



REL Southwest Ask-A-REL Response

Early Childhood Education

September 2017

Question:

To what extent are high-poverty early childhood education (ECE) students exposed to risk or protective factors that research suggests are associated with achievement?

Background:

“Poverty is not just a lack of money. It’s a shorthand for a host of other problems...that can interfere with a child’s ability to learn.

Educators and researchers in several of the nation’s largest districts are trying to look at schools based on a fuller picture of children’s experiences, rather than only seeing poverty as a label.

The Center for New York City Affairs identified 18 school and neighborhood indicators that contribute to high risk in urban schools with high concentration of poverty”^{1,2}:

School Factors:

1. Students eligible for free lunch
2. Students known to be in temporary housing
3. Students eligible for welfare benefits from the city Human Resources Administration
4. Special education students
5. Black or Hispanic students
6. Principal turnover
7. Teacher turnover
8. Student turnover
9. Student suspensions
10. Safety score on the district’s Learning Environment Survey
11. Engagement score on the Learning Environment Survey

¹ Sparks, S. D. (2014). *Study Gauges 'Risk Load' for High-Poverty Schools*. *Education Week*. Retrieved from <http://www.edweek.org/ew/articles/2014/11/06/12nycriskload.h34.html>.

² NOTE: Access Center for New York City Affairs report here <http://www.centernyc.org/betterpictureofpoverty/?rq=better%20picture%20of%20poverty>

Neighborhood Factors:

12. Involvement with the city's Administration for Children's Services
13. Poverty rate according to the U.S. Census for the school's attendance area
14. Adult education levels
15. Professional employment
16. Male unemployment
17. Presence of public housing in a school's attendance area
18. Presence of a homeless shelter in a school's attendance area

“The sooner at-risk students are identified, the more likely that preventative ‘remediation’ [or intervention] measures will be effective. Examples of remediation include³:

- remediation programs
- tutoring
- child care services
- medical care
- substance abuse awareness programs
- bilingual instruction
- employment training
- close follow up procedures on truancy and absenteeism.”

Response:

Following an established REL Southwest research protocol, we conducted a search for research reports as well as descriptive study articles on risk or protective factors on high poverty student outcomes. The sources included ERIC and other federally funded databases and organizations, research institutions, academic research databases, and general Internet search engines (For details, please see the methods section at the end of this memo.)

We have not evaluated the quality of references and the resources provided in this response and we offer them only for your reference. Also, we searched the references in the response from the most commonly used resources of research, but they are not comprehensive and other relevant references and resources may exist.

Research References

Anderson, Sara; Phillips, Deborah (2017). Is pre-K classroom quality associated with kindergarten and middle-school academic skills? *Developmental Psychology*, 53(6), 1063-1078. <https://eric.ed.gov/?id=EJ1142518>

From the ERIC abstract: “We employed data from a longitudinal investigation of over 1,000 children who participated in Tulsa's universal school-based pre-K program in 2005, and path modeling techniques, to examine the contribution of pre-K classroom quality to both kindergarten- and middle-school academic skills. We also examined gender and

³ Donnelly, M. (1987). *At-Risk Students* (ERIC Identifier: ED292172). ERIC Clearinghouse on Educational Management. Eugene, OR.

income-related differences in quality-outcome associations. Both Instructional and Emotional Support in pre-K classrooms, but not Classroom Management, assessed with the Classroom Assessment Scoring System (CLASS), were associated with kindergarten academic skills and, modestly indirectly associated through these immediate impacts, to middle-school test scores. Linear associations were found for Instructional Support whereas nonlinear patterns of association were evident for Emotional Support. Gender and income differences characterized Instructional Support-outcome associations. Results are discussed in terms of implications for improving pre-K quality as one avenue for supporting the ongoing development of academic skills.”

Ansari, A. & Winsler, A. (2014). Montessori public school pre-k programs and the school readiness of low-income Black and Latino children. *Journal of Educational Psychology*, 106(4), 1066-1079. <https://eric.ed.gov/?id=EJ1049465>

From the ERIC abstract: “Within the United States, there are a variety of early education models and curricula aimed at promoting young children's pre-academic, social, and behavioral skills. This study, using data from the Miami School Readiness Project (Winsler et al., 2008, 2012), examined the school readiness gains of low-income Latino (n = 7,045) and Black (n = 6,700) children enrolled in 2 different types of Title-1 public school pre-K programs: those in programs using the Montessori curriculum and those in more conventional programs using the High/Scope curriculum with a literacy supplement. Parents and teachers reported on children's socio-emotional and behavioral skills with the Devereux Early Childhood Assessment (Lebuffe & Naglieri, 1999), whereas children's pre-academic skills (cognitive, motor, and language) were assessed directly with the Learning Accomplishment Profile--Diagnostic (Nehring, Nehring, Bruni, & Randolph, 1992) at the beginning and end of their 4-year-old pre-K year. All children, regardless of curriculum, demonstrated gains across pre-academic, socio-emotional, and behavioral skills throughout the pre-K year; however, all children did not benefit equally from Montessori programs. Latino children in Montessori programs began the year at most risk in pre-academic and behavioral skills, yet exhibited the greatest gains across these domains and ended the year scoring above national averages. Conversely, Black children exhibited healthy gains in Montessori, but they demonstrated slightly greater gains when attending more conventional pre-K programs. Findings have implications for tailoring early childhood education programs for Latino and Black children from low-income communities.”

Barnes, M. A., Klein, A., Swank, P., Starkey, P., McCandliss, B., Flynn, K., Zucker, T., Huang, C., Fall, A. & Roberts, G. (2016). Effects of tutorial interventions in mathematics and attention for low-performing preschool children. *Journal of Research on Educational Effectiveness*, 9(4), 577-606. <https://eric.ed.gov/?id=EJ1115262>

From the ERIC abstract: “Two intervention approaches designed to address the multifaceted academic and cognitive difficulties of low-income children who enter pre-K with very low math knowledge were tested in a randomized experiment. Blocking on classroom, children who met screening criteria were assigned to a Math + Attention condition in which the Pre-Kindergarten Mathematics Tutorial (PKMT) intervention was implemented (4 days/week for 24 weeks) in addition to 16 adaptive attention training

sessions, a Math-Only condition using the PKMT intervention, or a business-as-usual condition. Five hundred eighteen children were assessed at pretest and posttest. There was a significant effect of the PKMT intervention on a broad measure of informal mathematical knowledge and a small but significant effect on a measure of numerical knowledge. Attention training was associated with small effects on attention, but did not provide additional benefit for mathematics. A main effect of state on math outcomes was associated with a stronger, numeracy-focused Tier 1 mathematics curriculum in one state. Findings are discussed with respect to increasing intensity of math-specific and domain-general interventions for young children at risk for mathematical learning difficulties.”

Duncan, G. J., Ludwig, J. & Magnuson, K. A. (2007). Reducing poverty through preschool interventions. *Future of Children*, 17(2), 143-160. <https://eric.ed.gov/?id=EJ795866>

From the ERIC Abstract: “Greg Duncan, Jens Ludwig, and Katherine Magnuson explain how providing high-quality care to disadvantaged preschool children can help reduce poverty. In early childhood, they note, children’s cognitive and socioemotional skills develop rapidly and are sensitive to “inputs” from parents, home learning environments, child care settings, and the health care system. The authors propose an intensive two-year, education-focused intervention for economically disadvantaged three- and four-year-olds. Classrooms would be staffed by college-trained teachers and have no more than six children per teacher. Instruction would be based on proven preschool academic and behavioral curricula and would be provided to children for three hours a day, with wraparound child care available to working parents. The authors estimate that the annual cost of the instructional portion of the program would be about \$8,000, with child care adding up to another \$4,000. The program would fully subsidize low-income children’s participation; high-income parents would pay the full cost. The total cost of the proposal, net of current spending, would be \$20 billion a year. Researchers have estimated that a few very intensive early childhood programs have generated benefits of as much as \$8 to \$14 for every \$1 in cost. The authors think it unrealistic that a nationwide early education program could be equally socially profitable, but they estimate that their proposal would likely have benefits amounting to several times its cost. Some of the benefits would appear quickly in the form of less school retention and fewer special education classifications; others would show up later in the form of less crime and greater economic productivity. The authors estimate that their program would reduce the future poverty rates of participants by between 5 percent and 15 percent. (Contains 1 table and 50 notes.)”

Gaylor, E., Spiker, D., Wei, X., Lease, E. & Reynolds, A. (2015). Midwest Child-Parent Center (CPC) preK-3rd grade school reform model: Impacts on child and family outcomes over time. Society for Research on Educational Effectiveness (SREE), Spring 2015 Conference. <https://eric.ed.gov/?id=ED562345>

From the ERIC abstract: “This presentation reports on the goals and preliminary outcomes of the Child-Parent Centers (CPC) Expansion Project, which is a PreK to 3rd grade school reform model aimed at improving the short- and long-term outcomes of participating children and families. The model provides continuous education and family support services to schools serving a large percentage of low-income children. The model

is based on an earlier project implemented in the 1970s and 1980s in a large, Midwestern city which followed participating children into adulthood and demonstrated consistent positive outcomes across a range of domains, including educational achievement. The CPC Expansion Project includes a quasi-experimental design to examine the impact of the current model on kindergarten school readiness and second grade school achievement as well as the impact on parent involvement in children's education and learning. The presentation will describe the earlier CPC model and the robust long-term impacts found in participating children and their families. We will then describe the current expansion project model and its goals of impacting PreK to 3rd grade achievement through core implementation components. Finally, we will present preliminary findings on the early indicators of success and achievement, including parent involvement. These preliminary findings will be discussed as they relate to the long-term outcomes seen in the earlier model. The presentation will also include data on the feasibility of school-wide reform models and present fidelity of implementation in the first two years of the project corresponding with preschool and kindergarten participation. Findings indicate the model is being implemented well. Fidelity also informs the generalizability of the CPC model across districts. References, tables, and figures are appended.”

Goldstein, P., Warde, B. & Peluso, P. (2013). Children's readiness gains in publically funded, community-based pre-Kindergarten programs for 4 year olds and preschool for 3 year olds. *Child & Youth Care Forum*, 42(6), 507-523. <https://eric.ed.gov/?id=EJ1036106>

From the ERIC abstract: “Background: Many states provide public funding to facilitate school readiness for community-based pre-K and preschool programs for 4 year old children and "at risk" 3 year old children. Little research exists on the school readiness gains of children participating in these "garden variety" community-based programs. Objective: The current study evaluated the child outcome gains in cognitive, communication and social/learning domains of 4 year old pre-K children and 3 year old preschool children participating in publicly funded, community-based programs. Methods: A sample of 132 children (86 four year olds and 46 three year olds) participating in publicly funded community pre-K and preschool programs were assessed at the beginning and end of the year. Paired samples t tests were conducted to determine if the mean scores on posttests were significantly different than pretests on measures using SPSS software. Results: Findings revealed the 4 year old children significantly increased their standard scores (SS) in cognitive, receptive vocabulary and social-emotional development. No change in SS was reported on the communication subtest. There was no statistically significant change in SS of the 3 year olds in any of the areas assessed. Conclusions: Children attending the "garden variety" publicly supported community based pre-K programs make notable gains in school readiness, but growth rates remained stable for the 3 year olds. Mean scores at pretest on some of the subtests were below average indicating the programs are reaching at-risk children. Findings suggest differences in the structural variables of the two programs may have contributed to the outcomes.”

Hagan-Burke, S., Soares, D. A., Gonzalez, J. E., Zhu, L., Davis, H. S., Kwok, O., Pollard-Durodola, S. D., Saenz, L. M. & Resendez, N. M. (2016). Associations between problem behaviors and early vocabulary skills among Hispanic dual-language learners in pre-K. *Topics in Early Childhood Special Education*, 36(2), 91-102. <https://eric.ed.gov/?id=EJ1105663>

From the ERIC abstract: “This study examined the relations between problem behaviors and early learning outcomes among 138 children in dual-language pre-K programs who were identified at the beginning of the school year to be at risk for difficulties in early language and literacy development. Children's expressive and receptive vocabulary, listening comprehension, and conceptual thinking skills were assessed at the beginning of pre-K and again at the end of the school year. Their problem behaviors (externalizing, bullying, hyperactivity, and internalizing) were assessed midyear via teacher ratings. With the exception of internalizing problem behaviors, bivariate correlations indicated virtually no associations between children's entry-level academic skills and midyear ratings of problem behaviors. However, multilevel models controlling for student- and teacher-level variables revealed that midyear ratings of problem behaviors were statistically significant predictors of poor outcomes on several vocabulary-related measures administered at the end of pre-K.”

Jones, S. M., Kargman, M., Kargman, M. & Bailey, R. (2014). Preliminary impacts of SECURE preK on child- and classroom-level outcomes. Society for Research on Educational Effectiveness (SREE), Society for Research on Educational Effectiveness, SREE Spring 2014 Conference. <https://eric.ed.gov/?id=ED562750>

From the ERIC abstract: “This paper presents initial results from a pilot evaluation of the pre-K component of a new school-based intervention strategy (Social, Emotional, and Cognitive Understanding and Regulation in education, SECURE) for pre-kindergarten through 3rd grade that is designed to build skills in social-emotional learning (focusing on executive function and self-regulation as core developmental processes) and literacy. The SECURE intervention was conceived and developed based on the need to target low-income children's needs in school settings, given research suggesting that disparities in poor vs. non-poor children's educational outcomes widen as they move through early elementary grades. Researchers present findings in the context of findings from the K-3 pilot of SECURE, and discuss the process of developing and evaluating a cross-grade intervention, as well as the implications of this work for intervention in preschool and elementary settings. The SECURE K-3 and SECURE Pre-K studies took place over two consecutive years (2011-2012, and 2012-2013) in six public elementary schools in Phoenix, Arizona. In the SECURE Pre-K study, preschool classrooms receiving the SECURE intervention were Head Start classrooms that were co-located in elementary schools. Participants in the SECURE Pre-K study included 189 children (51% boys) in twelve Head Start classrooms. Data were gathered from children, their teachers, and in their classrooms over three waves in the 2012-13 academic year: fall, winter, and spring. The participating school district provided the following data for all preschool children and classrooms in the district: monthly attendance and tardy statistics; IEP status; DECA scores (Devereaux Early Childhood Assessment of social-emotional skills conducted by classroom teacher at school entry); Dial3 scores (a general developmental assessment

conducted by classroom teacher at school entry); TSG information (Teaching Strategies Gold); and CLASS scores (Classroom Assessment Scoring System). Researchers also conducted observations in SECURE classrooms at the winter and spring waves. These observations included completing the TSRS (Teaching Style Rating Scale) for each teacher, and a SECURE observation checklist for each classroom. Using simple hierarchical regression models with classrooms nested in schools (6), preliminary findings show: (1) differences favoring the SECURE Pre-K classrooms in spring of the preschool year for Emotional Support ($p < 0.07$, $ES = 0.88$) and for Classroom Organization ($p < 0.07$, $ES = 0.89$); and (2) differences favoring SECURE Pre-K children or the TSG social-emotional scale ($p < 0.01$, $ES = 0.72$) in spring, controlling the fall score. This study was funded as a preliminary pilot designed to provide initial exploratory evidence of feasibility and effectiveness (as is consistent with the NIH R21 and IES Goal 2 mechanisms).”

LeBoeuf, W. A., Barghaus, K., Fantuzzo, J., Coe, K., & Brumley, B. (2016). Actionable intelligence about early childhood risks in Philadelphia. Society for Research on Educational Effectiveness, Spring 2016 Conference <https://eric.ed.gov/?id=ED567208>

From the ERIC abstract: “‘Early childhood risks’ are markers of early childhood experiences that extensive research has shown to be detrimental to later academic and behavioral outcomes. In Philadelphia, evidence indicates that seven early childhood risks tracked by public agencies have negative effects on early school outcomes. These risks include low birthweight or preterm birth, inadequate prenatal care, teen mother, low maternal education, homelessness, lead exposure, and child maltreatment. The purpose of this research was to understand the early risk experiences of the entire population of children age 5 years in Philadelphia between 2008 and 2012. The specific questions were: (1) What are the prevalence rates of known early childhood risks, including low birthweight or preterm birth, inadequate prenatal care, teen mother, low maternal education, homelessness, lead exposure, and child maltreatment?; (2) What percentage of young children experienced multiple early childhood risks?; and (3) What is the geographic distribution of children experiencing multiple early childhood risks in Philadelphia? The Data Management Office (DMO) in the City of Philadelphia's Office for Health and Opportunity partnered with the Penn Child Research Center at the University of Pennsylvania's Graduate School of Education to create a data model that tracks evidence-based early risk experiences for children 0 to 5 years old. One table and three figures are appended.”

Marulis, Loren M.; Neuman, Susan B. (2010). The effects of vocabulary intervention on young children's word learning: A meta-analysis. *Review of Educational Research*, 80(3), 300-335. <https://eric.ed.gov/?id=EJ906930>

From the ERIC abstract: “This meta-analysis examines the effects of vocabulary interventions on pre-K and kindergarten children's oral language development. The authors quantitatively reviewed 67 studies and 216 effect sizes to better understand the impact of training on word learning. Results indicated an overall effect size of 0.88, demonstrating, on average, a gain of nearly one standard deviation on vocabulary measures. Moderator analyses reported greater effects for trained adults in providing the

treatment, combined pedagogical strategies that included explicit and implicit instruction, and author-created measures compared to standardized measures. Middle- and upper-income at-risk children were significantly more likely to benefit from vocabulary intervention than those students also at risk and poor. These results indicate that although they might improve oral language skills, vocabulary interventions are not sufficiently powerful to close the gap--even in the preschool and kindergarten years. (Contains 8 tables, 1 figure, and 1 note.)”

Mulligan, G. M., McCarroll, J. C., Flanagan, K. D. & Potter, D. (2016). *Findings from the third-grade round of the early childhood longitudinal study, Kindergarten class of 2010-11* (ECLS-K:2011): First Look. NCES 2016-094. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. <https://eric.ed.gov/?id=ED565782>

From the ERIC abstract: “The Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), is collecting information about the early educational experiences of a nationally representative sample of children who were in kindergarten or who were of kindergarten age in ungraded classrooms or schools in the 2010-11 school year. The data collection began in the 2010-11 school year, when the children in the sample were in kindergarten, and will continue through the spring of 2016, when most of the children in the sample are expected to be in fifth grade. This brief report provides information from the data collection conducted in the spring of 2014, when the majority of the students were in third grade. The ECLS-K:2011 provides information on students' status at school entry, on their transition into school, and on their progression through the elementary grades. The longitudinal nature of the ECLS-K:2011 data enables researchers to study how a wide range of family, school, community, and individual factors are associated with educational, socioemotional, and physical development over time. Information is being collected from the students, their parents and guardians, their teachers, and their school administrators. Information was also collected from their before- and after-school care providers in the kindergarten year. The ECLS-K:2011 is the third in a series of longitudinal studies of young children conducted by the National Center for Education Statistics (NCES), within the U.S. Department of Education's Institute of Education Sciences. The other studies in the Early Childhood Longitudinal Study (ECLS) program are the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K) and the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B). This report is intended to provide a snapshot of the children in the ECLS-K:2011 cohort who were in kindergarten for the first time in the 2010-11 school year and in third grade 3 years later during the spring of 2014.¹ Information is presented on selected child and family characteristics, such as poverty status, parental education, family type, and primary home language (table 1), obtained when the children were in kindergarten. Information is also provided on the children's knowledge and skills in reading (table 2), math (table 3), and science (table 4) in the spring of third grade, both overall and by the selected kindergarten-year child and family characteristics. The following are appended: (1) Survey Methodology and Glossary; and (2) Standard Error Tables.”

Starkey, P., Klein, A. & DeFlorio, L. (2013). Changing the developmental trajectory in early math through a two-year preschool math intervention. Society for Research on Educational Effectiveness (SREE), Fall 2013 Conference.

<https://eric.ed.gov/?id=ED563068>

From the ERIC abstract: “There is a national need for effective interventions to improve school readiness and subsequent achievement in mathematics for students from low-income families. The purpose of this study was to implement and evaluate a 2-year preschool math intervention that began at preschool entry when children were 3 years of age and continued through the end of the pre-kindergarten (pre-K) year. Three principal objectives will be addressed in this presentation: (1) to evaluate the efficacy of a math curriculum for 3-year-olds implemented in the pre-pre-kindergarten (pre-pre-K) year of preschool; (2) to compare the impact of a 2-year math intervention (implemented during pre-pre-K and pre-K years) with a 1-year math intervention (PK) or a business-as-usual control condition on children's mathematical knowledge at the end of preschool; and (3) to examine the longitudinal effects of the 2-year and 1-year math interventions on young children's mathematical development in kindergarten. The study was conducted in 63 classrooms in three Head Start programs in Northern California. Children remained in the same classrooms with the same teachers throughout their two years of preschool. The study concluded that the Pre-Pre-K Mathematics intervention had a large impact on 3-year-olds' mathematical knowledge. Likewise, the Pre-K Mathematics intervention had a significant impact on 4-year-olds' mathematical knowledge. The cumulative impact of receiving 1 vs. 2 years of math intervention appeared to be surprisingly similar at the end of pre-K. Gains children made during the 1-year intervention began to fade in K, but gains children made during the 2-year intervention were sustained in K. Possible explanations are better retention after 2 years of intervention or greater consolidation of previously learned informal math knowledge. Figures are appended.”

Williams, Sheara A. (2008). The ECLS-K study and database: A resource for school social work practitioners and researchers. *School Social Work Journal*, 33(1), 35-46.

<https://eric.ed.gov/?id=EJ893940>

From the ERIC abstract: “The purpose of this article is to introduce the Early Childhood Longitudinal Study-Kindergarten (ECLS-K) database to school social work practitioners and researchers. This database not only serves as a viable source for evidence-based practice pertaining to the influences of families and schools on the academic achievement of children beginning at school entry but also provides longitudinal capacities to analyze long-term impacts throughout children's primary education. The article provides an overview of the ECLS-K study, a discussion about use of the database and training opportunities, a brief presentation of select database variables relevant to school social work, and a discussion of the benefits of the ECLS-K as a source for secondary data analysis. The article concludes with applications for school social work practitioners.”

Additional Organizations to Consult

National Institute for Early Education Research at Rutgers University -

<http://nieer.org/about> and <http://nieer.org/state-preschool-yearbooks/the-state-of-preschool-2015>

From the website: “The National Institute for Early Education Research (NIEER) conducts academic research to inform policy supporting high-quality, early education for all young children. Such education promotes the physical, cognitive and social development needed for children to succeed in school and later life. NIEER provides independent, research-based analysis and technical assistance to policymakers, journalists, researchers, and educators.”

National Association for the Education of Young Children (NAEYC)—

<http://www.naeyc.org/>

From the website: “The National Association for the Education of Young Children (NAEYC) is a professional membership organization that works to promote high-quality early learning for all young children, birth through age 8, by connecting early childhood practice, policy, and research. We advance a diverse, dynamic early childhood profession and support all who care for, educate, and work on behalf of young children.”

Promised Neighborhoods Institute (PNI) at PolicyLink—

[http://www.promiseneighborhoodsinstitute.org/FindResources/Library?f\[0\]=field_resource_category%3A4551](http://www.promiseneighborhoodsinstitute.org/FindResources/Library?f[0]=field_resource_category%3A4551)

From the website: “PNI combines the leadership of PolicyLink, the Harlem Children's Zone, and the Center for the Study of Social Policy in order to provide resources and guidance to build and sustain burgeoning Promise Neighborhoods. Our work connects sites with local resources to wrap children in education, health, and social supports from the cradle-to-college-to-career, and serves as a link to federal, public, and private investors.”

U.S. Department of Education’s Early Learning Web Site—

<https://www2.ed.gov/about/inits/ed/earlylearning/index.html>

From the website: “Find the latest information about ED's work in supporting our nation's youngest learners.”

U.S. Department of Education’s Early Learning Web Site: Editor’s Picks—

<https://www2.ed.gov/teachers/how/early/edpicks.jhtml>

U.S. Department of Education Office of Innovation and Improvement: Promise Neighborhoods—

<https://www2.ed.gov/programs/promiseneighborhoods/index.html#description>

From the website: “Promise Neighborhoods, established under the legislative authority of the Fund for the Improvement of Education Program (FIE), provides funding to support eligible entities, including (1) nonprofit organizations, which may include faith-based nonprofit organizations, (2) institutions of higher education, and (3) Indian tribes.

The vision of the program is that all children and youth growing up in Promise Neighborhoods have access to great schools and strong systems of family and community support that will prepare them to attain an excellent education and successfully transition to college and a career.”

Methods

Keywords and Search Strings

The following keywords and search strings were used to search the reference databases and other sources:

High poverty risk factors for PreK students

High poverty protective factors for PreK students

Risk or protective factors on high poverty pre-K student outcomes

At risk PreK students

Databases and Resources

We searched ERIC for relevant resources. ERIC is a free online library of over 1.6 million citations of education research sponsored by the Institute of Education Sciences. Additionally, we searched Google Scholar and PsychInfo.

Reference Search and Selection Criteria

When we were searching and reviewing resources, we considered the following criteria:

Date of the publication: The most current information (primarily published from 2011 to the present) is included.

Search Priorities of Reference Sources: Search priority is given to study reports, briefs, and other documents that are published and/or reviewed by IES and other federal or federally funded organizations, academic databases, including ERIC, EBSCO databases, JSTOR database, PsychInfo, PsychArticle, and Google Scholar.

Methodology: Following methodological priorities/considerations were given in the review and selection of the references: (a) study types – randomized control trials, quasi experiments, surveys, descriptive data analyses, literature reviews, policy briefs, etc., generally in this order (b) target population, samples (representativeness of the target population, sample size, volunteered or randomly selected, etc.), study duration, etc. (c) limitations, generalizability of the findings and conclusions, etc.

This memorandum is one in a series of quick-turnaround responses to specific questions posed by stakeholders in the Southwest Region (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), which is served by the Regional Educational Laboratory (REL) Southwest at SEDL. This memorandum was prepared by REL Southwest under a contract with the U.S. Department of Education's Institute of Education Sciences (IES), Contract ED-IES-12-C-0012, administered by SEDL. Its content does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.