Research on Why Early Education Matters

The research on why quality early educational experiences matter for children is robust and based on studies of child development and the impact of early learning opportunities on child outcomes that date back more than 50 years. Below is a summary of some of the most critical takeaways from this extensive research literature, along with helpful citations that offer a snapshot into some of the evidence for each claim. Many of the resources contain content relevant to more than one of the key takeaways. Local educational agencies (LEAs) and extended learning and care partners are encouraged to use this evidence when building knowledge about the importance of early education in their communities.

Summary	Additional Information
Brain science: Close to 90% of brain growth happens by the time children turn five. The brain is particularly malleable and sensitive to environmental experiences before age five. During the early years, cognitive, social, and emotional development are inextricably intertwined in children's brains. Language skills, executive functions and social development also become more refined. Early experiences that nurture these facets of children's development are able to strengthen their overall brain architecture.	For more information on the brain architecture, visit the President and Fellows of Harvard College web page for Brain Architecture at https://developingchild.harvard.edu/science/key-concepts/brain-architecture/
Preschool prepares children for kindergarten: Children who attend quality preschool are better prepared for elementary school. Preschool helps children learn *how* to learn—such as being able to focus attention, stay on task, switch from one learning activity to another, comprehend directions, socialize and cooperate with peers, and learn foundational skills in math and literacy.	For more information, visit the direct link provided by the Brookings Institution at https://www.brookings.edu/wp-content/uploads/2017/04/consensus-statement_final.pdf

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Preschool has long term impacts on school progress, graduation, and future life outcomes: Children who attend high-quality early education programs have better long-term outcomes, such as a higher likelihood of graduating high school, better health outcomes, increased wealth, and reductions in crime. Additionally, some programs—like the Abecedarian Project and the Chicago Child-Parent Centers—show education and life results including higher graduation rates and fewer placements in special education classes.	To learn more about the Impacts of Early Childhood Education on Medium- and Long-Term Educational Outcomes, visit the National Library of Medicine's web page at https://pubmed.ncbi.nlm.nih.gov/30147124/ The Carolina Abecedarian Project is a program of the Frank Porter Graham (FPG) Child Development Institute of the University of North Carolina at Chapel Hill. For more information about the project, visit the FPG Child Development Institute's web page at: https://abc.fpg.unc.edu/abecedarian-project For more information on the Perry Preschool Project, a study from Ypsilanti, MI, visit the Social Programs that Work web page at: https://evidencebasedprograms.org/programs/perry-preschool-project/ For more information on the Chicago Child Parent Centers, a description of the program from the Population Health Institute at the University of Wisconsin-Madison can be found at: https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/chicago-child-parent-centers

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Prekindergarten through third grade (P-3) alignment can support enduring benefits from preschool: Although preschool has the potential to significantly improve the outcomes of young children in the short-term, to sustain these impacts in the long-term, it is critical that experiences after preschool build upon, and even amplify, children's early gains through intentional and aligned instruction that meets the needs of individual children in kindergarten and throughout the elementary school grades.	To learn more about opportunities and challenges for P-3 alignment in California, read this article titled, "PreK–3 Alignment: Challenges and Opportunities in California" (PDF) from the Policy Analysis for California Education and authors Julia E. Koppich and Deborah Stipek at https://files.eric.ed.gov/fulltext/ED605088.pdf To learn more about the body of research examining the effectiveness of preschool and implications for policymakers, read "Untangling the Evidence on Preschool Effectiveness: Insights for Policymakers" by visiting the Learning Policy Institute's Early Childhood Learning web page at https://learningpolicyinstitute.org/product/untangling-evidence-preschool-effectiveness-report To learn more about the body of research examining the prekindergarten effects, read statement "Puzzling It Out: The Current State of Scientific Knowledge on Pre-Kindergarten Effects" (PDF) at https://www.brookings.edu/wp-content/uploads/2017/04/consensus-statement_final.pdf

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Quality matters: Early education is most effective when it is high-quality. The building blocks of a high-quality early education experience include early learning standards and curricula that address the whole child, assessments that cover a wide range of children's developing skills and are used to inform instruction, well-prepared teachers that provide engaging interactions, ongoing support for teachers, support for multilingual learners and children with special needs, meaningful family engagement, sufficient learning time, small class sizes, and program assessments that monitor the quality of children's experiences. These effectiveness factors seem to support the most successful programs.	To learn more about the body of research examining essential elements of quality, read "The Building Blocks of High-Quality Early Childhood Programs" via the Learning Policy Institute's Early Childhood Learning web page at https://learningpolicyinstitute.org/product/building-blocks-high-quality-early-childhood-education-programs To learn more about the body of research examining the role of quality in the effects of prekindergarten on child outcomes, read statement "Puzzling It Out: The Current State of Scientific Knowledge on Pre-Kindergarten Effects" (PDF) at https://www.brookings.edu/wp-content/uploads/2017/04/consensus-statement_final.pdf To learn more about new research examining the role of quality in the effects of prekindergarten on child outcomes, read the policy brief "Exploring New Research on Pre-K Outcomes" through the Education Commission of the States web page at https://www.ecs.org/exploring-new-research-on-pre-k-outcomes/?utm_source=ECS+Subscribers&utm_campaign=9c542a8474-ED_CLIPS_02_04_2022&utm_medium=email&utm_term=0_1a2b00b930-9c542a8474-195750643

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Social-emotional skills: Early education environments are critical for nurturing young children's social-emotional skills. Interactions with same-aged peers through play—with teacher-supported conflict resolution in a warm and organized environment—can strengthen children's emotion regulation, social problem solving, and lead to reductions in externalizing and internalizing behaviors.	To learn more about the importance of social and emotional development and how early learning settings can support children's outcomes in this area, read "Beyond the ABCs and 123s: Social and Emotional Development in Early Learning Settings" by visiting the National Conference of State Legislatures' web page at https://www.ncsl.org/research/human-services/social-and-emotional-development-in-early-learning-settings.aspx
Language development: Research has shown how early education is particularly important for children's language development. High-quality, early education environments typically provide language-rich activities that provide children ample opportunity to engage in meaningful talk, explain their thinking, share ideas in their home language, and participate in group discussion of story books.	To learn more about the effects of early learning opportunities on children's language and literacy development, read "Language and Literacy Environments in Preschools" by visiting the WETA Reading Rockets web page at https://www.readingrockets.org/article/language-and-literacy-environments-preschools

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Dual language development: For children who are dual language learners (DLLs), there is substantial evidence that high-quality preschool experiences are critical to their school readiness and later school success. A study of California's transitional kindergarten (TK) program found that Spanish-speaking DLLs demonstrated significant gains in several developmental areas from TK participation, including English language proficiency and language, literacy, and math skills. Furthermore, studies have also shown that DLLs not only benefit from high-quality preschool experiences, but they may benefit more from their time in a high-quality early learning program than their English-only speaking peers. Likewise, growing evidence confirms that supporting home language development while teaching English promotes optimal development of both languages and overall achievement. Preschool may be the ideal time to provide young children with high-quality language interactions in both their home language and English, which studies have shown supports bilingualism and biliteracy, which carries significant advantages in multiple areas of development in the short- and long-term.	To learn more about the impact of TK on English language learners, read "Transitional Kindergarten in California: The Impact of Transitional Kindergarten on English Learner Students" (PDF) at https://www.air.org/sites/default/files/downloads/report/Transitional-Kindergarten-Impact-on-English-Learners-May-2017.pdf
Early literacy and math skills: Research has demonstrated how early education curriculum can provide children with a boost in early academic skills, providing them with a strong foundation prior to elementary school.	To learn more about the impacts of early childhood programs on early literacy and math skills, read "Research Brief #1: State Pre-Kindergarten" (PDF) at https://www.brookings.edu/wp-content/uploads/2016/07/09_early_programs_brief1.pdf

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Executive functioning: Early education environments provide the needed support and scaffolding to foster children's executive functioning development—including working memory, inhibitory control, and cognitive flexibility—which undergoes rapid development in the brain at age four. Executive functioning is also the foundation of overall learning behaviors in the classroom, where children learn how to be "learners", and actively participate in activities and the routine of the classroom. These behaviors are particularly important as children transition to elementary school.	To learn more about executive functioning and how early learning settings can support children's outcomes in this area, visit the Wiley Online Library web page to read "Preschoolers' Executive Function: Importance, Contributors, Research Needs and Assessment Options" at https://onlinelibrary.wiley.com/doi/full/10.1002/ets2.12148
Early identification and intervention for learning disabilities: Access to early education environments also increases access to early screening for learning disabilities, developmental delays, and intervention services. Children who are identified earlier and receive specialized support prior to elementary school tend to fare better in later schooling on academic achievement and demonstrate fewer instances of behavior problems.	To learn more about early identification and intervention and the role of early learning programs in ensuring these critical services for children, read "Early Identification and Intervention Systems in California" (PDF) at https://www.packard.org/wp-content/uploads/2018/03/Early-Identification-and-Intervention-Systems-in-CA-Full-Report.pdf
Inclusion is better for children with disabilities and their peers: Research has clearly shown that children with disabilities can, and do, benefit from quality preschool experiences, and that these impacts are more robust when children are served in inclusive settings alongside their typically developing peers. Furthermore, there is evidence to suggest that **all children** benefit from inclusive preschool settings. Research shows that typically developing children demonstrate developmental, social, and attitudinal benefits from inclusive experiences.	To learn more about the critical role of inclusive prekindergarten experiences for supporting children's outcomes, read "Preschool Inclusion: Key Findings from Research and Implications for Policy" (PDF) at https://www.nccp.org/wp-content/uploads/2020/05/text_1154.pdf

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Impacts on the economy: While we primarily focus on the impacts of early education on children, research has also illustrated the profound impacts that early education has on society at large. Due to the improved long-term outcomes on children who attend preschool, the economy receives a substantial return on investment for funding early education programs. For example, effective early childhood programs, like the Perry Preschool program, can generate a 7% to 10% per year return on investment based on increased school and career achievement, as well as reduced costs in remedial education, health and criminal justice system expenditures.	To learn more about how investing in prekindergarten effects the economy, read Invest in Early Childhood Development: Reduce Deficits, Strengthen the Economy" by visiting the Heckman: The economics of human potential web page at https://heckmanequation.org/resource/invest-in-early-childhood-development-reduce-deficits-strengthen-the-economy/