

Improving Social Emotional Skills in Childhood Enhances Long-Term Well-Being and Economic Outcomes



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This issue brief, created by The Pennsylvania State University with support from the Robert Wood Johnson Foundation, is one of a series of briefs that addresses the need for research, practice and policy on social and emotional learning (SEL). SEL is defined as the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

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Executive Summary

Social emotional (SE) skills are multifaceted and vital for human development. They include interpersonal skills like communicating with others, building relationships, and working well together. They also include intrapersonal skills such as self-control, self-awareness, self-motivation, responsibility, and creativity. These skills can be fostered through modeling and via formal and informal instruction at home or in school.

Learned early, SE skills can help children overcome challenges and avoid unhealthy behavior, improving a variety of outcomes into adulthood. Studies show that good SE skills can lead to better education, employment, and physical and mental health, and to fewer problems with substance abuse, antisocial behavior, or relationships. The benefits SE skills bring to individuals ultimately can have significant economic impacts too, for both individuals and society overall.

SE skills help children successfully navigate the learning environment, making it more likely they will graduate from both high school and college. With a higher education, people are more likely to get jobs, and jobs with higher salaries, benefitting individuals and society. Good SE skills also help people lead healthy lives and avoid risky behavior that could contribute to physical and mental health problems, substance abuse, delinquency, and crime. SE skills are vital throughout the lifespan and efforts to enhance skills in children can curtail many social problems before they develop.

There are several evidence-based programs proven to enhance SE skills in children, and there is a growing base of research examining the value of implementing these interventions. A recent study on multiple SE skill-building programs found over an \$11 return on investment for each dollar invested. Starting earlier with SE development, and making SE programs more available in more high-risk or disadvantaged communities, could result in an even higher return on investment.

The benefits of investing in social emotional health are increasingly evident. Parents, educators, business leaders, and federal, state, and local policymakers are realizing the importance of improving SE skills in children through programs and education. More research is needed to broaden our understanding of the impact of SE skills on long-term economic outcomes, but investing in effective SE programs for all children now can increase the number of productive, well-adjusted adults and yield tremendous economic benefits in the future.

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Introduction

Substantial recent attention has focused on how social emotional (SE) skills in childhood influence our long-term well-being. These skills encompass key interpersonal (e.g., social responsibility, relationship skills) and intrapersonal (e.g., emotions management, self-regulation) competencies that are building blocks for healthy human development. While the intrinsic value of SE skills is broadly recognized, there is also growing evidence of their importance to success across the lifespan. Experts in education, psychology, public health, and economics focus on the value of these skills—sometimes referred to as “non-cognitive,” “character,” or “soft skills”—and such research can be instrumental in shaping policy and programming decisions. These studies have shown that good SE skills can lead to improved outcomes in education and employment as well as physical and mental health, and also to lower chances of substance abuse, antisocial behavior, and relationship problems.¹⁻³

Results from this research have important economic implications for the individual and for society. Improved SE skills lead to greater productivity in school and the workplace that equates to economic benefits to individuals (e.g., greater income) and to society (e.g., higher tax revenue). Conversely, problems with SE skills may translate into increased costs related to education, physical health or mental health services, and crime. As policymakers at all levels are responsible for public budgets, many are considering whether strategic investments in SE skills could translate into economic benefits or savings for individuals and society.

In this brief, we review research demonstrating links between SE skills early in childhood and long-term well-being, especially those links that affect economic outcomes. We consider how SE skills are defined and measured, how they are associated with health and productivity, and the potential for effective social and emotional learning (SEL) programs to improve the well-being of individuals and positively impact economic outcomes. We also discuss current limitations in conducting research in this area, challenges for interpreting current research findings, and opportunities for future work.

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Key Findings

Social emotional skills are multifaceted and vital for human development

Over fifty years ago, a landmark study examined how well young children could delay immediate gratification. This study, led by Walter Mischel, offered children an option to have one marshmallow immediately or wait 15 minutes for two marshmallows. Follow-up studies into adulthood found that the children who were able to wait longer for a larger reward had improved outcomes—including higher SAT scores, greater educational attainment, and better health.⁴ The ability to delay gratification represented one aspect of SE skills, those ‘non-cognitive’ abilities related to self-control or self-regulation.

Many studies since the “marshmallow study” have found similar patterns of long-term results, although often involving different, but related concepts and measures. Collectively, these results represent competencies in children which we define as SE skills. Taken together, these skills help individuals face challenges in their homes, schools and communities effectively. Although there are various classification systems of these skills,⁵⁻⁷ SE skills can be sub-divided broadly into intrapersonal or interpersonal skills, as shown in the sidebar.

SE skills like those shown stem from a combination of nature and nurture, but can be fostered through modeling and via formal and informal instruction at home and in school. Establishing SE skills early can help children build productive relationships and manage and solve problems in or out of school. They can help adolescents avoid temptations to engage in risky behaviors such as substance abuse, delinquent behavior, and crime. Eventually, they can increase the likelihood for success in the workplace. Clearly these skills are important to healthy functioning. What is becoming more and more apparent is their potential influence on, and relevance to, economic outcomes.

Social emotional skills are linked to outcomes with long-term value



With strong social emotional skills, students do better in school.

A substantial body of research has demonstrated the important role of SE skills for school success. Traditionally, cognitive ability and academic learning were assumed to be most fundamental to school

success. This led to a substantial focus on test scores and measures of achievement as the key indicators for progress. However, numerous studies now show the key role of SE skills in school success. This is one factor that has led to the increasing promotion of universal SEL programming.²

SEL is vital for helping children navigate social interactions and their learning environment.³ In preschool and early elementary school years, children with strong SE skills can more effectively manage their emotions, interact socially, build peer relationships, and maintain productive academic behaviors that promotes repeated success in school. In the long term, this translates into an increased likelihood of graduating from both high school and college.

Intrapersonal and Interpersonal Social Emotional Skills



Interpersonal skills

- Social skills (relationship skills, conflict management)
- Communication (persuasiveness)
- Teamwork (working with others, playing by the rules, agreeableness, social influence)



Intrapersonal skills

- Hardworking and dependable (conscientiousness, grit, persistence, attendance, participation)
- Positive self-concept (self-awareness, self-confidence, self-esteem)
- Responsibility (locus of control, accountability)
- Self-control (self-management, self-discipline, self-regulation, emotion management, attention, executive function)
- Higher order thinking skills/decision making (creativity, responsible decision making, problem solving)
- Integrity/ethics (honesty)
- Positive attitude (optimism, engagement)
- Self-motivation (openness to experience, passion, intrinsic motivation)

Note: Adapted from Jones, Karoly, Crowley & Greenberg (2015); Skills defined through framework proposed in Lippman et al. (2015). This model summarizes in two dimensions the five-component competence model created by CASEL (2016).

Many studies have shown the importance of SE skills in school, revealing how they complement cognitive ability. For example:

- A study of children in the UK found significant links between both attention and self-regulation skills measured at school entry and educational attainment in middle childhood.⁸
- A study examining the links between early SE skills and adult outcomes found that a brief teacher report of kindergarten prosocial behavior was significantly related to higher rates of high school and college graduation.¹
- In a study of eighth graders, SE competence reflected through a measure of self-discipline was shown to better predict grades, attendance, and admittance into a competitive high school program than was a measure of IQ.⁹
- A comprehensive review of educational studies found that SE skills were key to school success, and that relying on cognitive ability alone would ignore a key part of the learning process.¹⁰

There is also a potential broader impact on outcomes beyond the individual. Poor SE skills in children can lead to the need for costly resources related to teacher time spent managing behavior problems, special education referral, grade repetition, and even healthcare costs related to behavior problems or emotional concerns. Collectively, better SE skills in individuals lead to better classroom outcomes overall, making for a healthier learning environment (with fewer disruptions to learning) that can also be more efficient in terms of school costs.³



With strong social emotional skills, a student is more likely to graduate from college and get a well-paying job. Strong SE skills impact learning and increases the likelihood for obtaining a college degree which is a substantial economic benefit in the labor market.¹¹ The economic benefits from obtaining a college degree are over \$20,000 per year higher compared to only obtaining a high school diploma.¹² In turn,

a high school diploma translates into an almost \$10,000 benefit per year compared to those who do not complete high school. As SE skills increase employability, fewer unemployed adults reduces the burden from public assistance programs. Thus, in addition to personal or family benefits that occur (e.g., self-fulfillment, mental health, resources for future generations), there can be benefits to the overall economy.

A substantial number of studies have focused on both the link between SE skills and success in the workforce, as well as the value employers place on workers having strong skills. For instance:

- Children demonstrating more prosocial behavior in kindergarten were significantly more likely than those with lower prosocial skills to have a full-time job 20 years later and to be stably employed.¹

The economic benefits from obtaining a college degree are over
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Strong social emotional skills increase the likelihood of obtaining a college degree.

- Research combining evidence from five different longitudinal studies found that prosocial behavior in adolescents was significantly linked with increased future earnings in middle adulthood.¹³
- A broad review of studies of “soft skills” found collective evidence for the influence of various SE skills and workforce success.¹⁴ From this evidence the researchers identified five critical skills that increased likelihood of success in the workplace: social skills, communication, higher-order thinking skills, self-control and positive self-concept.

As with educational outcomes, there are also more global benefits to higher SE skills among workers, where increased efficiencies may be realized from healthy relationships among co-workers.¹⁵ Public systems are also less burdened by greater employability among citizens, with increased tax payments and lower reliance on unemployment and public assistance systems. Improved educational and employment outcomes can also increase health of individuals, thus indirectly lowering healthcare costs for individuals and taxpayers.^{16,17}



Strong social emotional skills support healthy functioning and help people avoid problems.

Those with good SE skills can better manage their own emotions, manage potential conflicts in relationships with others, and in general, have the self-control needed to avoid problems and bad habits. SE skills involve several competencies which are vital throughout life. Most mental health problems first emerge in childhood

and adolescence, so there can be substantial economic consequences if those problems persist into adulthood. Problems that emerge early and cascade into negative spirals will lead to costs related to physical and mental health issues, substance abuse, need for additional school services, and delinquency and crime. Those who struggle with SE skills may fall behind in school, which can have longer-term academic and social implications if not addressed. Certain studies have focused on the long-term links between early SE skills and likelihood of future problems, for instance:

- A long-term study in New Zealand found that children with higher levels of self-control were significantly less likely to have problems in adulthood related to crime, physical health and substance dependence.¹⁸
- Early prosocial behavior in children was linked to significantly lower likelihood for arrests, substance use and reliance on public assistance.¹

The documented links between poor SE skills and future costly outcomes should motivate efforts to curtail problems before they develop, helping children and families directly while also lessening the burden on public costs. We next examine the potential for effective programs to help strengthen and enhance SE skills in children, and the connections such programs have to economic outcomes.

SEL has
benefits
for adults



**Better physical
and mental
health**



**More
employment
opportunities**



**Less likely
to engage in
substance
abuse**



**Fewer
relationship
problems**

Programs that Build SE Skills Can be Good Investments

In the early 1960's, a group of impoverished children in Ypsilanti, Michigan were randomly assigned to a high-quality preschool known as the Perry Preschool program. The program involved 2.5 hour sessions each morning combined with weekly home visits to engage the parents in the educational process. Initial evaluations of this program found that participants did better in school than peers who had not taken part in the program. As participants got older, they also had better outcomes related to crime, employment, earnings, and reliance on public assistance. Those long-term effects were mostly attributed to participants' improvements in social emotional skills.¹⁹ Researchers eventually determined that the program generated an annual return on investment of between 6 and 10 percent, exceeding the average historical return to equity. This was a landmark study from over 50 years ago, and since then there has been much evidence for how programs more directly aimed at improving SE skills eventually lead to economic benefits for individuals and broader society.

More generally, studies have found that SE skills can be improved in a sustained way that translates into greater likelihood for long-term success and avoidance of problems, for instance:

- The Seattle Social Development Project—an intervention to improve SE functioning in elementary school-age children—was found to improve educational, employment, mental and sexual health outcomes 15 years later, in young adulthood.²⁰
- The Fast Track Project, a 10-year intervention for children at great risk for long-term behavior problems, included a strong focus on improving social competencies through services at home and in school. Twenty years after the intervention commenced, these individuals were found to have significantly fewer problems with mental health, substance abuse, crime and risky sexual behavior.²¹
- Programs that are more directly focused on enhancing SEL in young children have been shown to generate a positive return on investment to participants and society. For instance, Promoting Alternative Thinking Strategies (PATHS)—a program delivered in elementary school directed toward SEL instruction delivered to all classroom students²²—has been found to return over \$21 for every dollar invested, based on positive long-term impact on development, measured in future earnings.²³
- Economic studies also have shown the value of effective SEL intervention for older children. For instance, the Life Skills Training program is delivered to middle school students to address risks for substance use in adolescence, with components that teach students self-management skills and social skills related to substance abuse prevention. A recent assessment of this program estimated a return-on-investment of over \$17 per dollar invested.²⁴ These results were based on projected long-term program effects over time, namely increased eventual labor market earnings and reduced health care costs related to smoking.

SEL has
benefits
for society



Lower crime



**Fewer public
assistance
services needed**



**Less risky
behavior and
addiction**



**Higher
employment
resulting in higher
tax revenue**

- A meta-analysis of over 200 programs providing SEL instruction in schools found overall significant improvements in multiple outcomes related to social/emotional skills, attitudes, behavior and academic performance.^{2,22,23}

More evidence is available from research that examines multiple programs focused on building and maintaining SE skills. A recent study of the return on investment from multiple SEL programs found a collective economic benefit of roughly \$11 for each dollar invested.²⁵ Reports on the potential return-on-investment of SEL programs can be found among broader evaluations of economic benefits of interventions for families and children available through the [Washington Institute for Public Policy](#).

The economic return from such programs may be stronger if children are younger when they first receive services. Thus, these types of interventions can be seen as a matter of prevention in many cases, since enhanced SE skills can prevent costly academic and behavioral outcomes from developing. In addition, effectiveness studies of SEL programs make another key point: The link between early SE skills and the long-term outcomes discussed above are likely causal, especially if studies randomly assign individuals to receive SEL programming. The evidence that SEL programs can impact adolescent and adult outcomes has created interest in understanding their potential economic benefits. This interest has led to widespread efforts to monitor program benefits as weighed against the costs to implement them. These efforts will continue and ideally lead to wider implementation of effective programs that can improve social emotional health. Wider implementation could then bring a wider economic benefit to society.

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Although the potential for evidence-based SEL programs to improve economic outcomes is promising, population-level improvement in SE skills will require larger coordinated efforts in communities with sustained programming in order to provide broader impact. Some attention should be directed toward meeting needs of all children, not just those in areas where more funding for programs is available. Unfortunately, investments in SE skills may be less likely in low resource settings that are limited to prioritizing physical health and academic improvement needs first. Paradoxically, implementing effective SEL programs and policies in more high-risk or disadvantaged communities could have the greatest economic payoff by addressing problems before they become entrenched and lead to great costs down the road.



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Future Research Needs

This is an exciting time for policy formulation given the recent findings of the value of investing in social emotional health. There is now great interest among educators, policy experts and the general public on the role SE skills play in shaping the nation's health and well-being. There is increasing interest in integrating SEL curricula into schools, and organizations and governments are promoting evidence-based programs and resources to support SE competence. As identified in this brief and the others in this series, there is sufficient current research to move forward on broader implementation of SEL. However, there are several areas of research that will be needed to make necessary progress to build a broader understanding of the role of SE skills in impacting long-term economic outcomes.

First, research needs to clarify which specific skills are most critical, and how best to measure those skills (see the sidebar on page 4). Specific SE sub-skills may be differentially important for certain situations or risks and affect outcomes differently. For example, skills related to emotion regulation will be more important for avoiding later mental health problems while skills related to self-control or problem-solving or mindset likely may be more important to completing academic tasks in school.²⁶ There is a need to gain consensus on the best ways to characterize various skills in a cross-disciplinary manner,²⁷ as well as how to assess various SE skills with the potential for screening children for SE deficits.

Second, there is a need for carefully designed studies to clarify the causal links between SE skills and long-term outcomes.²⁷ While very informative, current studies are based on data archived for other reasons and thus they did not comprehensively assess SE competencies. Studies are needed that assess a wide array of SE skills and that track key indicators of well-being across development. Some efforts are now underway but will take years before late adolescence and adult outcomes are available.²⁸ In the shorter-term, it will be essential to leverage existing data to provide findings that can inform policy. This should include developing 'shadow prices' for SE skills. Shadow prices would permit cost to be placed on a certain unit of increased SE functioning. Examples of shadow prices exist in education (for instance, the cost associated with attaining a college degree or the cost associated with early childhood education²⁹). Shadow prices for SE skills could greatly facilitate future economic assessment.

Future research should investigate how the linkages between SE skills, well-being, and economic outcomes may differ for various people and across different settings. It will be important to understand how a variety of factors, such as individual (e.g., age, gender, socio-economic status) or contextual (neighborhood quality, local policies) characteristics may affect the relationship between SE skills and outcomes.

Finally, more attention is needed in conducting high-quality economic evaluations of programs to enhance SE skills. Economic evaluations can provide key information on the effectiveness of such efforts in general, but can also elucidate the potential value in reducing the need for public resources. Such evaluations should occur at multiple levels as SEL interventions may improve at the level of the child, the classroom outcomes, and more holistically for the functioning of the school overall (e.g., improved teacher outcomes, fewer necessary services, etc.).

The link between early SE skills and the long-term outcomes discussed above are likely causal, and the evidence that SEL programs can impact adolescent and adult outcomes has created interest in understanding their potential economic benefits.

Conclusion and Implications

The important role SE skills play in healthy human development and eventual well-being has been recognized by parents, educators, and employers for many years. There is now growing recognition of the economic implications of these skills, in terms of both generating economic benefits and preventing costly outcomes for individuals and society. This has led to a greater focus on the potential for effective programs to improve SE skills in children throughout development. Increased investment in such programming has the potential to generate an economic benefit (or savings) for individuals and society, and have a positive impact for population health overall.

While speculation regarding the economic implications may seem irrelevant or even inappropriate when recognizing the intrinsic value of social emotional health for success in school and life, attention toward this area is warranted. Economic evaluation of programs and policies to bolster SE skills that demonstrate a positive return-on-investment could in turn encourage more funding for such efforts. More generally, economically relevant outcomes are likely to be good indicators of SE health across the lifespan. A key next step is for researchers to more carefully assess how SE skills can be gauged using measures of well-being that translate into costs. Considering the economic value of SE skills is an important goal in helping to better understand their role in shaping individuals and healthy societies.

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