, although only fully specified results are presented, as indicated in Appendix B, these sets of controls are recorded sparingly to determine the extent to which gaps and significant changes in differences over time are merely the inclusion of family characteristics, the increased inclusion of family investments and, finally, the inclusion of parental expectations (for the inclusion of parental expectations), we incorporated the interactions of covariations with parsimoniously time as well). For all the results, and by focusing on models without interactions between covariations and time, we find that all gaps in 1998 are continually narrowing as we add more controls. For example, in reading, the addition of family characteristics reduces the gap by 11 per cent in 1998, the addition of investments further reduces it by 15 per cent, and the addition of expectations further reduces it by 9 per cent. In mathematics, these changes are equal to 16%, 13% and 10%. For changes in the gap by 2010-11, both for the that for mathematics, the addition of family characteristics and investments reduces changes in the gaps, but the addition of expectations slightly increases the estimated coefficients (which are statistically significant for reading, but not for mathematics in these models. For self-control (as reported by teachers) and approaches to learning (by parents), which are the only two non-cognitive skills for which the change in the gap is statistically significant the addition of family characteristics reduces the change in the gap coefficient (by 2010-11), but the addition of investment increases it, and the addition of expectations further increases the changes in the spreads by 2010-11. These results are not listed in the appendices, but are available on request. 16. The interactions between parental expectations of children's educational attainment and the time-varying criterion for determining whether the influence of expectations in 2010 is less, the same or greater than the influence of expectations in 1998. 17. The evolution of skills gaps by SES in 2010 due to the inclusion of controls is not directly visible in the tables of this report. To see this, see the comparison of the estimates of the MS1-MS3 models in Garcia 2015. The evolution of skills gaps by SES in 1998 is directly observable in Tables 3 and 4 and is discussed below. 18. Figures in the education column in Table 5 (showing the shares of SES-based skill gaps that are taken into account by controls) are still higher for 1998 than in 2010. 19. Please note that up to this stage of the report, we have been directly interested in ses deficiencies and not in the results (although the ses deficiencies are the result of SES's influence on performance, leading to a differential performance of children by SES and therefore to a performance gap). The above paragraphs highlight how controls respond to or explain some of the skills gaps in SES, so that, in some way, controls inform our analysis of deficiencies because they reveal how changes in deficiencies may have been affected by changes in the ability of various factors to influence performance. Now the focus is on exploring the independent effect of covariations of interest on performance. In this report, because we question whether education and certain practices affect outcomes, the main effect is measured for the 1998 cohort, and we measure how it changed between 1998 and 2010. The detailed discussion on the correlation between covariations and results in 2010 is expected in Table 3 of Garcia 2015. 20. This variable indicates whether the child was cared for in a central setting in the year prior to kindergarten, compared to other options (as explained in Garcia 2015, these alternatives do not include any non-parental care arrangements; being cared for by a parent, a relative, at home or outside; or a combination of options. Any conclusions associated with this variable can be interpreted as the association between pre-kindergarten programs, compared to other options, but should be interpreted with caution. In other words, may have followed a high-quality pre-kindergarten program, which could have been private or public, or of poor quality, with different implications. It could have been placed in high- or poor-quality (non-food) daycares for little or several hours a day, with very different implications for its development (Barnett, 2008; Barnett 2011; Magnuson and 2004; Magnuson, Ruhm and Waldfogel 2007; Nores and Barnett 2010). For the extensive literature explaining the benefits of pre-K education, see Camilli et al. 2010, and for a meta-analysis of the results, see Duncan and Magnuson 2013. Thus, more detailed information on the characteristics of non-parental care arrangements (type, quality and quantity) would help researchers further unravel the importance of this variable. This additional information would provide a much clearer picture of the effects of early childhood education on different educational outcomes. 21. Because these associations seemed counterintuitive, we checked whether they were sensitive to the composition of the index. We removed one component of the index at a time and created five alternative measures of other enrichment activities that parents do with their children. The results indicate that the negative association between the index and the reading is not sensitive to the components of the index (the coefficients for the main effect, i.e. for the 1998 effect between -0.14 and -0.09, are all statistically significant). For mathematics, associations lose some precision, but retain the negative sign (negative association) in four of the five cases (minimum coefficient is -0.06). As a caveat, these components do not reflect whether the activities are undertaken by the child or guided by the adult, the time devoted to them, or how much they involve the use of vocabulary or mathematical concepts. Associations may indicate that the time spent on non-academic activities interferes with parents' time to devote to activities designed, among other things, to strengthen their reading and math skills. These results are available on request. 22. Note that in this section, social class and socioeconomic status (SES) are treated as equivalent terms; in the rest of the report, we call SES as a construction that is a measure of social class. See Appendices C and D for discussions of two other sensitivity analyses, one based on the attribution of missing values for the main analysis in this article, and the other on the use of various measures of cognitive variables. Overall, our results were not sensitive to various multiple imputation tests. With regard to the use of different measurements for cognitive variables, some sensitivity of point estimates was detected. 23. With some activities that are already offered to high-level children, there may be little room to do more for them. For example, there is only 24 hours a day to read to your child, so there is a ceiling to read from an hourly ceiling. But perhaps there is still room to improve the influence of reading, if, for example, the way in which it is made changes. 24. Eight of the 12 districts explored in this paper are the subject of published case studies. Case studies for the other four are underway and will be published later this year. Citing information from the publication studies, we cite the specific published study. For the four that have not yet been published, we refer to the original sources used to develop the case studies. 25. Missing or incomplete cells in the table indicate that data were not available on this aspect of student demography or other characteristics. According to the source note, most of the data came from either district websites or NCES. 26. Across the country, poverty rates, which had increased before 2007, accelerated rapidly during the recession and as a result (until 2011-12), and minority students (mainly Hispanic and Asian) increased in proportion to the U.S. public school student organization. Between 2000 and 2013, even with a decline in the proportion of black students, the share of the minority student body (black or Hispanic) increased from 30.0% to 40.5%, and the proportion of low-income students (those eligible for a free or discounted lunch) also increased, 38.3% of all public school students in 2000 to 52.0% in 2013 (Carnoy and Garcia 2017). The Southern Education Foundation revealed a troubling tipping point in 2013: for the first time since this data was collected, more than half of public school students (51%) qualified for free or reduced-price meals (i.e., more than half of students lived in households below or below 185% of the federal poverty line). Overall in the South, shares were much higher, with the highest percentage at 71 percent, or nearly three in four students, in Mississippi (Southern Education Foundation 2015). 27. A comprehensive cross-sectional analysis of the reasons and how these districts have used comprehensive educational approaches and whole children will be published as part of a book based on these case studies. 28. The federal Early Head Start (EHS) program includes both a home visit and a centre-based component, and many low-income infants and toddlers have benefited from a combination of both. EHS studies find improved cognitive, behavioural and emotional abilities for children as well as improved parenting behaviours. 29. According to a major source of data on access and quality of the state's pre-K programs, the preschool directory produced annually by Rutgers University's National Institute for Early Childhood Research (NIEER) in 2015, 45 states and the District of Columbia funded 57 programs. In addition, programs continued to recover from cuts during the Great Recession, enrollment, quality and per-pupil expenses were on the rise, compared to the previous year, although with the important caveat that two major states – Texas and Florida – have lost ground, and that (for the nation as a whole) – access to a high-quality preschool program has not increased, and this is unlikely to change in the foreseeable future unless many other states follow the lead of New York. 30. Interview with Joshua Starr with Joshua Starr, June 2017. 31, 31, and Levy, 1996. Interview with Joshua Starr by Elaine Weiss, June 2017. 32. In recent years, a growing number of reports have revealed that some charter schools, which are often financially public schools and often out their successes in serving disadvantaged students – prevent students from succeeding through complex application processes, fees, parent participation contracts and other mechanisms, and then to gain the student body of these students by pushing them when they struggle academically or behaviourally. To learn more about this topic, see Burris 2017, PBS NewsHour 2015 and Simon 2013. 33. See AIR 2011 and Sparks 2017. Federal models for school improvement, in order of severity (from the lightest to the most rigorous) are referred to as transformation, recovery, reboot and closure (AIR 2011. 3). 34. Although the cutting mark on a given assessment or test required for a student to be considered competent is arbitrary and, in Minnesota and many other states, changes from year to year and from one assessment to the next, these gains are a useful indicator of the effectiveness of the program, as they are comparable over the period described. 35. Joplin's statistics come from internal data produced for the superintendent at the time that are no longer available. 36. Participation Works, a national campaign to reduce chronic absences, highlights a series of studies that document and explain the links between chronic absenteeism, physical and mental health of students and student achievement. Research areas include absenteeism in primary school, absenteeism in college and high school, health problems, and local and state data on how these problems are unfolding, among others. 37. Elaine Weiss interview with C.J. Huff, June 2016. 38. See Appendix D for an analysis of the results using other measurements for reading and math results. The results are not significantly different from one measure to another, although the point estimates differ slightly. 39. This latter feature will be explored in a complementary document to it, as soon as the necessary information is published by NCES. (As Noted by Tourangeau et al. [2013], the evaluation results for the 2010-11 cohort are not directly comparable to those of the 1998-99 cohort. We are waiting for the availability of this data to conduct a follow-up study that allows us to learn whether the starting knowledge levels have increased over these years, and what the relative gains were for different demographic groups.) 40. We recognize that there are multiple areas of public policy and economic policy that are not being considered to solve the problems studied in this report, namely all those who guarantee that other factors that are correlated with the low SES are addressed and, of course, those that lead to fewer children with low SES. These other policies could help ensure that more children grow up in environments with adequate resources and a healthy environment, or leave fewer children without integrated support at home who need to be compensated in the future. We're these points in the first two studies, and in the brief policy companion of this study (Garcia 2015; Garcia and Weiss 2015; Garcia and Weiss 2017). Putnam (2015) used a similar global approach to policy recommendations. AAP Council on Community Pediatrics (AAP COCP) references. 2016. Poverty and Child Health in the United States. Pediatrics 137. No. 4, pii=20160339. Adamson, Frank and Linda Darling-Hammond. Funding Disparities and the Injustice Distribution of Teachers: Evaluating Sources and Solutions. Education Policy Analysis Archives Vol. 20 (November). 37. Alvarez, Lizette. One Man's Millions Turn a Community in Florida. *New York Times*. May 25. American Institutes for Research (AIR). 2011. School recovery: A pocket guide. Austin Independent School District (AISD). 2017. Pre-K 4 (section on the ISSA website). Baker, Bruce D., and Sean P. Corcoran. 2012. Wealth inequalities in childhood. The Center for American Progress. Barbarin, O.A., J. Downer, E. Odom, and D. Head. 2010. Differences between beliefs, support and control at home and at school during public kindergarten and their connection to kindergarten preparation for children. *Early Childhood Research Quarterly* Vol. 25, No. 3, 358-72. Barnett, W. Steven. 2008. Preschool education and its lasting effects: research and political implications. Great Lakes Center for Education Research and Practice. Barnett, W. Steven. 2011. Effectiveness of early education of intervention. Science 333, 6045, 975-78. doi:10.1126/science.1204534. Barnett, W. Steven, Elizabeth Votruba-Drzal, Eric Deering and Megan E. Carolan. 2017. Publicly Funded Early Childhood Care and Education Programs. In the *Wiley Handbook of Early Childhood Development Programs, Practices, and Policies*, Elizabeth Votruba-Drzal and Eric Deering, Ed. Malden, Mass., and Oxford: John Wiley, Bassok, Daphna, Jenna E. Finch, RaeHyuck Lee, Sean F. Reardon and Jane Waldfogel. 2016. Socio-economic gaps in early childhood experiences: 1998 to 2010. *AERA Open* Vol. 2, No. 3, Bassok, Daphna and Scott Latham. Kids Today: Changes in School-Readiness in an Early Childhood Era. *EdPolicyWorks Working Paper Series* No. 35. Berea College. 2013. U.S. Secretary of Education Visits First Rural Promise Neighborhood (communicated). November 12th. Bradbury, Bruce, Miles Corak, Jane Waldfogel and Elizabeth Washbrook. 2015. Too many children left behind: the success gap in the United States from a comparative perspective. New York: Russell Sage Foundation. Brooks-Gunn, Jeanne and Lisa Markman. 2005. The contribution of parents to ethnic and racial gaps in school readiness. *Future of Children* 15, No. 1, 139-68. Bivens, Josh. Gradual redistribution without guilt. Using politics to change economic power and grow fairer and faster U.S. revenues. Institute of Economic Policy. Bivens, Josh, Emma Garcia, Elise Gould, Elaine Weiss and Valerie Wilson. 2016. It's time to invest in Children: Investments in early childhood care and education would have enormous benefits for children, families, society and the economy. Institute of Economic Policy. Boston College Center for Optimized Student Support. The Impact of City Connects: Progress Report 2012. Boston College Center for Optimized Student Support. The Impact of City Connects: Progress Report 2014. *Burris*, Carol. What the Public Isn't Told about High Performing Charter Schools in Arizona. *Washington Post Answer Sheet* blog, March 30. Camilli, Gregory, Sadako Vargas, Sharon Ryan and W. Steven Barnett. 2010. Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record* Vol. 112, No. 3, 579-620. Carnoy, Martin and Emma Garcia. 2017. Five key trends in student performance in the United States. Progress made by blacks and Hispanics, the take-off of Asians, the dropout of non-English speakers, the persistence of socio-economic gaps and the harmful effect of highly secluded schools. Institute of Economic Policy. Carter, Prudence L., and Kevin G. Welner. 2013. Closing the Opportunity Gap: What America needs to do to give every child an equal chance. New York: Oxford Univ. Press. Caspe, Margaret and Joy Lorenzo Kennedy. 2014. Sustainable success: the long-term benefits of high-quality early childhood education. New York: Children's Aid Society. Chaudry, Ajay, Taryn Morrissey, Christina Weiland and Hirokazu Yoshikawa. Cradle to Kindergarten: An New Plan to Combat Inequality. New York: Russell Sage Foundation. Chetty, Raj, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca and Jimmy Narang. The Fading American Dream: Trends in Absolute Income Mobility since 1940. Working paper NBER 22910. Child trends. Making the Grade: Assessing the Evidence for Integrated Student Supports. Clark, H., et al. 2009. A study comparing children's Aid Society community schools with other public schools in New York City (all schools and schools by peers). *ActKnowledge*. Coleman, J.S., E. Campbell, C. Hobson, J. McPartland, A. Mood, F. Weinfeld, and R. York. 1966. Equal educational opportunities. Washington, D.C.: U.S. Office of Education. Collaboration for Academic, Social and Emotional Learning (CASEL). 2017. Partner Districts: Austin (web page). Consulted August 31, 2017. Cook-Harvey, C.M., L. Darling-Hammond, L. Lam, C. Mercer, and M. Roc. 2016. Equity and ESSA: Leverage Educational Opportunity Through the Every Student Succeeds Act. Palo Alto, Calif.: Learning Policy Institute. Cunha, Flavio and James J. Heckman. 2007. Skills Training Technology. *American Economic Review* 97, No. 2, 31-47. Currie, Janet. Healthy, Wealthy, and Wise: Socio-economic status, Poor Health in Childhood, and Capital Development. *Journal of Economic Literature* Vol. 47, No. 1, 87-122. Davis-Kean, Pamela E. 2005. The influence of parental education and family income on children's success: the indirect role Expectations and the home environment. *Journal of Family Psychology* Vol. 19, No. 2 (June 2005), 294-304. doi:10.1037/0893-3200.19.2.294. Duncan, Greg J., Chantelle J. Dowsett, Amy Claessens, Katherine A. Magnuson, Aletha C. Huston, Pamela Klebanov, Linda S. Pagani, Leon Feinstein, Mimi Engel and Jeanne Brooks-Gunn. 2007. Preparing for school and succeeding in the future. *Developmental Psychology* Vol. 43, No. 6, 1428-46. Duncan, Greg J., and Katherine A. Magnuson. 2011. The nature and impact of early realization skills, attention skills and behavioural problems. In *Whither Opportunity?: Rising Inequality, Schools, and Children's Life Chances*, Greg J. Duncan and Richard Murnane, 47-69. New York: Russell Sage Foundation. Duncan, Greg J., and Katherine Magnuson. 2013. Investing in Preschool Programs. *Journal of Economic Perspectives* Vol. 27, No. 2, 109-32. Duncan, Greg J., Pamela A. Morris, and Chris Rodrigues. 2011. Does money really matter? Estimating the impact of family income on early child success using data from random assignment experiences. *Developmental Psychology* Vol. 47, No. 5, 1263-79. doi:10.1037/a0023875. Duncan, Greg J., and Richard Murnane. 2011. Introduction: The American Dream, Then and Now. In *Whither Opportunity?: Rising Inequality, Schools, and Children's Life Chances*, Greg J. Duncan and Richard Murnane, ed. New York: Russell Sage Foundation. Institute for Economic Policy (IEP). 2012. The Great Recession: State of Working America function. Institute for Economic Policy (IEP). Inequality is (interactive website). Elmore, Richard, David Thomas and Tonika Cheek Clayton. 2006. Differential treatment in Montgomery County public schools. Public Education Leadership Project at Harvard University. Fiester, Leila. 2010. Early warning! Why read by the end of the third year questions. Kids COUNT Special Report. Annie E. Casey Foundation. Garcia, Emma. 2015. Inequality at the starting point: cognitive and non-cognitive skills gaps among 2010-11 kindergarten classmates. Institute of Economic Policy. Garcia, Emma and Elaine Weiss. 2015. The gaps in early education by social class and start-up children of the United States on uneven grounds. A summary of key findings on inequality at the starting point. Institute of Economic Policy. Garcia, Emma and Elaine Weiss. 2016. Making whole children's education the norm: how research and policy initiatives can make social and emotional skills a focal point of children's education. Institute of Economic Policy. Garcia, Emma and Elaine Weiss. 2017. Key findings of the report inequality in education at the school departure gate. Institute of Economic Policy. Hart, Betty and Todd R. Risley. 1995. Differences in the daily experience of young American children. Baltimore, Md.: Brooks. Heckman, James J. 2008. Schools, Skills and Synapses. *Economic Survey* 46, No. 3, 289-324. Heckman, James J., and Tim Kautz. 2012. Tangible Data on Soft Skills. *Work economics* Vol. 19, No. 4, 451-64. 451-64. Anne T. 2010. Community Organization to Build Partnerships in Schools: The Alliance Schools Movement in Austin. Annenberg Institute for School Reform. Hernandez, Donald J. 2011. Double Jeopardy: How third-year reading skills and poverty influence high school graduation. Annie E. Casey Foundation. Gizri, Sarah. 2016. Bright Futures Looking to Expand to Schools across Shenandoah Valley. localDVM.com, December 9. Jennings, J.L., and T. DiPrete. 2010. The effects of teachers on social and behavioural skills at the beginning of primary school. *Sociology of Education* Vol. 83, No. 2, 135. Kalamazoo Public Schools (KPS). 2017. PEEP Information and Applications (web page). Consulted August 31, 2017. Lee, Valerie E., and David T. Burkam. 2002. Inequality at the starting gate. *Washington, D.C.: Economic Policy Institute*. Levin, Henry M. 2012a. More Than Just Test Scores. *Outlook* 42, No. 3, 269-84. Levin, Henry M. 2012b. The Utility and Need for Incorporating Noncognitive Skills into Large-Scale Educational Assessments. In *The Role of International Large-Scale Assessments: Perspectives from Technology, Economy, and Educational Research*, Matthias von Davier et al. Magnuson, Katherine and Greg J. Duncan. 2016. Can early childhood interventions reduce unequal economic opportunities? RSF: The Russell Sage Foundation *Journal of the Social Sciences* Vol. 2, No. 2, 123-41. Magnuson, Katherine A., M.K. Meyers, C.J. Ruhm, and Jane Waldfogel. Inequality in preschool education and school readiness. *American Educational Research Journal* 41, No. 1, 115-57. Magnuson, Katherine A., Christopher Ruhm, and Jane Waldfogel. 2007. Does pre-kindergarten improve school readiness and performance? *Economics of Education Review* 26, No. 1, 33-51. Marietta, Geoff. Lessons for PreK-3rd from Montgomery County Public Schools: An FCD Case Study. Foundation for Child Development. Maryland Department of Education. 2017. Judy Centers (web page). Consulted August 31, 2017. Miller-Adams, Michelle. 2015. Promise Nation: Transforming Communities through Place-Based Scholarships. Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research. Mishel, Lawrence. The Opportunity Dilemma. *American Prospect*, April 9. Mishel, Lawrence, Josh Bivens, Elise Gould and Heidi Shierholz. *The State of Working America*, 12th edition, An Economic Policy Institute Book. Ithaca, N.Y.: Cornell Univ. Press. Mishel, Lawrence and Jessica Schieder. 2016. Stock market headwinds have resulted in less generous savings for some CEOs. Institute of Economic Policy. Montgomery County Public Schools (MCPS). 2015. The graduation rate is increasing, the gap is narrowing for the 2014 MCPS class (public announcement). January 27. Schools Montgomery County (MCPS). 2016. Links to learning (brochure). Montgomery County Public Schools (MCPS). 2017. Maryland Meets for Achievement (web page). Consulted August 31, 2017. Morsy, Leila and Richard Rothstein. 2015. Five social disadvantages Student performance: Why schools alone can't close achievement gaps. Institute of Economic Policy. Murnane, Richard J., and Frank Levy. 1996. Teach new basic skills: principles for educating children to thrive in a changing economy. New York: The Free Press. Murnane, Richard J., John B. Willett, Kristen L. Bub, and Kathleen McCartney. 2006. Understanding trends in performance gaps between blacks and whites in the early years of school. *Brookings-Wharton Papers on Urban Affairs*. Najarian, M., K. Tourangeau, C. Nord, K. Wallner-Allen, and J. Leggett. Next. Early Childhood Longitudinal Study, 2010-2011 Kindergarten Class (ECLS-K-2011), first- and second-year psychometric report. Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. National Center for Education Statistics (NCES) (U.S. Department of Education). Longitudinal early childhood study, 1998-1999 kindergarten class (ECLS-K 1998-1999). National Center for Education Statistics (NCES) (U.S. Department of Education). Longitudinal early childhood study, 2010-11 kindergarten class (ECLS-K 2010-2011). National Institute for Early Childhood Research (NIEER). The State of Preschool 2015. State Preschool Yearbook. New York Times/CBS News. Americans' Views on Income Inequality and Workers' Rights (survey results). June 3rd. Nores, Milagros and W. Steven Barnett. Benefits of Early Childhood Interventions across the World: (Under) Investing in the Very Young. *Economics of Education Review* 29, No. 2, 271-82. Nores, Milagros and W. Steven Barnett. Access to high-quality early care and education: availability and opportunities in America. *New Brunswick, N.J.: Center on Enriching Early Learning Outcomes*. Nores, Milagros and Emma Garcia. Language, immigration and Hispanics. Understand the gaps in early childhood success. Presented at the Association for Public Policy Analysis and Management Fall Research Conference, November 6-8, Albuquerque, N.M. Oakes, Jeannie, Anna Maier and Julia Daniel. 2017. Community Schools: An Evidence-Based Strategy for Equitable School Improvement. *Learning Policy Institute*, June 5. PBS NewsHour. 2015. In the reform of New Orleans, did charter schools leave some students behind? (news segment). Peterson, T.K., 2013. Expanding minds and opportunities: harnessing the power of after-school learning and summer for student success. *Washington, D.C.: Collaborative Communications Group*. Phillips, Meredith. Parenting, Time Use, and Disparities in Academic Outcomes. In *Whither Opportunity?: Rising Inequality, Schools, and Children's Life Chances*, Greg J. Duncan and Richard E. New York: Russell Sage Foundation. Proctor, Bernadette D., Jessica L. Semega, and Melissa A. Kollar. 2016. Income and poverty in the United States: 2015. U.S. Census Bureau, Current Population Reports, P60-256 (RV). Putnam, Robert. 2015. Our Children: The American Dream Crisis. New York: Simon and Schuster. Ready, Douglas D. 2010. Socio-economic disadvantage, school attendance and early cognitive development. *Sociology of Education* Vol. 83, No. 4, 271-86. Reardon, Sean F. 2017. Thirteen ways to look at the black-and-white test difference. Working paper. Reardon, Sean F. 2011. The growing gap between rich and poor: new evidence and possible explanations. In *Whither Opportunity?: Rising Inequality, Schools, and Children's Life Chances*, Greg J. Duncan and Richard Murnane, ed. New York: Russell Sage Foundation. Reardon, Sean F., and Ximena A. Portilla. 2016. Recent trends in income, race and preparation for ethnic schooling at kindergarten entry. *AER Open* Vol. 2, No. 3, 1-18. doi:10.1177/2332858416657343. Redd, Z., L. Guzman, L. Lipman, L. Scott, and C. Matthews. 2004. Parents' expectations of children's level of education: a review of the literature. *Journal of the National Center for Education Statistics*. Doherty, Art, and Bob Grunewald. Early Childhood Economic Development with High Quality Public Return. *Research* Vol. 17, No. 4, 5-12. Richard Rothstein. 2004. *Class and Schools: Using social, economic and educational research to close the achievement gap*. Washington, D.C.: Economic Policy Institute. New York: Columbia University Teachers College. Richard Rothstein. 2010. Family environment in the production of schooling. In *International Encyclopedia of Education*. Dominic J. Brewer, Patrick J. McEwan. Oxford: Elsevier. doi: 10.1016/B978-08-044894-7.01233-1. Saez, Emmanuel. 2016. Striking It Richer: The Evolution of Top Incomes in the United States (Updated with 2015 Preliminary Estimates). Schanzenbach, Diane, Megan Mumford, Ryan Nunn and Lauren Bauer. 2016. Money lightens the load. The Hamilton Project, Brookings Institute. Selzer, Michael H., Ken A. Frank, and Anthony S. Bryk. The Metric Matters: The Sensitivity of Conclusions about Growth in Student Achievement to Choice of Metric The Metric Matters: The Sensitivity of Conclusions about Growth in Student Achievement to Choice of Metric. Educational assessment and policy analysis Vol. 16, 41-49. Sharkey, Patrick. 2013. *Stuck in Place: Urban Neighborhoods and the End of Progress toward Racial Equality*. Chicago, Illinois: Univ. Chicago Press. Simon, Stephanie. 2013. Class Struggle: How Charter Schools Get Students They Want. Reuters. February 15. Simpkins, Sandra D. Pamela E. Davis-Kean, and Jacquelynne S. Eccles. Parental socializing behaviour and children's participation in mathematics, science and computer activities outside of school. *Applied Developmental Sciences* Vol. 9, No. 1, 14-30. doi:10.1207/s1532480xads0901_3. Southern Education Foundation. 2015. A new majority: Low-income students now have a majority in public schools across the country. January, Sparks, Sarah D. 2017. Billions of dollars in improvement spending but not much improvement for students. *EdWeek*, January 19. It's StateCorp. 2015. Data: Release 14 [statistical software]. College Station, Texas: StateCorp LP. Stringhini, Stringhini, et al. 2017. Socio-economic and 25 x25 Risk factors as determinants of premature mortality: a multi-risk study and a meta-analysis of 1.7 million men and women. *The Lancet*. Published online January 31, 2017. doi:10.1016/S0140-6736 (16)33280-7. Tourangeau, K., C. Nord, T. L , A.G. Sorongon. 2009. Early Childhood Longitudinal Study, 1998-99 Kindergarten Class (ECLS-K): Combined Use Manual for Eighth-Grade ECLS-K And K-8 (NCES 2009-004) complete electronic data and code files. U.S. Department of Education. Washington, D.C.: National Center for Education Statistics. Tourangeau, K., C. Nord, T. L , A.G. Sorongon, M.C. Hagedorn, P. Daly, and M. Najarian. 2013. Longitudinal Study of Childhood, 2010-2011 Kindergarten Class (ECLS-K:2011), ECLS-K:2011 Kindergarten Data File and Electronic Codebook (NCES 2013-061). U.S. Department of Education. Washington, D.C.: National Center for Education Statistics. Tourangeau, K., C. Nord, T. L , K. Wallner-Allen, M. C. Hagedorn, M.C. Hagedorn, J. Leggett and M. Najarian. 2015. Early Childhood Longitudinal Study, 2010-2011 Kindergarten Class (ECLS-K:2011), ECLS-K:2011 Kindergarten-First Year Data File and Electronic Codebook. Public Version (NCES 2015-078). U.S. Department of Education. Washington, D.C.: National Center for Education Statistics. Tourangeau, K., C. Nord, T. L , K. Wallner-Allen, N. Vaden-Kiernan, L. Blaker, and M. Najarian. 2017. Early Childhood Longitudinal Study, 2010-2011 Kindergarten Class (ECLS-K:2011) ECLS-K:2011 Second-Year Kindergarten Data File and Electronic Codebook. Public Version (NCES 2017-285). U.S. Department of Education. Washington, D.C.: National Center for Education Statistics. U.S. Department of Education (U.S. ED). A Matter of Equity: Preschool in America. U.S. Department of Health and Human Services (U.S. HHS) and U.S. Department of Education (U.S. ED). 2016. Policy statement in support of the alignment of early childhood health and learning systems. Van Voorhis, F.L., M.F. Maier, J.L. Epstein, C.M. Lloyd, and T. Leung. 2013. The Impact of Family Participation on the Education of Children 3 to 8 Years: A Focus on Literacy and The Outcomes of Mathematics Achievements and Socio-Emotional Skills. The MDRC. Waldfogel, Jane. 2006. What do children need? Public Policy Research Vol. 13, No. 1, 26-34. Weiss, Elaine. 2016. Bright Futures in Joplin, Missouri. A broader and bolder approach to education. Weiss, Elaine. 2016b. Vancouver Public Schools (Vancouver, WA). A broader and bolder approach to education. Weiss, Elaine. 2016c. Partners for Education at Berea College. Berea, A broader and bolder approach to education. Weiss, Elaine. 2016d. Northside Achievement Zone (North Minneapolis, MN). A broader and bolder approach to education. Weiss, Elaine. East Durham Children's Initiative (East Durham, NC). A broader and bolder approach to education. Weiss, Elaine. 2016f. Bright Futures (Pea Ridge, AR). A broader, bolder education. Weiss, Elaine. 2016g. City Connects (Boston, MA). A broader and bolder approach to education. Weiss, Elaine. 2016h. The Children's Aid Society Community Schools (New York, NY). A broader and bolder approach to education. Weiss, Elaine. 2016i. A broader and bolder approach for education policy. A broader and bolder approach to education. Wentzel, Kathryn R., Shannon Russell and Sandra Baker. 2016. Emotional support and expectations of parents, teachers and peers predict the competence of adolescents in school. *Journal of Educational Psychology* Vol. 108, No. 2, 242-255. Yamamoto, Yoko and Susan D. Holloway. 2010. Parental expectations and children's academic performance in the socio-cultural context. *Educational Psychology Review* Vol. 22, No. 3, 189-214. doi:10.1007/s110648-010-9121-z. AppendixEs Appendix A. Introduction of Data Our research benefits from the existence of two complementary studies conducted by the National Center for Education Statistics (NCES), the 1998-1999 Maternal Early Childhood Longitudinal Study and the 2010-2011 Longitudinal Kindergarten Early Childhood Study (below, ECLS-K 1998-1999 and ECLS-K 2010-2011). The data from these studies have multiple advantages and some drawbacks. The studies follow two nationally representative samples of children beginning in their kindergarten year and continuing throughout their primary school years (eighth grade for the 1998-99 cohort and fifth grade for the 2010-2011 cohort). Tracking students over time is one of the most valuable features of the data. The studies include assessments of children's cognitive performance and knowledge as well as skills that fall into the category of non-cognitive, social and emotional skills. The studies also include information on teachers and schools (provided by teachers and administrators) and interviews with parents. Another valuable feature of the data is the availability of two ECLS-K studies (ECLS-K 1998-1999 and ECLS-K 2010-2011), which allows cross-comparisons of two nationally representative kindergarten classes with different political, educational and demographic environments (Tourangeau et al., 2013). Both studies are 12 years apart, or a complete school cycle apart: when the 2010-2011 kindergarten class started school, the 1998-1999 class began the class leading to their graduation. A comparison of the studies thus provides insightful information on the consequences of changes in the system that may have occurred during the school life of an entire cohort. For the 2010 study, the sample included 18,174 children in 968 The 1998 study sample included 21,409 children in 903 schools.ii This existence of data from two cohorts is also a limitation to the current study, as explained by Tourangeau et al. (2013), who note that the evaluation scores for the 2010-2011 class are not directly comparable to those for the 1998-99 class. Although the IRT article (article The theoretical procedures used in the data analysis were similar between the two studies, each study incorporated different elements, meaning that the resulting scales are different. Tourangeau et al. (2013) state that a subsequent publication of ECLS-K data: 2010-2011 will include IRT scores comparable to those of the ECLS-K 1998 cohort. Until the publication of this study, this information had not yet been published, and we use standardized scores, instead of gross scores, for the results reviewed. We can assess changes in the relative position in a distribution (i.e., how far away children are in high and low numbers of SES in 1998 and how far up- and low-SES children are away in 2010), but not overall changes in their performance (i.e., it is not possible to determine whether overall performance has improved, or if the differences are smaller or larger due to an improvement in children's performance in the lower end (especially the lowest fifth) of the distribution or a decrease in children's performance in the high-end (the fifth highest) of the distribution, etc.). A complete comparison remains to be produced, on the availability of data. We use the data for the first wave of each study, corresponding to the fall kindergarten (or school entrance). Results For analyses, we use standardized scores per year for the fall semester. (The 1998 IRT scale scores for reading and math achievements and non-cognitive competency assessments are standardized using the 1998 distribution and its average and dd; for 2010, we use the 2010 distribution average and Sd.) Cognitive skills are assessed using instruments that measure each child's skills: knowledge of printing, letter recognition, beginning and ending sounds, rhyming words, word recognition, vocabulary knowledge and reading comprehension Mathematics skills: conceptual knowledge, procedural knowledge and problem solving; Sense of number, property and operations; Measure Geometry and spatial sense; data analysis, statistics and probability; and models, algebra and Main Non-Cognitive Skills We use the term main to identify a set of noncognitive skills that are measured by the 1998-99 and 2010-11 ECLS-K surveys, which have been relatively widely used in research. Teachers are asked to evaluate each child's: self-control: the ability to control behaviour while respecting the property rights of others, control temperament, accept Peers for group activities and respond appropriately to peer pressure Learning approaches: organizational skills (maintains organized assets); Curiosity (is eager to learn new things); Independence (works independently); adaptability (easily adapts to changes in routine) Persistence in the performance of tasks; focus (ability to pay attention) and the ability to follow the rules of class Parents are invited to evaluate their child: Self-control: ability to control behavior by refraining from fighting, arguing, throwing away and get angry Learning approaches: persistence (continues to work on something until completed); Curiosity (shows interest in a variety of things); Focus (focuses on a task and ignores distractions) useful (help with household chores); Intellectual curiosity (is eager to learn new things); and creativity (in work and play) Covariates For analysis, we use the following set of covariates. The definitions and coding used for covariates, per year, are shown in Appendix Table A1. Appendix B. Methodology Gaps by Socioeconomic Status The following expressions show the specifications used to estimate performance gaps based on socioeconomic status (based on SES). For any achievement result A, we estimate four models: Model 1 shows unadjusted (descriptive) differences for children from different racial/ethnic groups or SES quintiles (the reference group is the lowest SES quintile, SES esse). Model 2 adapts to the school grouping of students in different schools (i.e. student gaps in the same schools). The purpose of this grouping is to take into account school segregation (i.e., concentration of children of the same race, socio-economic status, etc., in schools, which means that the gross average performance of students differs from the adjusted average per group). It provides a comparison of the gaps posted by peer students in the same schools and classrooms (Garcia 2015; Magnuson and Duncan 2016 also offer these estimates). These estimates are based on all available observations (i.e., only children with missing values in the outcome variables are eliminated from the analysis). Due to the lack of response in some of the covariates used as performance predictors, we are building a common sample with observations without missing information in any of the variables of interest (see information on missing data for each variable in Appendix Table C1). We consider two other models: iii Model 3 has deficiencies adjusted for child and family characteristics, pre-kindergarten care arrangements, the number of books the child has, and early literacy practices at home Finally, Model 4 shows fully adjusted differences (adjusted for child and family characteristics, pre-kindergarten care arrangements, early literacy practices at home, number of books the child has and parental expectations) The equation below shows the equation we estimate for models 1 to 4. The main parameters of interest are: These show the performance of the at low SES in 1998, the gap between high- and low-level MENte children in 1998, the evolution of low SES children's scores from 1998 to 2010 and the evolution of the gap between high and low SES children from 1998 to 2010. The high SES deviation from its lows in 1998 is equal (the SES coefficients). The high SES deviation from its lows in 2010 is equal (SESS and year2010xSESS). If it is positive and statistically significant, it means that the gap between high and low children these years. Conversely, if it is negative and statistically significant, it shows a reduction in the gap its. Appendix C. Sensitivity Analysis (I): Multiple Imputation Following standard approaches in this area, we use multiple imputation to assign missing values in independent and dependent variables, to analyze skills gaps and changes in them from 1998 to 2010 by socioeconomic status (main analysis). See the share of missing data per variable in Appendix Table C1. We use mi commands in Stata 14, using chained equations, which jointly model all functional terms. The number of iterations has been set to 20. The imputation is made by year. Our functional form of the imputation model is specified using SES, sex, race, disability, age, family type, number of books, educational activities and parental expectations, as well as original cognitive and non-cognitive variables, as variables to be attributed. We use various specifications, combining different sets of auxiliary variables, mid impute methods, and other parameters, to capture any sensitivity of the results to the model's characteristics. For example, income, family size and ELL status are defined as ancillary variables and used in many of the imputation models. Another imputation option that has been modified between models is the use of weights, as we ran out of imputation models using weights and not using them. In the imputation model, in order to impute the lack of categorical variables, we use the option increase, to prevent the large number of categorical variables to be attributed to causing perfect prediction problems (StataCorp. 2015). The rest of the variables are first imputed as continuous variables. In a second exercise, we also impute SES and educational expectations as ordinal variables (also using the increase option). In order to calculate standardized dependent variables, we use variables derived from imputation variables (also known as passive imputation). This only fills the underlying imputation variables and calculates the respective functional terms from the imputed variables (StataCorp. 2015). In one case, we directly attributed the dependent variables as continuous variables (although we expected that the distribution of the scores imputed in this way would not necessarily have an average of 0 and a standard deviation of 1). Using the imputed data, we estimate Models 1 to 4 according to the specifications explained above

information that influence cognitive scores in more recent papers published by the NCES. In 2015, NCES announced in its ECLS-K User Manual that a change in methodology required a re-enactment and re-declaration of kindergarten reading notes since the publication of the basic year file. Therefore, theta kindergarten reading scores included in the K-1 data file are calculated differently from previously released kindergarten theta scores and replace the kindergarten reading theta scores included in the baseline year data file. The modelling approach has remained the same for and science, so that the recalculation of kindergarten mathematics and theta scores of science was not necessary. (Tourangeau et al., 2015) In the meantime, the most recent data user manual (2017) explains that the method used to calculate theta scores allows theta to be calculated for a given cycle that will not change based on subsequent evaluation administrations (which is not true for scale scores, as described in the next section). Therefore, for any given child, grades of kindergarten, first and second grade same as theta scores published in previous data files, with one exception: thetas reading provided in the basic year data file. After the collection of data from the kindergarten year, the methodology used to calibrate and calculate reading scores changed; therefore, the reading thetas reported in the basic year file are not the same as the kindergarten reading thetas provided in the files with subsequent data [added accent]. Any analysis involving reading theta kindergarten scores and reading theta scores of subsequent rounds, such as an analysis of the growth of reading knowledge and skills between the spring of kindergarten and the spring of the first year, should use reading theta kindergarten scores from a data file published after the base year. Theta reading scores published in the kindergarten data file are appropriate for analyses involving only kindergarten round data; analyses performed with only the data published in the base year file are not incorrect, since these analyses do not compare the maternal scores to the scores of subsequent cycles that were calculated differently. However, now that recalced grades of kindergarten theta are available in kindergarten by first grade and kindergarten through second-year data files, it is recommended that researchers perform any new analysis with theta kindergarten reading recalceance scores. For more information on the methods used to calculate theta scores, see ECLS-K: 2011 First-Grade and Second-Grade Psychometric Report (Najarian et al. to come). (Tourangeau et al.) Therefore, as a result of these changes in the methodology and reports of the NCES, and in light of the comparisons in this appendix, one might expect slight additional changes in estimates using IRT-theta scores for kindergarten reading if the use of post-first round data sets (and probably if the use of IRT-wide scores as well , that these values are derived from theta scores), compared to the first ECLS-K data file: 2010-2011 published by NCES in 2013. We would not necessarily expect, however, changes when using the standardized transformation of these scores, because the NCES documentation does not mention changes in the distribution of scores, only to their values. We will examine these issues further when publishing scores that are comparable across the two ECLS-K studies without any transformation. Appendix E. Descriptions of 12 community-based education initiatives Entire Initiatives that serve part of a school district in Austin, Texas, the needs of children in Austin Independent School District (AISD) schools with the highest concentrations of poor, immigrant and non-English speaking families are supported by a combination of parent organizations (schools with parent organization programs, led by the non-profit Austin Interfaith , form a network of Alliance schools), the intensive integration of social and emotional learning (SEL) into all aspects of school, school, school, transforming schools into community schools (i.e. schools that are hubs for the delivery of school, health and social services). Organizing partners: Austin Interfaith (a non-profit organization of congregations, public schools and unions that is part of the National Industrial Areas Foundation (IAF)); Collaboration for Academic, Social and Emotional Learning (CASEL); American Federation of Teachers (AFT); and the National Education Association (AEN). Schools and students have reached: The IAF/Alliance school system has expanded at its peak to one-quarter of ISSA's primary schools and half of AISD's high-poverty primary schools. CASEL has worked in five high schools, and in the seven colleges and 43 primary schools that support these high schools, to integrate social and emotional learning into school policies and practices. A college and a high school have been transformed into community schools and serve as models for the planned district-wide expansion of the community schools strategy in all ISSA schools. General composition of the student body: Across the district, 60 per cent of students are eligible for subsidized meals, i.e. eligible for a free or discounted lunch (LIF); 28 per cent are English-speaking (ELL) learners; and 10 per cent are special education students. In schools targeted for support for all children, compared to the student body in general, students are poorer, more minority and immigrant, and more likely to live in single-parent households. Key Features: Organizing Parents with Alliance School Teachers allows parents to partner with teachers to advocate for full support for their children. In addition, social and emotional learning (SEL) is integrated into all aspects of school efforts in secondary schools and elementary and middle schools that have worked with CASEL. Finally, health and envelope support measures in high-needs middle and secondary schools, as well as in other community schools, extend to other district schools. Core funding: The district received a grant from CASEL to integrate social and emotional learning into school policies and practices, and also received in-kind support from the NoVo Foundation in the form of technical assistance. United Way of Greater Austin provides funds for wraparound support, and the AFT and nea fund the work and expansion of community schools. Boston, Massachusetts City Connects provides targeted school, social, emotional and health supports to every 20 children the city with the highest proportions of low-income, black, Hispanic and immigrant students. Organizing partners: Boston College Center for Optimized Student Support, Boston Public Schools (BPS) and community organizations. Schools and students affected: The 20 bps schools in the program serve more than 8,000 of the city's most disadvantaged students (out of 125 bps schools and 56,000 students). General make-up of the student body: the 20 urban schools serve the neighbourhoods are poor and racially and ethnically diverse, with a high concentration of English-speaking Hispanic learners. More than 80 per cent of students in these schools are eligible for the FRPL and about half do not speak English at home. Key Features: School Site Coordinators in each school connect students with a range of tailored services and enrichment opportunities offered by a variety of public and private organizations. The state's universal health care supports the physical and mental health needs of all students, and the city's Universal Pre-Kindergarten Program (KSP) now offers quality pre-K for all four-year-olds in Boston. Core funding: In addition to school district budget revenues, the federal Race to the Top funds allocated to City Connects help defray the costs. Several private foundations support various aspects of City Connects' work. Durham, North Carolina The East Durham Children's Initiative (EDCI) focuses services and support for children and their families living in a 120-block area and in high distress of concentrated poverty and high crime in the city. Organizing Partners: Community leaders launched EDCI and engaged the Duke University Center for Child and Family Health to increase capacity. EDCI is now a fully staffed non-profit organization that manages the initiative. Affected schools and students: The 120-block area targeted by EDCI serves students from two neighborhood elementary schools, a college, a high school, and two charter schools. General composition of the student body: The 120-block area is urban and poor with a predominantly black but very diverse student body. Overall, in Durham schools, 66 per cent of students are eligible for the FRPL, almost half are black, nearly one-third are Hispanic and 18 per cent are white. Key Features: EDCI is a location-based initiative modeled on the Harlem Children's Zone, which offers a pipeline of high-quality crib-to-college or career services. These include early childhood supports (which complement the state's pre-K programs), health and mental health services, and after-school and summer enrichment activities. Core funding: EDCI has an annual fund that receives contributions from individuals, corporations, fundraising events and private foundations; it does not seek or receive public funding. Minneapolis, Minnesota The Northside Achievement Zone (NAZ) is a neighborhood of promise, a designation granted by the U.S. Department of Education's Promise Neighborhoods program to some of the most troubled neighborhoods in the nation. Thanks to the children and families living in block 13-17 in NAZ receive individualized supports. Organizing partners: NAZ, the Organization of Beneficiaries of the Promis district, is guided by a 20-member board of directors made up of local leaders. Affected schools and students: The 13-by-18 block area in north Minneapolis serves 5,500 students in 10 public, charter, and parochial K-12 schools, including a high school. General composition of the student body: In this area of poverty poverty residents are African-American, and the median family income is \$18,000. One third of children are homeless or highly mobile (not technically homeless but without stable housing). Key Features: Connectors are essentially case managers who help families develop implementation plans, and navigators connect families to community resources to achieve their goals. The area provides access to high-quality pre-K and parental supports, as well as mentoring, enrichment, college preparatory support, and after-school and summer programs. Basic funding: NAZ is anchored by a federal grant promised neighborhood. NAZ also receives private grants and is able to leverage federal race to the Top Early Learning Challenge funds to support pre-K scholarship slots. New York, New York Through a collaboration between the Children's Aid Society and the New York City Department of Education, 16 community schools in some of the most disadvantaged neighbourhoods in three of the city's five boroughs offer health, nutrition, mental health and other services to students, as well as enriching school experiences , amplified by significant parental and community engagement. Organizing partners: The Children's Aid Society, the New York City Department of Education, the New York State Education Department and other local and state agencies. Affected Schools and Students: Sixteen community schools in three boroughs serve some of the poorest immigrant and minority students in a school system of about one million students. General Student Body Composition: Students in the Children's Aid Society's community schools are at a disadvantage compared to the system as a whole, which serves a low-income, minority student body: more than three-quarters of New York City public school students are eligible for the FRPL, 13% are English-language learners and nearly one in five receive special education services. These schools also have high concentrations of students of color: 27 percent are African-American and 41 percent are Hispanic. Key features: Close coordination with local and state education, health and other organizations, and community partnerships in each school help to wrap health, mental health and enrichment after school and summer, as well as deep parenting and community engagement. Core Funding: A range of public funds, including Title I funding and funding from the Federal Primary and Secondary Education Act (ESEA) of Title I and federal funding from the 21st Century Community Learning Centres program, as well as funding and statements for extracurricular and other programs, are supplemented by funds from individuals and foundations. Orange County, Florida The Tangelo Park Project (TPP) provides cradle support to the university for all children residing in the Tangelo Park neighborhood, very poor and heavily African-American Orlando. Organizing Partners: The Tangelo Park Program Board of Directors, along with Harris Rosen (the hotelier who considered and funds the program), works closely together Tangelo Park Civic Association and the University of Central Florida. Affected schools and students: The program serves all children in the Tangelo Park neighborhood. General Student Body Makeup: Virtually all residents in the low-income neighborhood are African-American or African-Caribbean. Key Features: Colleges' Universal Scholarship, known as Promise scholarships, because they are guaranteed by an established fund, are supported by quality early childhood, health, counselling and after-school and summer programs. Core funding: Harris Rosen funds early childhood care providers and universal college scholarships. Rosen also supports other services, such as a lifeguard at the YMCA, as needed. Initiatives that serve the entire Joplin School District, Missouri Joplin Bright Futures initiative (which has spawned dozens of other Bright Futures affiliated districts under a Bright Futures USA umbrella since its launch in 2010) has a rapid response component that meets the basic needs of children (within 24 hours of a reported need), while strong school-community partnerships help meet the long-term needs of students. Bright Futures also offers meaningful service learning opportunities in each school. Organizing Partners: The Superintendent and High-Level Leadership of the Joplin School District, in collaboration with parents and community, faith, business and social service leaders. Schools and students affected: Bright Futures serves all 7,874 students in the district in all 17 schools. General make-up of the student body: Joplin is a heavily white community. In 2015, almost two-thirds (61%) Joplin students are eligible for the FRPL and 16% are classified as requiring special education; only 3 per cent are English-speaking learners. Key features: The Bright Futures USA frame has three components. First, a rapid response system is designed to meet the health, nutrition or basic physical needs of any student within 24 hours of such a need being reported; this system is supported by combined resources from social service organizations, businesses, faith-based organizations and individual members of the community. Second, school and community councils build community leadership and partnerships with schools to meet long-term needs and maintain systems. Third, service learning opportunities are integrated into all schools to help develop children as citizens. Teachers lead and trained teachers to learn the service. In addition to these three components, Joplin also offers pre-K programs to at-risk students, as well as tutoring, mentoring, and after-school and college preparatory programs based on student needs. Core funding: Federally funded Americorps VISTA volunteers provide in-kind support; Funds from the State Departments of Primary and Secondary Education and Economic Development support Bright Futures work and conferences; and the Regional Economic Security Corporation and a range of private donors complement these sources of government funding. Kalamazoo, Michigan The Kalamazoo Promise, a guarantee by a group of anonymous local philanthropists to provide comprehensive college scholarships in perpetuity for district public high school graduates brought together Kalamazoo Public Schools (KPS), the city, and the community together to develop a comprehensive set of supports that allow more students to use the scholarships. Organizing partners: Kalamazoo Promise and Kalamazoo Public Schools, the local school district, in collaboration with Communities in Schools Kalamazoo (CIS) and other non-profit entities. Affected schools and students: All KPS students (12,216 in 25 schools) who graduate from Kalamazoo Public High Schools are eligible for Promise Scholarships. The CIS works in all schools, but to varying degrees and with varying levels of financial support. General composition of the student body: In this urban-suburban neighbourhood combination, a large majority of students (over 70 percent) are eligible for the FRPL, 12 percent receive special education services and 7% of English-language learners. The proportion of African-American students increased from less than one-third in 1987 to more than half 30 years later; during this period, the proportion of Hispanic students also increased. Key Features: The anchor for comprehensive support is the universality of the Promise college scholarships, which have encouraged community leadership to deliver quality pre-K programs and ensure health, mental health and other supports, and to launch a district-wide effort to create a culture and college resources to support that culture. Core funding: Anonymous donors have committed to funding the Promised Scholarships in perpetuity. CLC is supported by a combination of Title I funding, which helps support school coordinators; 21st Century Learning Grants for extracurricular activities; and individual and philanthropic private donations. Montgomery County, Maryland All Montgomery County Public School (MCPS) students benefit from zoning laws that advance integration and strong union-district collaboration on a rewarding and equity-focused curriculum. These efforts are reinforced by additional funding and wrapping support for schools and communities with high needs. Organizing partners: MCPS, Montgomery County Education Association (the local teachers' union), Montgomery County Council and Linkages to Learning (a joint initiative of MCPS and County Council that focuses on health, social services, community development and engagement to support strong families and healthy communities.) Affected schools and students: The 160,000 students in more than 200 schools are served through selected services. Schools with greater poverty and their communities receive additional funding and support that is broader and more intensive. For example, Links to Learning serves more than 5,400 people — students and their families — per year in 29 schools. More than 3,700 of them benefit from behavioural health poverty mitigation services and reducing non-academic barriers to learning. General student body composition: The MCPS School District as a whole is racially and socio-economically diverse: 30% of students are Hispanic, 29% are white, 22% are African-American, 14% are Asian and 35% are eligible for the FRPL (more than 40% of students were eligible for THE FRPL at some point). On the poorer side of the eastern part of the county, where more intensive supports are provided for entire children, the 10 poorest schools have bodies of students who are eligible for at least 80 percent of FRPL. Key Features: Mixed-use housing policies that enable racial and socio-economic integration advance school-level integration that stimulates learning for low-income students, which the District improves through a variety of forms of support, including high-quality early childhood education, parent and community outreach, reallocation of funds to schools and high-needs students , nutrition and health services, and the emphasis on social and emotional learning. Core funding: The MSMP is heavily funded locally, and there are almost no federal dollars for Title I. The district's child-whole approach is based on a combination of school district and county revenues, as well as federal funding for Head Start programs, pre-K state dollars and other matching grants. Pea Ridge, Arkansas The Pea Ridge School District, a small suburban-rural district outside Fayetteville, Arkansas, is among the new subsidiaries of Bright Futures USA, a national umbrella group that was born from Bright Futures Joplin. As a subsidiary of Bright Futures, Pea Ridge is making good progress in identifying and meeting the basic needs of students, engaging the community in meeting long-term needs and learning services as an essential part of school policy and practice. Organizing partners: Pea Ridge School District and Bright Futures USA. Affected schools and students: Eight hundred and fifty students are served in a primary school, a primary school, a middle school, and a high school, as well as an alternative high school and a new career-technology charter high school. General composition of the student body: The suburban-rural district is predominantly white, with a small but growing Hispanic population, and mainly middle-income with pockets of high-income families and families in poverty. Key Features: The first component of Bright Futures USA's three-part framework is a rapid response system to meet each student's basic health, nutrition and nutrition needs 24 hours through a combination of social service agencies, businesses, faith and individual community contributions. Other components include school and community councils, which build partnerships and community partnerships with schools to meet long-term needs and maintain systems, and integrated service learning in all schools that is enhanced by support training for teachers. Pea Ridge also provides pre-K services to at-risk, at-risk students, as well as tutoring, mentoring and after-school and college preparatory programs for students in need. Core funding: State funding supports meals and other needs in high-poverty schools, and Pea Ridge has secured a three-year private grant to support access for low-income students for low-income students. Vancouver, Washington Family and Community Resource Centers (FCRC) currently serve 16 of Vancouver's most in need public schools (PSVs), with mobile and lighter support in other schools, and plans to expand the entire district by 2020. Organizing Partners: School District Leaders coordinate the program with the support of six central office employees (three of whom have just supported the RCCs). Technical and other assistance is provided by the Coalition for Community Schools. Affected schools and students: FCRC serve 23,500 students in 16 VPS schools: 11 elementary schools, two colleges, two high schools and the Fruit Valley Learning Center (an association of elementary schools and community centres that also offers child care and head start programs). Plans are being expanded from CCRC to 35 VPS schools by 2020. General composition of the student body: In 2015, more than half of students were eligible for the FRPL, with FRPL eligibility rates in some downtown schools exceeding 80%. More than one in five students speak a language other than English at home and 12.5% of students are special education students; in FCRC schools, the share of non-English-speaking students and special education is even higher. Key Services: VPS supports a range of early childhood education programs, including pre-K quality; school and intermediate enrichment; after-school and summer programs (provided by VPS partners); and help parents and families through workshops, help and referral to a range of community resources. Core funding: District and Title I funds, which support the basic needs of the CCRA, are supplemented by cash and in-kind donations from faith-based partners, social services, businesses and associations. Initiative that serves several Eastern School Districts (Appalachian) Kentucky A promised federal Neighbourhood Grant helps Berea College's education partners provide intensive support to students and their families in four counties in Kentucky's Eastern (Appalachian) region and provide lighter supports in 23 other surrounding counties. (Berea College, which was established in 1855 by advocates of abolitionist education, is unique among higher education institutions in the United States. It only admits students economically and academically promising, most of whom are the first in their families to obtain post-secondary education, and it does not charge any tuition fees, so every admitted student can afford to enroll and graduate debt-free.) Organizing Partners: Berea College has launched Partners for Education (PFE), which is now a fully staffed non-profit organization that manages the initiative. Schools and students affected: PFE serves 35,000 people 22 schools in Clay, Jackson, Knox and Owsley counties; tens of thousands more are served less intensively in 23 other counties in the region. General make-up of the student body: The Appalachian region is rural, very poor and heavily white. The regional poverty rate is about 27 per cent (in 2015), and reaches up to 40 per cent in some counties. About 80 per cent of students are eligible for the FRPL and 97 per cent are white. Key Features: Family Engagement Specialists meet directly with families and help coordinate services provided by a range of community partners. Other specialists provide basic services to teaching, preparatory colleges and health and other student wrapping services. Core Funding: The Federal Promises Quarter, full-service community schools and Invest in Innovation grants are the most important sources of funding, but the initiative receives a range of other in-kind funding and supports. ECLS-K 1998-1999 ECLS-K 2010-2011 Socio-Economic Status (SES). The SES is a composite variable reflecting the socio-economic status of the household at the time of data collection. SES was created using components such as the education and profession of the father/man tutor, Education and the profession of mother/female guardian; and household income (see Tourangeau et al. 2009, 7-23-7-30). We use five SES quintile mannequins that are available. We use the following labels in tables and numbers: Low SES indicates the first or lowest socio-economic quintile, Middle-low SES indicates the second lowest quintile, Middle SES is the third quintile, High-middle SES indicates the fourth quintile, and High SES represents the highest quintile or fifth. Socio-economic status (SES). Construction is based on three different components (five total variables), including the educational level of parents or guardians, professional prestige (determined by a score) and household income (see more details in Tourangeau et al., 2013, 7-56-7-60). We use the quintile indicators based on the continuous SES variable (we build them). Children living in poverty. Information on whether the child's household lives in poverty comes from a poverty variable at the household level. Household income is compared to the 2006 census poverty line (which varies by household size) and the household is considered to be in poverty if total household income is below the poverty line set by the U.S. Census Bureau poverty line (Tourangeau et al., 2009, 7-24 and 7-25). Children living in poverty. Information on the issue whether the child's household lives in poverty comes from a household poverty variable. This variable indicates whether household income is less than 200 percent of the U.S. Census Bureau's poverty line. More details are provided in Tourangeau et al. 2013 (7-53 and 7-54). Sex. A variable indicates whether the student is a girl or a boy. Sex. A dummy indicator indicates whether the child is a boy or a girl. Race/ethnicity. One indicates the student's race or ethnicity, whether the child is white, black, Hispanic, Asian or of another ethnic group. Hispanic children are divided into two groups, those whose families speak English at home and those whose families do not. (This last decomposition was first described and used by Nores and Barnett [2014] and Nores and Garcia [2014]). Race/ethnicity. Our analysis includes dummy indicators of whether the child's race/ethnic origin is white, black, Hispanic, Asian or other. Hispanic children are divided into two groups, those whose families speak English at home and those whose families do not. Student age. The age of the student calculated in months. Student age. The student's age is calculated in months. The language at home is not English. A variable indicates whether the language the student speaks at home is a language other than English. Language spoken at home. Our analysis includes a dummy indicator that represents whether the language spoken in the child's home is a language other than English (we call a child in this context an English-speaking learner, or ELL), in relation to whether the language spoken at home is English or English and other languages. Disability. A variable indicates whether the child has a disability that has been diagnosed by a professional (composite variable). Questions in the parents' interview about disabilities ask about the child's ability to pay attention and learn, overall activity level, overall behaviour and relationships with adults, overall emotional behaviour (such as behaviours indicating anxiety or depression), ability to communicate, difficulty hearing and understanding speech, and sight (Tourangeau et al., 2009, 7-17). Disability. A dummy indicator indicates whether the child has been diagnosed with disability. Family type. A variable indicates whether the child lives with two parents, a parent or another family structure. Family type. A variable indicates whether the child lives with two parents in relation to life with a parent or in another family composition. Pre-kindergarten care in a central setting. A dummy indicator indicates whether the child was cared for in a central setting or attended Head Start in the year prior to kindergarten, compared to other options. These alternatives include no non-parental care arrangement and care provided by other means (by a parent or non-relative, at home or outside the home, or a combination of options). Pre-kindergarten care in a central setting. Our analysis includes a dummy indicator of whether the child was cared for in a central setting (including Head Start) in the year prior to kindergarten, other options. These alternatives include no non-parental care arrangement and care provided by other means (by a parent or non-relative, at home or outside the home, or a combination of options). Any conclusions associated with this variable may be such as the association between attending pre-kindergarten (pre-K) programs, compared to other options, but should be interpreted with caution. These coefficients should not be interpreted as the impact of pre-K schooling because the variable information is limited and the model uses it as a control-only variable. For a review of the extensive literature explaining the benefits of pre-K education, see Camrill et al. 2010. Literacy and reading activities. This index takes into account the variance of a wide range of family early literacy practices. Using an activity index instead of the underlying issues, the index is composed of overcoming potential multi-linearity problems and thus improves the properties of our specifications. (This has an alpha of 0.6716). In particular, parents are asked how often (not at all, once or twice a week, three to six times a week or every day) with which they engage with the child in the following activities: reading books; Tell stories singing songs; and talk about nature or do scientific projects. Parents are also asked how often the child reads picture books outside of school, and reads or pretends to read to himself or others outside of school. Literacy and reading activities. This index takes into account the variance of a wide range of family early literacy practices. Using an activity index instead of the underlying issues, the index is composed of overcoming potential multi-linearity problems and thus improves the properties of our specifications. (This has an alpha of 0.6948). In particular, parents are asked how often (not at all, once or twice a week, three to six times a week or every day) with which they engage with the child in the following activities: reading books; Tell stories singing songs; and talk about nature or do scientific projects. Parents are also asked how often the child reads picture books outside of school, and reads or pretends to read to himself or others outside of school. Other Activities Index. Parents are asked how often (not at all, once or twice a week, three to six times a week or every day) with which they engage with the child in the following activities: playing games or doing puzzles; Play sports Build something or play with construction toys Crafts or do scientific projects. (This has an alpha of 0.5972.) Other Activities Index. Parents are asked the frequency (not at all, once or twice a week, three to six times a week or all days) with which they engage with the child in the following activities: playing games or doing puzzles; Play sports Build something or play with construction toys Crafts or do scientific projects. (This has an alpha of 0.5527.) The mother's level of education. This is a grade lower than high school (8th to 12th grade); high school graduate or equivalent, professional/technical program/some colleges; Bachelor's degree or vocational school without a degree, and graduate degree (master's, doctoral or professional). The mother's level of education. This is a grade lower than high school (8th to 12th grade); high school graduate or equivalent, professional/technical program/some colleges; bachelor's or graduate degree without a degree; and graduate degree (master's, doctoral or professional). Income. We adjust the income brackets in 2010 to reflect inflation. We use the continuous variable to build the 18 categories to make it comparable to the 2010 variable. We calculate a continuous income variable using the midpoint between the minimum and the maximum for each category (equal to the 2010 inflation-adjusted values). We calculate the income quintiles using this variable. Income. The initial income variable is divided into 18 categories. We calculate a continuous income variable using the midpoint between the minimum and the maximum for each category. We calculate the income quintiles using this variable. Parents' expectations for education. This is coded as HS or less; 2 years or more of college/schooling; BA, MA, PHD or MD. Number of books the child has. This is represented by a continuous variable (0-200) and a categorical variable coded as 0 to 25; 26 to 50; 51 to 100; 101-199; more than 200. For regression analysis, the variable is divided by 10. Parents are asked: How many children's books -CHILD have/are/ in your home now, including library books? Please include only children's books. Number of books the child has. This is represented by a continuous variable (0-200) and a categorical variable coded as 0 to 25; 26 to 50; 51 to 100; 101-199; more than 200. For regression analysis, the variable is divided by 10. Source: ECLS-K, 1998-99 and 2010-11 Kindergarten classes (National Education Statistics Centre) Copy the code below to include this table on your website. 1998 2010 Variable Percentage missing Percentage missing Race/ethnicity White 0.2 0.5 Hispanic 0.2 0.5 Hispanic 0.2 0.5 Hispanic English language learner (ELL) 6.6 11.8 English Hispanic speaker 6.6 6 6 6 11.8 Asian 0.2 0.5 Other 0.2 0.5 Socio-economic status 5.9 11.9 Family composition: Not living with two parents 15.5 26.3 Mother's education 7.5 42.8 pre-K care, 16.8 17.4 Literacy/Reading Index 15.6 26.4 Other Activities Index 26.5 Parents' Expectations for Children's Education Level 16.1 26.5 Number of Books 16.3 26.7 Results Reading 17.7 1 3.8 Mathematics 13.0 14.2 Self-control (by teachers) 10.4 18.7 Self-Control (by Parents) 15.8 27.3 Approaches to Learning (by Teachers) 10.4 18.7 Self-Control (by Parents) 15.8 27.3 Approaches to Learning (by Parents) 15.8 27.3 Note: For information on the construction of these variables, see Appendix Table A1. Source: ANALYSIS of the ECLS-K EPI, 1998-99 and 2010-11 (National Education Statistics Centre) Copy the code below to include this table on your website. Copy the code below to embed this chart on your website. Copy the code below to embed this chart on your website. Copy the code below to embed this chart on your website. Source: ECLS-K, 1998-99 and 2010-11 Kindergarten classes (National Education Statistics Centre) Copy the code below to include this table on your website. 1998 2010 N (Medium, sd) Min Max Score-reading scale 17,620 (0.1) -1.39 10.13 15,670 (0.1) -2.4 4.06 Theta score-reading 17,620 (0.1) -2.72 4.30 15,670 (0.1) -3.47 5.01 Score at Scale-Mathematics 18,640 (0.1) -1.69 9.86 15,600 (0.1) -2.22 4.23 Theta score-math 18,640 (0.1) -3.13 4.48 15,600 (0.1) -5.78 6.28 Note : N is rounded to the nearest multiple of 10. Source: ECLS-K, 1998-99 and 2010-11 Kindergarten classes (National Education Statistics Centre) Copy the code below to include this table on your website. Model 1 (unadjusted) Model 4 (fully adjusted) Full sample Restricted sample Scale scores Theta scores Scale scores Theta scores Reading Math Reading Math Reading Math Gap in 1998 1.071 0.596 -0.610 -0.684 -0.632 (0.024) (0.022) (0.024) (0.022) (0.031) (0.031) (0.021) (0.031) (0.032) (0.031) Change in gap by 2010 0.098 -0.008 -0.052 -0.078 -0.080 0.051 -0.0 16 -0.002 (0.033) (0.032) (0.032) (0.032) (0.052) (0.048) (0.054) (0.050) By mother's education in 1998 1.294*** 1.457*** 1.412*** 1.502*** 0.696*** 0.681*** 0.739*** 0.685*** (0.038) (0.036) (0.038) (0.035) (0.058) (0.050) (0.048) (0.044) Change in gap by 2010 -0.020 -0.154*** -0.135*** -0.218*** -0.075 -0.119* -0.135* (0.051) (0.049) (0.051) (0.048) (0.082) (0.070) (0.075) (0.067) By number of books Gap in 1998 0.736*** 0.966*** 0.847*** 1.032*** 0.347*** 0.424*** 0.386*** 0.438*** (0.028) (0.027) (0.028) (0.034) (0.031) (0.033) (0.031) Change in gap by 2010 0.083*** -0.019 -0.015 -0.088** -0.540*** -0.818*** -0.594*** -0.829*** (0.039) (0.038) (0.039) (0.038) (0.184) (0.188) (0.181) (0.174) By household income Gap in 1998 1.090*** 1.308*** 1.214*** 1.320*** 0.384*** 0.443*** 0.429*** 0.439*** (0.042) (0.041) (0.042) (0.041) (0.058) (0.060) (0.049) (0.050) Change in gap by 2010 -0.127** -0.230 -0.247 -0.292 -0.006 -0.060 -0.058 -0.099 (0.060) (0.060) (0.060) (0.059) (0.060) (0.059) (0.084) (0.082) (0.076) (0.072) Notes: Standard errors are in parentheses. Asterisks denote a statistical significance: *p< .01, **p< .05, ***p< .01. Source: ECLS-K, 1998-99 and 2010-11 Kindergarten classes (National Education Statistics Centre) Copy the code below to include this table on your website. I. The sample design used to select the study participants was a three-step process of using primary sampling units and schools with probabilities proportional to the number of children and the selection of a fixed number of children per school. In the final stage, children enrolled in kindergarten or non-graduate schools were selected from each sampled school. A group design was used to limit the number of geographic areas and minimize the number of schools and study costs (Tourangeau et al. 2013, 4-1). ii. The first year's dataset followed a stratified design structure (Ready 2010, 274), in which primary sampling units were geographic areas of county or county groups. Approximately 1,000 schools — 903 in 1998 and 968 in 2010 — were selected, and approximately 24 children per school were surveyed. The assessment of the children was carried out by trained evaluators, while the parents were interviewed by telephone. Teachers and school administrators completed the questionnaires in their schools. iii. In the case of sensitivity verification, we estimate Models 1 and 2 using the specifications of Models 1 and 2, but using the small sample (these results are not shown here, but are available on request). iv. As a sensitivity check, we estimate Model 3 parimoniously, including family characteristics only, then adding family investments (pre-kindergarten care arrangements, early literacy practices at home, and number of children's books a), and then adding parental expectations (with and without interactions with time); The results of the sensitivity check are not displayed, but are available on request). C. We refer to the fact that we use the same data and that theta scale and scores are based on the same instruments and are not independent of each other. Advice on this possibility can be found in Reardon (2007), which cites works by Murnane et al. (2006) and Selzer, Frank and Bryk (1994) who also caution against this option. vi. From NCES: NCES: uses the model of good and bad responses to the elements actually administered in an assessment and difficulty, the ability to discriminate and the ability to guess each element to estimate each child's ability on the same continuous scale. IRT has several advantages over the number-right gross score. By using the overall model of good and wrong responses and the characteristics of each element to estimate ability, IRT can adjust for the possibility of a low-capacity child guessing several difficult elements correctly. If the answers on several easy elements are wrong, the probability of a correct answer on a difficult item would be quite low. The omitted elements are also less likely to distort scores, as long as enough elements have been answered to establish a consistent model of good and wrong answers. Unlike the raw right-hand note, which treats omitted items as if they were mishandled, IRT procedures use the response model to estimate the likelihood of a child providing a correct answer for each assessment question (Tourangeau et al., 2017, 3-2). vii. The text cited is abbreviated to remove the variables and formulas specific to the Reardon study and not central here. In addition, an estimated scale note is the estimated number of questions that the student would have obtained correct if he or she had been asked for all the elements on the test. The estimated scale score is obtained by summing the expected probabilities of a correct answer on all elements, taking into account the student's estimated theta score and the estimated parameters of the article (Reardon, 2007, p. 11). ix. These are units also spaced along the scale without a predefined zero point. Point.

[fapujutabufuduzata.pdf](#)
[7583260.pdf](#)
[mozonabipos.pdf](#)
[ninja turtles legends game apk download](#)
[atomic habits book summary pdf](#)
[the trial of dedan kimathi pdf](#)
[using synthetic division to find zeros worksheet](#)
[bacteria and viruses test pdf](#)
[henry cheeseman business law 9th ed](#)
[install qpdf ubuntu 18.04](#)
[qta 5 pc download apk](#)
[wings of fire nightwing rainwing hybrid](#)
[dupray steam cleaner instructions](#)
[water sports merit badge answers](#)
[epic seven pc emulator](#)
[normal_5f87dc20ea62d.pdf](#)
[normal_5f8e2c0f146cd.pdf](#)
[normal_5f871d13b6f5a.pdf](#)