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Making whole-child education the norm

How research and policy initiatives can make social and emotional skills a focal point of children's education

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SECTIONS

Summary

Traits and skills such as critical thinking, creativity, problem solving, persistence, and self-control—which are often collectively called noncognitive skills, or social and emotional skills—are vitally important to children's full development. They are linked to academic achievement, productivity and collegiality at work, positive health indicators, and civic participation, and are nurtured through life and school experiences. Developing these skills should thus be an explicit goal of public education. This can be achieved through research and policy initiatives involving better defining and measuring these skills; designing broader curricula to promote these skills; ensuring that teachers' preparation and professional support are geared toward developing these skills in their students; revisiting school disciplinary policies, which are often at odds with the nurturing of these skills; and broadening assessment and accountability practices to make the development of the whole child central to education policy.

Introduction and key points

The importance of so-called noncognitive skills—which include abilities and traits such as critical thinking skills, problem solving skills, social skills, persistence, creativity, and self-control—manifests itself in multiple ways throughout our lives. For example, having greater focus as a student improves the acquisition of skills, and creativity is widely associated with artistic abilities. Persistence and communication skills are critical to success at work, and respect and tolerance contribute to strong social and civic relationships.

But support for noncognitive skills—also commonly referred to as social and emotional skills—extends far beyond this casual recognition of their impact. Empirical research finds clear connections between various noncognitive skills and positive life outcomes. Indeed, researchers have focused on assessing which skills matter and why, how they are measured, and how and when

these skills are developed, including the mutually reinforcing development of noncognitive and cognitive abilities during students' years in school.[1]

At the same time, there are clear challenges inherent in this work, including those associated with data availability (in terms of measurement, validity, and reliability), the difficulty of establishing causality, and the need to bridge gaps across various areas of research. This points to the need to exercise caution when designing education policies and practices that aim to nurture noncognitive skills. Nonetheless, given the crucial role that noncognitive skills play in supporting the development of cognitive skills—as well as the importance of noncognitive skills in their own right—this is an issue of great importance for policymakers.

Moreover, there is increased recognition, both domestically and internationally, that noncognitive skills are integral to a wider conceptualization of what it means to be an educated person. Indeed, UNESCO's Incheon Declaration for Education 2030, which sets forth an international consensus on the new vision for education for the next 15 years, states, "Relevant learning outcomes must be well defined in cognitive and non-cognitive domains, and continually assessed as an integral part of the teaching and learning process. Quality education includes the development of those skills, values, attitudes and knowledge that enable citizens to lead healthy and fulfilled lives, make informed decisions and respond to local and global challenges."[2]

> This policy brief, which focuses on a set of skills that can and should be taught in schools, is based on a body of scholarly literature that tends to use the term "noncognitive skills" over others. James Heckman, a prominent, Nobel Prize–winning economist, has dubbed these skills "dark matter" in recognition of their varied nature and the challenge of accurately labeling them. Various fields and experts call them social and emotional skills, behavioral skills, inter- and intra-personal skills, and life skills, among other terms, but this brief does not aim to settle this issue. We therefore use noncognitive throughout in many places, as well as social and emotional skills and other terms.

This brief explains why it is so important that we incorporate these skills into the goals and components of public education, and lays out the steps necessary to make that happen.

Key points include:

- There exist significant associations between noncognitive skills and outcomes such as productivity and collegiality at work, positive health indicators, and civic participation. There is likewise extensive evidence of the connections between noncognitive skills and academic achievement. And beyond their practical import, they are simply positive attributes.
- Research on the development of noncognitive skills suggests these skills are malleable, rather than fixed, and that they are responsive to differences in school quality, children's environment, and various parental investments.

- Since noncognitive skills matter and can be nurtured in schools, developing them should be an explicit goal of public education. In practice, however, mainstream K–12 education policy has not generally prioritized the development of these skills in the classroom, and neither education policies nor the organization of resources tend to be shaped to support or incentivize schools to do so.
- As we seek to better understand how to incorporate noncognitive skills into policy and practice, pilot examples provide models from which to learn and adapt. These examples can help inform the research and policy initiatives, and the thinking about school design and culture, needed to make these skills a core component of education:
    - **Better defining and measuring these skills:** Integrating social emotional skills into the education policy agenda requires, first, the identification of a satisfactory and concrete list of these skills, and systems or scales to measure them. Measurement and methodological research are required to validate a complete and accurate list of education-related noncognitive skills, and to provide metrics that are both reliable and usable.
    - **Broadening the curriculum:** The identification of those noncognitive skills that play important roles in education should prompt a discussion of how to design broader curricula and specific instructional strategies to promote those skills, including promoting school and classroom environments conducive to them.
    - **Enhancing teacher preparation, training, and support:** Fully integrating noncognitive skills into the curriculum also requires that teachers' preparation and professional support are geared toward the development of these skills in their students, as well as an emphasis on the importance of relationships.
    - **Revisiting school disciplinary policies:** Many current disciplinary measures used to combat student misbehavior are at odds with the goal of nurturing noncognitive skills. Disciplinary measures should be rooted in schools' efforts to support and promote better behavior, and in the prevention of misbehavior, rather than simply or mainly in punishing wrongdoing.
    - **Broadening assessment and accountability:** Accountability practices and policies must be broadened to make explicit the expectation that schools and teachers contribute to the development of noncognitive skills and to make the development of the whole child central to the mission of education policy. Specifically, incentives promoted by an enhanced accountability system should be aligned with broadening the curriculum, cultivating the proper climate within the school, promoting teachers' investment in strong relationships with their students, and ensuring teaching time for strategies that are conducive to the development of both noncognitive and cognitive skills.

Noncognitive skills are important drivers of cognitive skills and of broader school and life outcomes

Noncognitive skills—the generic term that represents "patterns of thought, feelings and behavior that may develop throughout our lives (i.e., are not fixed traits of personality)"[3]—allow us to succeed in our public lives, workplaces, homes, and other societal contexts and to contribute meaningfully to society. A solid body of research demonstrates the significant associations between noncognitive skills and other adult outcomes, including productivity and collegiality at work, positive health indicators, and civic participation. There is likewise extensive evidence of the connections between noncognitive skills and academic achievement. And beyond their practical import, they are simply positive attributes. Here we briefly summarize what is known regarding the influence of noncognitive skills on cognitive skills and other school and life outcomes.

A study of over 200 socio-emotional interventions in the United States targeting children from kindergarten through high school (ages 5–18) concluded that participating students exhibited higher academic achievement, with the gain in performance estimated to be equivalent to 11 percentile points.[4] Executive function skills—self-regulation and self-control, which are predictive of better behavior in the classroom—are correlated with improvements in grades and other measures of academic performance.[5] And a construct of social competence in kindergarten—the ability to complete tasks and manage responsibilities, and effective handling of social and emotional experiences—is associated with a range of key outcomes for children and young adults across multiple domains of education, including reduced years of special education, fewer repeated grades, and higher rates of on-time high school graduation and college completion.[6]

As noted above, however, the importance of noncognitive skills extends far beyond academic outcomes. Employers have long reported in surveys that they highly value a range of noncognitive skills in their search for good employees. Indeed, they place skills such as verbal communication, teamwork/collaboration, professionalism/work ethic, and critical thinking/problem-solving at the top of their list of traits that are critical for workplace success.[7] Positive relationships have been found between socio-emotional skills and social competence and employment outcomes (such as having stable employment or being employed full time), while weak noncognitive skills are associated with a variety of negative life outcomes. These include reliance on public assistance (e.g., being on a waiting list for public housing, receiving public assistance, or receiving unemployment compensation), criminal activity (e.g., being arrested for a severe offense, ever having been arrested, ever having made a court appearance, ever having had police contact, ever having stayed in a detention facility), substance use (e.g., alcohol dependence, drug dependence, having smoked regularly in the past month, number of days of binge drinking in the past month, number of days of marijuana use in the past month), and poor mental health (e.g., externalizing problems, internalizing problems, number of years on medications).[8]

Finally, noncognitive skills are centrally important to a person's ability to live a full life, including active participation as a family member, neighbor, and engaged democratic citizen. Noncognitive skills increase trust and the probability of voting and decrease the probability of being divorced.[9] They also correlate with improved life satisfaction.[10] Being able to get along with others; to share, consider, and respect alternative points of view; and to prioritize broad societal goals are all related to noncognitive skills that are developed early in life and that distinguish strong parents, good neighbors, and engaged citizens from their less constructive and less successful peers.

Noncognitive skills are the result of multiple factors that emerge at various points in children's development

Research on the factors driving the development of social and emotional skills supports the premise that these skills are malleable, rather than fixed, and that they are responsive to differences in school quality, children's environment, and various parental investments.[11] There is less agreement, though, on whether they are more or less malleable than cognitive skills, on whether all noncognitive skills can be developed in school, and on the degree to which their capacity for development is constant across ages and grades.[12]

What is known for certain is that these skills have their origins in the very earliest years of children's lives. Brain research conducted in recent decades increasingly affirms that the foundations for both types of skills—cognitive and noncognitive—are established starting at birth, and even before. One in particular, the ability to form strong and trusting relationships with others, has been extensively studied. As neurobiologist Jack Shonkoff and his colleagues at the Harvard Center on the Developing Child document, the "serve-and-return" interactions between infants and their parents and other caretakers play key roles in the development of this trait; when babies cry and mothers pick them up, or when they smile and their fathers smile back and reward them with a happy noise or play time, these interactions begin to lay the foundations for trust, confidence, and other relationship-building skills.[13]

The years leading up to school entry and the first years of formal schooling are, thus, key windows of opportunity for the development of noncognitive skills. Unfortunately, we see the same divisions with respect to these opportunities as we do with cognitive skill development: Children who are disadvantaged by poverty and other factors develop noncognitive skills more slowly, and are less likely to have access to the supports to boost these skills. They thus begin school behind, putting themselves, their teachers, and their classmates at a disadvantage. Indeed, a recent study documents how large these early gaps are by the time of school entry.[14] While income-based gaps in reading and math are much larger than those in skills such as self-control and approaches to learning, as assessed by teachers (a full standard deviation versus about half of a standard deviation,

respectively), both gaps are strongly statistically significant and of real practical importance.

With respect to family and school determinants of noncognitive skills, a recent study using OECD's 2012 Program for International Student Assessment (PISA) data for Mexico finds that families' valuing of attitudes and behavior toward education are predictive of noncognitive performance.[15] Specifically, students whose parents are highly satisfied with the school environment and how discipline is handled, who believe that the school is educating their children well, who have high expectations for their children's educational attainment, and who provide those children with the educational resources they need, tend to have higher noncognitive skills. (The noncognitive factors included in the PISA 2012 data are perseverance, sense of belonging to school, engagement with teachers, and attitude toward school—particularly a belief in the long-term value of school and a belief that effort will be rewarded.) Importantly, this research also shows that the associations between family and school characteristics and noncognitive skills differ depending on which factors are assessed. For example, a family's wealth was statistically associated with all the noncognitive factors explored in the analysis aside from students' sense of belonging to the school, and the proportion of qualified teachers was not statistically associated with perseverance or engagement with teachers, though it was associated with sense of belonging and belief in the long-term value of school. Thus, when exploring strategies that can nurture noncognitive skills, it is important to keep in mind that there is likely not a single unique strategy, but rather a variety or combination of strategies that can enhance children's multiple cognitive capacities and behavioral characteristics. Moreover, this is true not only across skills, but also across ages and countries.[16]

Other research explains how K–12 schools can nurture the development of noncognitive skills, just as they advance children's reading and math skills. And while this research is less extensive, the body of literature has increased significantly in recent years. Indeed, four leading scholars of social and emotional learning collaborated in 2015 to bring together some of the most important work in this field with the goal of better incorporating noncognitive skills into education policy.[17] The resulting publication provides examples from various countries, states, school districts, and institutions, including the Collaborative for Academic, Social, and Emotional Learning (CASEL) and the Developmental Studies Center, among others, of how particular curricula, teaching methods, legislation, and school and teacher characteristics influence various noncognitive skills.[18] And a recent paper produced for Turnaround for Children sets forth a framework for how the development of a broad range of social and emotional skills can be a core part of helping struggling schools to improve.[19] The author conceives of these skills as scaffolded layers, with such foundational skills as self-regulation and stress management critical to enabling children to develop strong executive functions, then self-efficacy, and, ultimately, such top-level skills as agency, resilience, curiosity, and civic identity.

Moreover, although various skills are not often studied in an integrated way, the processes of socio-emotional development and cognitive development are intertwined.[20] An attempt to model this interrelationship finds that their interdependence is important across children's entire schooling career.[21] And while noncognitive skills' importance as a

determinant of cognitive performance increases very little over the earlier grade levels, it steadily increases across the later grades. In comparison, cognitive skills' importance as a determinant of noncognitive skills significantly increases through the earlier grade levels (kindergarten through 3rd), and then decreases in later grade levels (5th through 8th). Although the author acknowledges the sensitivity of these patterns to the skills used to construct the indices, the strong simultaneous relationships point to the difficulty of trying to boost cognitive skills without actively nurturing noncognitive ones. Indeed, evidence increasingly suggests that social and emotional skills are foundational to the development of others. So increased attention to noncognitive skills in education policy would improve all children's opportunities and pathways to development.

Though noncognitive skills can be nurtured in schools, they remain a low education policy priority

While there are still many unknowns regarding noncognitive skills' impacts and how to best nurture them, what is known has significant implications for education policy. First and foremost, since noncognitive skills matter and can be nurtured in schools, developing them (or, at the very least, establishing structures that are conducive to their development) should be an explicit goal of public education. In practice, however, mainstream K–12 education policy has not generally prioritized the development of these skills in the classroom, and education policies are rarely shaped to support or incentivize schools to do so.[22] As discussed in more detail below, in the United States, the transition from No Child Left Behind (NCLB) to the Every Student Succeeds Act (ESSA) in 2015 represents a definite shift to recognize the importance of the development of noncognitive skills.[23] Still, by far the greatest emphasis in policy—at the federal, state, and local levels—remains on traditional cognitive skills, with little alignment across the two areas.

This disconnect is attributable to several factors. First, some education policies established in recent decades have led schools to narrow their curriculum to focus on a small set of cognitive skills and to employ test preparation as a major instructional strategy (this emphasis on test preparation is sometimes called the "cognitive hypothesis").[24] This same focus has meant that key factors in nurturing noncognitive skills, such as strong teacher–student relationships, and school and classroom environment, has been relegated to lower priorities.[25] A second factor is the relative difficulty of measuring children's abilities in noncognitive areas. We have long had instruments to assess skills in reading, math, and other cognitive skills such as knowledge of science and history. While they are far from perfect, they have provided teachers, parents, and policymakers with a decent sense of what students know and have supported substantial research on how these skills are produced. In contrast, the accurate assessment of noncognitive skills is challenged not only by a dearth of reliable tests or other instruments, but, more fundamentally, by our failure to agree on valid, accepted framework, definitions, and metrics for them. Attempting to create such a list and set of definitions requires, among other things, that we specify as a society for what purposes and for whom the skills listed

matter.[26] Skills and corresponding measures "must [also] be culturally, educationally, age, and gender appropriate, and be sensitive enough to measure changes among program participants across regions and sectors of the world."[27]

The difficulties associated with making these decisions are illustrated, for example, by the need to rely on self-reporting by adults or by children themselves on those children's noncognitive skills. Not surprisingly, those assessments can thus vary substantially; one recent study reports that parents and teachers provide different assessments of similar skills—including self-control, persistence, and the ability to relate well to others—among the same children.[28] Strong disagreement among leading scholars as to the wisdom of using self-reported ratings of four key social-emotional skills by students in nine California districts as part of school performance indices reflects, among other things, similar concerns about their reliability and potential to be gamed.[29] Moreover, as asserted in a recent paper, we are still in the very early stages of defining these skills and determining which can and should be actively nurtured in schools.[30]

Here we briefly set forth some policy changes that will help make noncognitive skills a core component of children's education.

Making noncognitive skills a core component of education will require specific policy changes

While a broad range of social and emotional skills can be intentionally supported and developed, some are likely better suited to being nurtured in school settings, others at home, and yet others in multiple settings. It is thus important that researchers and practitioners work together to better identify these skills and to distinguish which belong in which of those categories. Indeed, one recent paper emphasizes the need for a distinct list of those that are best developed in schools and that should, thus, be higher priorities for education policies.[31] The suggested list, called the "education policy list of noncognitive skills," was intended to jumpstart the needed conversation about how to define and distinguish the various skills. The list includes critical thinking skills, problem solving skills, emotional health, work ethic, community responsibility, social skills (closeness, affection and open communication with both peers and teachers), self-control, self-regulation, persistence, academic confidence, teamwork, organizational skills, creativity, and communication skills.[32]

Despite the numerous challenges noted above, social and emotional skills are beginning to occupy a more central role in discussions about education. This prompts the need for thoughtful and concerted attention from researchers, policymakers, and practitioners regarding education policy components that must be considered in order to effect changes in how noncognitive skills are nurtured and advanced in schools, and to make the development of the whole child central to the mission of education policy.[33] Some such attention is beginning to be evident. For example, the new requirement under ESSA

that states report at least one new measure of student progress, beyond the traditional academic ones, is prompting states, districts, and schools to engage in discussions about which ones to use and how to measure and report them. In the best cases, it has sparked conversations about schools' role in ensuring the full development of children. It is also driving concerns among social-emotional learning (SEL) experts about the potential to settle too quickly on poor constructs and/or to use the data that are collected for counterproductive purposes.

Targeted research can help us take several key steps to increase schools' capacity to nurture and support the skills relevant to them. These include accurately measuring and assessing these skills as part of testing; integrating their development within curricula across all subjects; better training and supporting teachers to nurture them in their everyday instruction and classroom activities, including through a focus on building strong relationships; and reshaping our accountability framework at each level of government.[34]

Better defining and measuring skills

Integrating social and emotional skills into the education policy agenda requires, first, the identification of a satisfactory and concrete list of these skills, and developing systems and scales to measure them. Measurement and methodological research are required to validate a complete and accurate list of education-related noncognitive skills, and to provide metrics that are both reliable and usable. Understanding and improving student–teacher relationships is core to getting this work right. Indeed, one example to build from is Robert Pianta's Classroom Assessment Scoring System (CLASS) for classroom protocols, which documents the interactions between early childhood teachers and students in domains like behavior management and instructional dialogue, and accounts for other classroom features and environmental factors.[35] A second is the Educational Testing Service's framework for whole-person assessment, which integrates noncognitive dimensions.[36] As some researchers have recently noted, documenting, sharing, and adapting the effective practices employed by schools and districts doing pioneering work in this area will also help improve how we define and, especially, measure these skills.[37]

Broadening the curriculum

The identification of those noncognitive skills that play important roles in education should prompt a discussion of how to design broader curricula as well as specific instructional strategies to promote those skills. Some noncognitive skills can be taught both directly and indirectly, i.e., they may be learned through instruction but might also be acquired in the process of studying other specific academic subjects.[38] The broader curriculum that we develop should thus include ways to both directly promote specific social and behavioral skills and to develop them indirectly, by leveraging other kinds of skills.[39] For example, having students work on group projects has been found to effectively nurture such skills as collaboration, critical thinking, and communication.[40]

Enhancing teacher preparation, training, and support

Fully integrating noncognitive skills into the curriculum also requires that teachers' preparation and professional support are geared toward the development of these skills in their students and the nurturing of strong, understanding relationships with those students. Through the provision of pedagogic, leadership, and organizational skills training, this professional development could complement existing training designed to improve teachers' effectiveness as instructors in cognitive areas by incorporating new components that focus explicitly on the child's full development, and that provide teachers with awareness of the principles of child development, as well as the tools to apply them.[41]

Education policy thus must be enhanced to ensure that teachers are appropriately supported and trained, and that they receive instruction in both the subject matter and in learning how to teach it. For example, in their research on student-centered learning approaches, Diane Friedlaender and her colleagues list a number of supports for teachers, from higher-quality preparation and induction to increased time for planning and collaboration.[42] One interesting example in practice is Construye-T, a Mexican program that provides secondary school teachers and principals nationwide with professional development that trains them to nurture students' "integral development" and socioemotional skills.[43] School leaders are also key to this. In Austin, one of the strongest of the eight districts that are the focus of a CASEL-led initiative to embed SEL in every aspect of school policy and practice, those assessing the impacts of SEL implementation found that the principal's level of commitment to social and emotional learning as core to the school's operations was a strong determinant of the degree to which SEL was fully implemented, and to which teachers received proper training and support.

Revisiting school disciplinary policies

Many current disciplinary measures used to combat student misbehavior are at odds with the goal of nurturing noncognitive skills. Harsh measures, in particular in-school and out-of-school suspensions and expulsions, referrals to law enforcement, and even arrests (often called, collectively, zero-tolerance policies), are increasingly used to punish low-level infractions.[44] Such responses to uncooperative, disorderly, or disruptive behaviors not only are unlikely to prevent such behaviors in the future, but have been found to be harmful to students' development. They also correlate negatively with school achievement and school climate, and positively with dropouts.[45]

Disciplinary measures should be rooted in schools' ability to support and promote better behavior, and to prevent misbehavior, rather than simply in punishing wrongdoing. Indeed, evidence points to the increased efficacy of shifting from zero-tolerance to preventive and supportive policies—"restorative" approaches such as peer mediation, group responsibility, and counseling that support and promote safe learning environments.[46]

Broadening assessment and accountability

If individuals' full development is the ultimate goal of education, assessments and accountability should be tools that reflect learning and development and inform teaching. In light of the critical importance of noncognitive skills, exploring some of the challenges associated with the assessment of cognitive skills provides an opportunity to improve current accountability systems by rethinking how we conceive of and use these systems, and by building comprehensive assessment and accountability systems that use both quantitative and qualitative information to improve teaching and learning and, ultimately, student performance.

Accountability practices and policies must be broadened to make explicit the expectation that schools and teachers contribute to the development of noncognitive skills and to make the development of the whole child central to the mission of education policy. Specifically, incentives promoted by an enhanced accountability system should be aligned with broadening the curriculum, cultivating the proper climate within the school, promoting teachers' investment in strong relationships with their students, and ensuring teaching time for strategies that are conducive to the development of both noncognitive and cognitive skills.

Designing such a system requires ensuring that new policies avoid replicating the mistakes of current accountability systems focused on cognitive skills, which have turned out to be overly rigid and narrow.[47] As Linda Darling-Hammond and her colleagues emphasize in their recent report on developing a new accountability paradigm, given that actors in many areas of policy and at all levels of government affect children's development, it is also critical that accountability be reciprocal: "Each level of the system – from federal and state governments to districts and schools – should be accountable for the contributions it must make to produce high-quality learning opportunities for each and every child."[48] Indeed, such a broader education policy agenda could reverse some of the dysfunctional aspects of current systems, leading to fairer and more realistic education policies generally.

Build on growing momentum to advance policies to support noncognitive skills

Despite the low priority assigned to noncognitive skills in U.S. education policies generally, there is significant momentum growing at the local, state, and federal levels to change that. This energy is reflected in multiple examples that demonstrate the potential to implement and scale up practices to nurture noncognitive skills in the education system. And these examples can help guide and disseminate strategies that would more fully educate our children.

In exploring a few of these district-level initiatives, it is important to acknowledge the pioneering efforts that not only contributed to these efforts, but that have helped advance state and federal legislation geared toward supporting the development of noncognitive skills. Several national organizations in the United States, including ASCD and the Collaborative for Academic, Social, and Emotional Learning (CASEL), have long supported work to nurture noncognitive skills. More recently, organizations like the Learning Policy Institute and the Aspen Institute's National Commission on Social, Emotional, and Academic Development have emerged to enhance that work.

Due in part to these efforts, a growing minority of school districts in the United States have already made noncognitive skills a goal and a core component of their education systems. These districts that have taken a holistic or "whole-child" approach to education in structuring their schools, from preschool through high school, to support these traits. These districts' focus on a broader set of outcome goals and grounding in relationships with families and partnerships with many other institutions has laid a strong foundation for nurturing SEL. These districts have embedded support for students' physical and mental health care in school policies and strategies. Organized sports, music and arts, yoga, and mediation, which many scholars tie to the development of social and emotional skills, are built in as core parts of the school day and year. Teacher training includes support to build the development of noncognitive skills into daily classroom routines and to gauge the need for targeted support to enhance these skills' growth. These districts often assess schools' progress based on a broader set of metrics, and they use the data gathered to target supports to students and improve practices.

Examples include the Children's Aid Society in New York City, and Vancouver, Washington, both of which have been cultivating a full-service community schools strategy for a decade or more, and which have won national-level recognition for that work to make wrap-around supports for students and families and a focus on social and emotional learning core components of their education systems. Another, City Connects in Boston, which does not identify primarily as a community schools district but collaborates with the Coalition for Community Schools, infuses art, music, and other physical, social, and behavioral health promotion into daily activities in order to make schools' development of these skills central.[49] Eight urban districts have been the focus of the aforementioned CASEL-led initiative to embed SEL in every aspect of school policy and practice. Austin USD, one of those districts, has become a pioneer in making SEL core to academic standards, curriculum, teacher training and support, and even metrics for assessing student progress, and has seen widespread benefits for students as a result.[50] And dozens of communities across the South and Midwest that are working with the Bright Futures USA initiative seek to address a broad range of children's needs and strengthen their skills—both traditional academic and other—by growing community leadership from the ground up and incorporating service learning into the curriculum.

Larger-scale, systemic efforts demonstrate both the promise and limitations of embedding SEL in school policy and practice. The California Office to Reform Education (CORE), a collaborative of nine of the state's districts that received a waiver from requirements under No Child Left Behind to design new school accountability systems, has been making strides toward embedding SEL as a key component of their schools' policies and

practices. And research on CORE districts has found strong relationships between skills like perseverance, confidence, and ability to collaborate, as self-reported by students, and those students' academic achievement.[51] A second large-scale effort, by charter schools that are part of the Knowledge Is Power Program (KIPP) network, however, has shown less promising results: Of the character skills advanced, only student self-reported collaboration with other students improved in a rigorous 2015 study by Mathematica.[52] Both point, in particular, to the need to further explore how self-reported measures compare with others, and to examine potential biases or other problems with them.

A handful of pioneering states—Illinois, New York, and Ohio among them—have taken steps to embed noncognitive skills in schools through state-level legislative measures.[53] And the new federal legislation discussed above makes schools' development of social and behavioral skills a national issue. Finally, countries as diverse as the United Kingdom, Finland, Mexico, and Japan have undertaken actions—ranging from pilot programs to large-scale efforts—to build a framework for students' full development.

These examples, which are scattered but increasing in number, can serve as models not only of how noncognitive skills can be better nurtured in schools, but of ways to build systems and structures to develop them beyond schools. While most are too preliminary at this stage to surface best practices, exploration of their progress as they mature can, along with rigorous research, help identify those.[54] These examples also remind us that education should be defined much more broadly than it often is; that public education has larger civic and societal ambitions beyond preparing children to succeed in college and careers, important as those goals are; and that our schools today are tasked with preparing children for a more complex world than ever before. In looking toward that future, we should seize this opportunity to ensure that noncognitive skills finally take their rightful place in education policy and practice.

— This policy brief extensively builds on a more detailed and comprehensive research paper published by the Economic Policy Institute (see The Need to Incorporate Noncognitive Skills in the Education Policy Agenda). The excellent guidance provided by Jane Quinn in that paper is greatly appreciated in this version. The authors are also grateful to Brooke Stafford Brizard, Shirley Brandman, and Blanca Heredia for their helpful advice generally and specific pointers throughout. They also thank Michael McCarthy for his edits.

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17. J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, and T. P. Gullotta (eds.), *Handbook of Social and Emotional Learning: Research and Practice* (New York: Guilford Publications, 2015).

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19. K. Brooke Stafford-Brizard, *Building Blocks for Learning: A Framework for Comprehensive Student Development,* Turnaround for Children, 2015.

20. H. M. Levin, "A New Model of School Effectiveness," in *Do Teachers Make a Difference?,* U.S. Department of Health, Education and Welfare, Office of Education, 55–78, 1970; Cunha, Flavio, James J. Heckman, L. Lochner, and D. V. Masterov, "Interpreting the Evidence on Life Cycle Skill Formation," *Handbook of the Economics of Education* 1 (2006), 697–812; Flavio Cunha, James J. Heckman, and S. M. Schennach, "Estimating the Technology of Cognitive and Noncognitive Skill Formation," *Econometrica* 78, no. 3 (2010), 883–931; S. Olson, *From Neurons to Neighborhoods: An Update: Workshop Summary* (Washington, D.C.: National Academies Press, 2012); Timothy P. Shriver, and Roger P. Weissberg, "No Emotion Left Behind," *New York Times,* August 16, 2005; K. Brooke Stafford-Brizard, *Building Blocks for Learning: A Framework for Comprehensive Student Development,* Turnaround for Children, 2015.

21. Emma García, *What We Learn in School: Cognitive and Non-Cognitive Skills in the Educational Production Function*, Columbia University, 2013.

22. Emma García, *The Need to Address Noncognitive Skills in the Education Policy Agenda,* Economic Policy Institute, Briefing Paper No. 386, 2014.

23. For information on the new provisions in ESSA that support social and emotional learning, see Collaborative for Academic, Social, and Emotional Learning (CASEL), "Federal Legislation to Promote Social and Emotional Learning," 2016. The text of the act can be viewed at https://www.congress.gov/bill/114th-congress/senate-bill/1177/text.

24. See Diane Ravitch, *The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education* (New York: Basic Books, 2011); Richard Rothstein, Rebecca Jacobsen, and Tamara Wilder, *Grading Education: Getting Accountability Right* (Economic Policy Institute and Teachers College Press, 2008); and Paul Tough, *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character* (New York: Mariner Books, 2012).

25. Researchers increasingly focus on these factors in analyzing drivers of achievement gaps among white and male versus minority and female students, and thus urge policymakers and practitioners to see those students' different perspectives on what goes on in class as a key step to narrowing the gaps. See David Yeager, Gregory Walton, and Geoffrey L. Cohen, "Addressing Achievement Gaps with Psychological Interventions," *Kappan,* February 2013.

26. Angela L. Duckworth and David Scott Yeager, "Measurement Matters: Assessing Personal Qualities Other Than Cognitive Ability for Educational Purposes," *Educational Researcher* 44, no. 4 (2015), 237–251.

27. L. H. Lippman, R. Ryberg, R. Carney, and K. A. Moore, *Key "Soft Skills" that Foster Youth Workforce Success: Toward a Consensus Across Fields,* Child Trends, FHI360, and USAID, 2015.

28. Emma García and Elaine Weiss, *Early Education Gaps by Social Class and Race Start U.S. Children Out on Unequal Footing: A Summary of the Major Findings in Inequalities at the Starting Gate,* Economic Policy Institute report, 2015.

29. Harvard University professor Martin West, who evaluated the CORE districts' research on the links between students' reports of social and emotional skills and academic achievement, is sufficiently pleased with the results to support using them this way despite potential pitfalls, while psychology professors Angela Duckworth of the University of Pennsylvania and David Yaeger of the University of Texas strongly oppose this use. See John Fensterwald, "Rating Schools by Students' Social-Emotional Skills Worth Trying, Evaluator Says," *EdSource,* March 17, 2016.

30. In a March 2016 article on the topic, Whitehurst warns that, while so-called soft skills are clearly far too valuable to be ignored, the paucity of solid knowledge regarding how they are defined,

nurtured, and measured poses serious "danger signs" regarding the potential to rush headlong to implement untested curriculum and assessments. He urges incremental progress that builds on existing school policies and practices. See Grover J. Whitehurst, "Hard Thinking on Soft Skills," *Evidence Speaks Reports*, vol. 1, no. 14, Brookings Institution, March 24, 2016.

31. Emma García, *The Need to Address Noncognitive Skills in the Education Policy Agenda,* Economic Policy Institute, Briefing Paper No. 386, 2014.

32. It is not clear that all of these belong in the noncognitive camp; some might be skills that fall between cognitive and noncognitive extremes. Also, some skills may be more static or fixed, while some may be more adaptable and learnable, depending on each individual. Additionally, some degree of overlap can be detected among some of the skills included in the list.

33. James P. Comer, "Child and Adolescent Development: The Critical Missing Focus in School Reform," *Phi Delta Kappan* 86, no. 10 (2005), 757–763.

34. It is also critical to ensure that schools are appropriately staffed with experts on mental and emotional health; i.e., teachers cannot and should not supplant the role of counselors or psychologists (or others). As set out above, education is not confined to what happens within school walls, nor can the nurturing of cognitive or noncognitive skills be the sole responsibility of teachers. It takes the whole school, family, and community to do so effectively.

35. Karen M. La Paro, and Robert C. Pianta, *CLASS: Classroom Assessment Scoring System* (Charlottesville: University of Virginia, 2003); Karen M. La Paro, Robert C. Pianta, and Megan Stuhlman, "The Classroom Assessment Scoring System: Findings from the Prekindergarten Year," *The Elementary School Journal* 104, no. 5 (2004), 409–426. The CLASS system has grown from a child development tool that assesses interactions between early childhood teachers and students and offers resources to strengthen them into a K-12 tool that is designed to capture teacher behaviors linked to student gains. As such, states looking for valid metrics under the new ESSA requirement may find CLASS useful. http://curry.virginia.edu/about/directory/robert-c.-pianta/measures

36. Patrick C. Kyllonen, "The Case for Noncognitive Assessments," *R&D Connections,* 2005.

37. For example, see BBA's case studies of communities focused on social and emotional learning at http://www.boldapproach.org/case-studies/.

38. See Richard E. Nisbett, *Intelligence and How to Get It: Why Schools and Cultures Count* (New York: W.W. Norton & Company, 2009); C. A. Kusche and M. T. Greenberg, *The PATHS (Promoting Alternative Thinking Strategies) Curriculum* (South Deerfield, Mass.: Channing-Bete, 1994).

39. S. Olson, *From Neurons to Neighborhoods: An Update: Workshop Summary* (Washington, D.C.: National Academies Press, 2012).

40. Diane Friedlaender, Dion Burns, Heather Lewis-Charp, Channa Mae Cook-Harvey, and Linda Darling-Hammond, *Student-Centered Schools: Closing the Opportunity Gap,* Stanford Center for Opportunity Policy in Education, 2014.

41. James P. Comer, "Child and Adolescent Development: The Critical Missing Focus in School Reform," *Phi Delta Kappan* 86, no. 10 (2005), 757–763.

42. Diane Friedlaender, Dion Burns, Heather Lewis-Charp, Channa Mae Cook-Harvey, and Linda Darling-Hammond, *Student-Centered Schools: Closing the Opportunity Gap,* Stanford Center for Opportunity Policy in Education, 2014.

43. Skills targeted by the program include self-regulation, interpersonal relationships, or perseverance.

44. Pedro Noguera, "Texas-Style Discipline Puts Suspension First," *Huffington Post,* August 5, 2011. These practices and policies vary widely from state to state and, within states, across districts. As such, the first step is to examine current policies and to determine how changes to state and district laws factor in. For example, only 3 percent of the disciplinary actions for students in middle and high schools in Texas were for conduct for which state law mandates suspensions and expulsions, and the remainder of disciplinary actions were made at the discretion of school officials (primarily in response to violations of local schools' conduct codes). See Antonio Fabelo, *Breaking Schools' Rules: A Statewide Study of How School Discipline Relates to Students' Success and Juvenile Justice Involvement*, Council of State Governments Justice Center, 2011.

45. Edmund Emmer, Edward Sabornie, Carolyn M. Evertson, and Carol S. Weinstein, *Handbook of Classroom Management: Research, Practice, and Contemporary Issues* (London: Routledge, 2013).

46. Christopher Boccanfuso and Megan Kuhfeld, *Multiple Responses, Promising Results: Evidence-Based, Nonpunitive Alternatives to Zero Tolerance,* Child Trends, 2011; Russell Skiba, "Zero Tolerance and Alternative Discipline Strategies," *National Association of School Psychologists Communique* 39, no. 1 (2010); Russell Skiba and K. Knesting, "Zero Tolerance, Zero Evidence: An Analysis of School Disciplinary Practice," *New Directions for Youth Development* 92 (2002), 17–43.

47. Diane Ravitch, *Reign of Error: The Hoax of the Privatization Movement and the Danger to America's Public Schools* (New York: Random House, 2013).

48. Linda Darling-Hammond, Gene Wilhoit, and Linda Pittenger, "Accountability for College and Career Readiness: Developing a New Paradigm," *Education Policy Analysis Archives* 22, no. 86 (2014), 1.

49. Case studies of these three districts can be found at http://www.boldapproach.org/case-studies/.

50. The Austin Independent School District has been conducting rigorous evaluations of the impacts of intensive SEL focus on a broad set of outcomes. The most recent report on these findings, by Lindsey M. Lamb, is from the 2013–2014 school year.

51. M. R. West, E. Scherer, and A. Dow, Measuring Social-Emotional Skills at Scale: Evidence from California's CORE Districts, paper presented at the American Education Finance and Policy Annual Conference, 2016.

52. Grover J. Whitehurst, "Hard Thinking on Soft Skills," *Evidence Speaks Reports*, vol. 1, no. 14, Brookings Institution, March 24, 2016, p. 5.

53. See standards at the K–12 level in other states, and some examples corresponding to federal, and international initiatives, in chapters 35–37 of J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, and T. P. Gullotta (eds.), *Handbook of Social and Emotional Learning: Research and Practice* (New York: Guilford Publications, 2015).

54. In addition to looking at these varied examples of how schools and education systems can better integrate SEL into their policies and practices, we can learn from other education arenas. In particular, the early childhood education field has much to offer in terms of structures and systems. Its inherent whole-child perspective, and foundational understanding that multiple domains of child development grow in closely intertwined ways, offer lessons across the range of policy areas for those shaping K–12 policies and practices.