







# Infants, Toddlers and Poverty: References for Course Developers

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### Introduction

The following resource is designed to help higher education faculty who are creating infant-toddler coursework for non-traditional students and are seeking materials related to poverty. Following a brief explanation of the Know-See-Do-Improve framework, this document provides references, followed by summaries of articles and a listing of books that include content about infant/toddlers growing up in poverty. This is not an exhaustive list of references, but a guide to help think about what content to include when designing coursework. The articles are organized by two content areas—poverty and infant-toddler development and poverty and infant-toddler early childhood education—which are tied to the 2010 NAEYC Standards for Initial & Advanced Early Childhood Professional Preparation Programs.

Content Area	NAEYC Standard	Focus
Poverty and Infant and Toddler Development	1b	Knowing and understanding the multiple influences on development and learning
Poverty and Infant and Toddler Development & Poverty and Infant-Toddler Early Childhood Education	2a	Knowing and understanding diverse family and community characteristics
Poverty and Infant and Toddler Development & Poverty and Infant-Toddler Early Childhood Education	6d	Integrating knowledgeable, reflective, and critical perspectives on early education
Poverty and Infant and Toddler Development & Poverty and Infant-Toddler Early Childhood Education	6e	Engaging in informed advocacy for children and the profession
Poverty and Infant and Toddler Development	1b	Knowing and understanding the multiple influences on development and learning
Poverty and Infant and Toddler Development & Poverty and Infant-Toddler Early Childhood Education	2a	Knowing and understanding diverse family and community characteristics

### **Know-See-Do-Improve Framework**

The Know-See-Do-Improve Framework used by Early Educator Central helps guide course designers to ensure elements of the course include not just content (know) but also the important opportunities to see examples of competencies, to do or practice new skills and to then improve through reflective activities. This document focuses on the first element of the framework, with a rationale provided for why course developers should also include opportunities and integration of the other elements of the framework, i.e. see-do-improve.

Know—Content that aligns with the National Association for the Education of Young Children Standards for Early Childhood Professional Preparation, Head Start and Early Head Start Relationship-Based Competencies, CDATM Competency Standards and state core knowledge and competencies can promote a seamless career pathway from state to state and within states across sectors (portable) for the infant toddler workforce. Aligning with NAEYC standards is also a useful strategy to promote articulation.

See—Content that includes field-based or web-mediated examples of competency promotes the link between course content and a course participant's ability to understand what that competency looks like in a setting similar to their own.<sup>2</sup>

Do—Infant toddler professional development that provides an opportunity to apply knowledge in work/practicum settings allows caregivers to practice what they have learned and to reflect on their own demonstration of competency.<sup>3</sup>

Suggestions for this area of the framework include opportunities for teachers to video their own practice and then to have the instructor provide coaching to enhance the teacher's practice. This includes designing course activities that include time for planning the integration technology as appropriate and also practicing working with families with technology. Early Educator Central provides The Coaching Companion as an open-source online digital observation tool to aid in this process.

Improve—Infant toddler professional development that includes self-reflection and assessment by professional who uses an evidence-based tool provides the necessary components for competency-based learning and assessment. 4 The final step in the framework provides an opportunity for caregivers to submit a new demonstration (self-selected exemplar) and reflect on change with an expert PD professional. This final step can help to solidify understanding and

http://www.naeyc.org/files/naeyc/files/2009%20Professional%20Prep%20stdsRevised%204\_12.pdf

<sup>4</sup> Id.

<sup>&</sup>lt;sup>1</sup> U.S. Department of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service. (2010). Toward the identification of features of effective professional development for early childhood educators: Literature review. Retrieved from http://www2.ed.gov/rschstat/eval/professional-development/literaturereview.pdf; NAEYC. (2009). NAEYC Standards for early childhood professional preparation. Retrieved from http://www.naeyc.org/files/naeyc/files/2009%20Professional%20Prep%20stdsRevised%204 12.pdf

<sup>&</sup>lt;sup>2</sup> Hamre, B.K., Pianta, R.C., Burchinal, M., Field, S., LoCasale-Crouch, J., Downer, J....Scott-Little, C. (2012). A course on effective teacher-child interactions: Effects on teacher beliefs, knowledge, and observed practice. American Educational Research Journal, 49(1), 88-123. doi:10.3102/0002831211434596; Joseph, G. & Brennan, C. (2013). Framing quality: Annotated video-based portfolios of classroom practice by pre-service teachers. Early Childhood Education Journal, 41(6), 423-430; Pianta, R. C., Mashburn, A. J., Downer, J., Hamre, B. K. & Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. Early Childhood Research Quarterly, 23, 431-451.

<sup>&</sup>lt;sup>3</sup> Joseph, G. & Brennan, C. (2013). Framing quality: Annotated video-based portfolios of classroom practice by preservice teachers. Early Childhood Education Journal, 41(6), 423-430; U.S. Department of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service. (2010). Toward the identification of features of effective professional development for early childhood educators: Literature review. Retrieved from http://www2.ed.gov/rschstat/eval/professional-development/literature-review.pdf; NAEYC. (2009). NAEYC Standards for early childhood professional preparation. Retrieved from

application of new knowledge and skills. <sup>5</sup> Overtime, building in feedback loops with teachers will be imperative as they begin to practice new strategies and competencies for integrating self-reflection and knowledge into their practice about the impact of poverty on young children. The use of multiple assessment tools is more effective including the use of observation, self-reflection journaling and discussions with peers.

<sup>&</sup>lt;sup>5</sup> U.S. Department of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service. (2010). Toward the identification of features of effective professional development for early childhood educators: Literature review. Retrieved from <a href="http://www2.ed.gov/rschstat/eval/professional-development/literature-review.pdf">http://www2.ed.gov/rschstat/eval/professional-development/literature-review.pdf</a>; NAEYC (2009). *NAEYC Standards for early childhood professional preparation*. Retrieved from <a href="http://www.naeyc.org/files/naeyc/files/2009%20Professional%20Prep%20stdsRevised%204">http://www.naeyc.org/files/naeyc/files/2009%20Professional%20Prep%20stdsRevised%204</a> 12.pdf

# **Quick Reference Table**

Topic Area	Age Group	Document Type	Full Citation
Poverty and Infant-Toddler Development	Early Childhood	Research	Duncan, G.J., Brooks-Gunn, J. & Klebanov, P.K. (1994). Economic deprivation and early childhood development. Child Development, 65(2) 296-318.
Poverty and Infant-Toddler Development	Infants and Toddlers	Research	Burchinal, M., Vernon-Feagans, L., Cox, M., & Key Family Life Project Investigators. (2008). Cumulative social risk, parenting, and infant development in rural low-income communities. Parenting, Science and Practice, 8(1), 41–69. doi:10.1080/15295190701830672
Poverty and Infant-Toddler Development	Early Childhood	Research Working paper	National Scientific Council on the Developing Child (2010). Early experiences can alter gene expression and affect long-term development (Working Paper No. 10). Retrieved from http://developingchild.harvard.edu
Poverty and Infant-Toddler Development	Infants and Toddlers	Research	Ayoub, C., O'Connor, E., Rappolt-Schlictmann, G., Vallotton, C., Raikes, H., & Chazan-Cohen, R. (2009). Cognitive skill performance among young children living in poverty: Risk, change, and the promotive effects of early head start. Early Childhood Research Quarterly, 24(3), 289-305. Retrieved from http://dx.doi.org.udel.idm.oclc.org/10.1016/j.ecresq.2009.04.001
Poverty and Infant-Toddler Development	Early Childhood	Research	Bakermans-Kranenburg, M. J., IJzendoorn, M. H. v., & Kroonenberg, P. M. (2004). Differences in attachment security between African-American and white children: Ethnicity or socioeconomic status? Infant Behavior and Development, 27(3), 417-433. Retrieved from http://dx.doi.org.udel.idm.oclc.org/10.1016/j.infbeh.2004.02.002
Poverty and Infant-Toddler Development	Infants and Toddlers	Research	National Institute of Child Health and Human Development Early Child Care Research Network. (2005). Duration and developmental timing of poverty and children's cognitive and social development from birth through third grade. Child Development, 76(4), 795-810.
Poverty and Infant-Toddler Development	Toddlers	Research	Séguin, L., Xu, Q., Gauvin, L., Zunzunegui, M., Potvin, L., & Frohlich, K. L. (2005). Understanding the dimensions of socioeconomic status that influence toddlers' health: Unique

Topic Area	Age Group	Document Type	Full Citation
			impact of lack of money for basic needs in Quebec's birth cohort. Journal of Epidemiology and Community Health 59(1), 42-48. doi:10.1136/jech.2004.020438
Poverty and Infant-Toddler Development	Early Childhood	Research Review	Duncan, G. J., Magnuson, K., Kalil, A., & Ziol-Guest, K. (2012). The importance of early childhood poverty. Social Indicators Research, 108(1), 87-98. doi: 10.1007/s11205-011-9867-9
Poverty and Infant-Toddler Development	Toddlers	Research	Heberle, A. E., Thomas, Y. M., Wagmiller, R. L., Briggs-Gowan, M. J. & Carter, A. S. (2014), The impact of neighborhood, family, and individual risk factors on toddlers' disruptive behavior. Child Development, 85: 2046–2061. doi: 10.1111/cdev.12251
Poverty and Infant-Toddler Early Childhood Education	Toddlers	Research	Kyunghee. L., (2005). Effects of experimental Center-Based child care on developmental outcomes of young children living in poverty. Social Service Review, 79(1), 158-180. doi:10.1086/426721
Poverty and Infant-Toddler Early Childhood Education	Toddlers	Research	Ruzek, E., Burchinal, M., Farkas, G., & Duncan, G. J. (2014). The quality of toddler child care and cognitive skills at 24 months: Propensity score analysis results from the ECLS-B. Early Childhood Research Quarterly, 29(1), 12-21. Retrieved from http://dx.doi.org.udel.idm.oclc.org/10.1016/j.ecresq.2013.09.002
Poverty and Infant-Toddler Early Childhood Education	Early Childhood	Book	Hart, B., & Risley, T. R. (1995). Meaningful differences in the everyday experience of young American children. Baltimore, MD: Paul H Brookes Publishing.
Poverty and Infant-Toddler Early Childhood Education	Early Childhood	Book	Shonkoff, J. P., & Phillips, D. A. (2000). From neurons to neighborhoods: The science of early childhood development. Washington, DC: National Academy Press.

## **Poverty and Infant-Toddler Development**

Duncan, G.J., Brooks-Gunn, J. & Klebanov, P.K. (1994). Economic deprivation and early childhood development. *Child Development*, *65*(2) 296-318.

The authors in this study investigated economic deprivation and childhood development. Centering on three main questions they investigate first, how developmental outcomes are affected by poverty; second, the consequences of duration and timing of poverty; and third, a comparison in the influences of economic deprivation with families and neighborhoods. The authors also indicate the temporal dimension to poverty as they question the outcomes as related to duration and time of economic deprivation on child development. The method for this study began with the Panel Study of Income Dynamics, which sampled 568 African American and 796 white children age 0-3 in 1980. The Infant Health and Development Program (IHDP) was the primary data set. The results cited differences between race and the poverty experience. Specifically, only one-third of African American children escaped poverty while three-quarters of white children never lived in poverty. The authors continued by illustrating the dichotomous nature of poverty classification. Discussing the results, the authors revealed that family income is a stronger correlate to age-5 IQ than compared with other SES measures. For neighborhood effects, the data illustrated having affluent neighbors raised IQ however, having low-income neighbors did not negatively affect IQ scores at age 5. Racial inequities were also raised in this discussion as the data pointed to discrepancies between the races. This article helps to illustrate the overall impact that poverty has on early childhood development. In reference to a class for infants and toddlers, this article highlights the impact that economic deprivation during the infant and toddler years has on age 5 outcomes.

Burchinal, M., Vernon-Feagans, L., Cox, M., & Key Family Life Project Investigators. (2008). Cumulative social risk, parenting, and infant development in rural low-income communities. Parenting, Science and Practice, 8(1), 41–69. doi:10.1080/15295190701830672

Two geographically rural and poor regions in the United States (the Black South and Appalachian Mountains) served as the setting for the Family Life Project. Researchers followed 1,292 families until their infants were 15 months old. Social risk variables, geographic isolation, parenting measures, maternal language and infant outcomes were measured for the participants. Findings indicated that families had relatively moderate to high levels of social risk. Further, indications that poorer cognitive outcomes for 15 month old infants was related to a higher rate of exposure to social risk—this finding also included parenting aspects. Findings suggested that a change in parenting skills and first skills of parenting are predictive of infant's cognitive skills. In sum, this article contributes additional information on cumulative risk and infant outcomes.

National Scientific Council on the Developing Child (2010). Early experiences can alter gene expression and affect long-term development (Working Paper No. 10). Retrieved from <a href="http://developingchild.harvard.edu/">http://developingchild.harvard.edu/</a>

This working paper explains how the environment a child experiences influences the expression of genes. The environment in which children exist contributes to the building of their brain architecture and can dictate how genes are expressed, activated or turned off. This paper is divided into four different sections. The first section, what science can tell us, shares research about variables that affect the healthy development of children and the expression of certain genes. Information provided includes, epigenetic modification (chemical alterations of genes influenced by the environment), the brain's responsiveness to early development and brain architecture, early stress and the connection to later stress and disease, the influence of nutrients, drugs and other chemicals on gene expression as well as current research into the later alterations of genes that have been modified. The authors continue in the next section by correcting popular misrepresentation of science, where they address certain misconceptions from this research. In the science policy gap, and the implications for policy and programs, the authors discuss child welfare, infant and prenatal health care, toxic stress and the need for a comprehensive educational campaign to help many better understand this research.

Ayoub, C., O'Connor, E., Rappolt-Schlictmann, G., Vallotton, C., Raikes, H., & Chazan-Cohen, R. (2009). Cognitive skill performance among young children living in poverty: Risk, change, and the promotive effects of early head start. Early Childhood Research Quarterly, 24(3), 289-305. Retrieved from

http://dx.doi.org.udel.idm.oclc.org/10.1016/j.ecresg.2009.04.001

In this study the authors contribute to the cumulative risk literature and expand on research demonstrating that growing up in poverty can have a negative influence on a child's development. Specifically, they investigate children from one to three years of age living in poverty and the associations with cognitive outcomes and risk factors. Additionally the authors examine the effect of Early Head Start on the children's cognitive skills. Findings indicate that the children who participated in Early Head Start had higher skills in cognitive areas as compared to children who were not enrolled in this program. Further, the authors compared this sample to national norms and found there was a decrease in children's cognitive skills throughout the period of one to three years of age. A more rapid decline of these cognitive skill was found with children who had greater levels of negative emotions, experienced less cognitive and language experiences at home, whose families were on government assistance, and when maternal education status was less than high school. In addition, children whose parents were unemployed, received government assistance, and had a maternal education status of less than high school, had lower cognitive skills at age three. The authors discuss the limitations of this study and the implications, which include the potential for programs like Early Head Start and other early intervention to help alleviate the achievement gap.

Bakermans-Kranenburg, M. J., IJzendoorn, M. H. v., & Kroonenberg, P. M. (2004). Differences in attachment security between African-American and white children: Ethnicity or socio-economic status? Infant Behavior and Development, 27(3), 417-433. Retrieved from <a href="http://dx.doi.org.udel.idm.oclc.org/10.1016/j.infbeh.2004.02.002">http://dx.doi.org.udel.idm.oclc.org/10.1016/j.infbeh.2004.02.002</a>

The authors of this study used the National Institute of Child Health and Development (NICHD) Early Childcare Research Network data set to investigate the variations in attachment between African- American children and white children. Findings indicated that maternal sensitivity, in both groups, was the strongest predictor of attachment security. Differences between the ethnicities were discussed. However, findings indicate a family stress model of low-income status and maternal sensitivity affected attachment security. An important implication from this study was that poverty might seriously impact maternal sensitivity and therefore attachment.

National Institute of Child Health and Human Development Early Child Care Research Network. (2005). Duration and developmental timing of poverty and children's cognitive and social development from birth through third grade. Child Development, 76(4), 795-810.

The authors of this study investigated the duration and timing of children growing up in poverty with their social and cognitive development. The article's main purpose was to uncover additional processes of poverty that affect children. This study followed children from age 0 to 9 and divided the sample into four groups: families who had never lived in poverty, families who lived in poverty during the child's infancy 0-3, families who lived in poverty after the child was three years old and families who experienced chronic poverty. Children from families that lived in chronic poverty experienced lower quality environments for child rearing and had more reports of behavior problems and lower performance. Overall, children who experienced living in poverty at any time had lower outcomes than the children who never experienced poverty. In addition, findings showed that less positive parenting partially mediated the link between poverty and child outcomes. In sum, the duration of poverty had more associations with children's development than the timing of poverty. Interestingly, child care did not demonstrate a significant role in the differences between poverty groups. However, the authors stressed that interaction within the environments of children are dynamic and complex. The authors shared the limitations of the current study and directions for future research, which includes research on the timing and duration of timing within cultural and ethnic groups.

Séguin, L., Xu, Q., Gauvin, L., Zunzunegui, M., Potvin, L., & Frohlich, K. L. (2005). Understanding the dimensions of socioeconomic status that influence toddlers' health: Unique impact of lack of money for basic needs in Quebec's birth cohort. Journal of Epidemiology and Community Health 59(1), 42-48. doi:10.1136/jech.2004.020438

The authors in this study examined how socioeconomic status can affect the health of toddlers aged 17 to 29 months. Specifically the authors investigated the effect of serious financial difficulties, operationalized as families who did not have money for basic needs, and how that related to reports of health problems in toddlers. Data was analyzed from the Quebec Longitudinal Study of Child Development to investigate the mother's report of health problems such as asthma, hospitalization and an index of composite health problems, which included asthma attacks, growth delays, and other acute problems. Findings indicated that the variable of families who had higher

reports of scarcity of money to pay for basic needs was associated with incidents of health problems in toddlers. The authors discuss the limitations to this study.

# Duncan, G. J., Magnuson, K., Kalil, A., & Ziol-Guest, K. (2012). The importance of early childhood poverty. Social Indicators Research, 108(1), 87-98. doi: 10.1007/s11205-011-9867-9

The authors of this paper discussed the importance of early childhood poverty in the context of outcomes with current and previous research. The authors began by situating the issue within current research and discussing their focus on how low-income status plays a causal role in later life outcomes. They continued by discussing the difficulties in defining and measuring poverty and moved to discuss the research from both experimental and non-experimental studies that link early poverty with later life outcomes. An important component of this article is the section on "why early poverty may matter most" and the discussion of brain research and the interventions during the early years of the Abecedarian and Perry Preschool project. The authors ended with implications for policy.

Heberle, A. E., Thomas, Y. M., Wagmiller, R. L., Briggs-Gowan, M. J. and Carter, A. S. (2014), The Impact of Neighborhood, Family, and Individual Risk Factors on Toddlers' Disruptive Behavior. Child Development, 85: 2046–2061. doi: 10.1111/cdev.12251

This study investigated the potential of neighborhood disadvantage (defined with census data) as a risk factor for toddlers' behavior problems. The researchers sought to discover if neighborhood disadvantage had an effect on disruptive behavior after controlling for family disadvantage, exposure to conflict, the depressive manner of parents and parenting behavior. Using hierarchical linear modeling, findings indicated similar findings to research with older children, that neighborhood disadvantage had an association with disruptive behavior in toddlers. While neighborhoods were a "meaningful" predictor of behavior problems, across neighborhoods the differences in problem behavior were explained more clearly by other risk factors like conflict/violence exposure, family disadvantage, parenting and parent depressive symptoms. The authors shared how these findings contribute to the knowledge that socioeconomic disadvantage as a risk factor influences children's behavior problems. Limitations and implications for policy are discussed.

#### Additional resource:

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention. (2013, May). Prevalence of individual adverse childhood experiences. Retrieved from

http://www.cdc.gov/violenceprevention/acestudy/prevalence.html

The Adverse Childhood Experiences (ACE) study was conducted through a collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente's Health Appraisal Clinic in San Diego. The website above has information about the study and information on the 50 plus scientific articles and presentations generated from the study's findings. While following a conceptual framework (a pyramid), the study's purpose was to answer the overarching question: "If risk factors for disease, disability, and early mortality are not randomly distributed, what influences precede the adoption or development of them?" Noteworthy findings from this study demonstrate how exposure to traumatic stressors during childhood existed in about two thirds of participants. In fact, more than 20% indicated having exposure to three or more adverse childhood experiences (ACE) which were defined as abuse, neglect or household dysfunction. Both long term and short-term outcomes of this exposure led to a variety of negative health and social issues.

# **Poverty and Infant-Toddler Early Childhood Education**

Kyunghee. L., (2005). Effects of experimental center-based child care on developmental outcomes of young children living in poverty. Social Service Review, 79(1), 158-180. doi: 10.1086/426721

This study utilized data from the Infant Health and Development Program, which provided quality, center-based child care to children aged 12 to 36 months from families living in poverty. The researchers investigated how maternal employment affects the cognitive and behavioral outcomes of children at age three and if maternal employment affects these developmental outcomes differently for children in quality center-based care as compared to children not attending. Findings indicated that children who spend more time in the quality center based care, at three years old, had higher cognitive scores and less behavioral problems. In addition, maternal employment was not found as an association with outcomes. Limitations to the current study were addressed and policy recommendations were included.

Ruzek, E., Burchinal, M., Farkas, G., & Duncan, G. J. (2014). The quality of toddler child care and cognitive skills at 24 months: Propensity score analysis results from the ECLS-B. Early Childhood Research Quarterly, 29(1), 12-21. Retrieved from <a href="http://dx.doi.org.udel.idm.oclc.org/10.1016/j.ecresq.2013.09.002">http://dx.doi.org.udel.idm.oclc.org/10.1016/j.ecresq.2013.09.002</a>

The authors of this study utilized data from the Early Childhood Longitudinal Survey-Birth Cohort (ECLS-B) to provide descriptive data about the type, quantity and quality of toddler child care and to investigate the relationship of quality to toddlers' cognitive development. Findings indicated that a large majority of toddlers attended nonparent care settings. Further, quality child care was related to early cognitive development, as scores were higher for toddlers in medium to high quality care. The authors also found that the quality of toddler care is somewhat lower than preschool care. They suggested that this may be due to the higher expense that toddler care entails. Similar to previous findings, the authors found that low-income families were less likely to be in nonparent child care settings. For those low-income families that did use nonparent child care settings, they were more likely to experience lower quality child care in family child care but not in center-based

child care. Implications included the suggestion that increasing the enrollment of low-income children in high quality settings could help to reduce the achievement gap.

#### **Books**

The following list of books provide information about poverty and working with infant and toddlers. These books include content in multiple areas that may be relevant and helpful to course designers.

# Hart, B., & Risley, T. R. (1995). Meaningful differences in the everyday experience of young American children. Baltimore, MD: Paul H Brookes Publishing.

In their book, Meaningful Differences in the Everyday Experience of Young American Children, Hart and Risley document the differences in conversations that children from lower socioeconomic status (SES)backgrounds have verses their higher SES peers. Their interest stemmed from an observation in an earlier study that vocabulary differences were evident between a group of lower SES children and higher SES children. When examining children's conversations from two different contexts, the Turner House Preschool (lower SES children in attendance) and The Laboratory Preschool at The University of Kansas (higher SES children in attendance) Hart and Risley found that the main difference in the children's conversations was the amount of talking they did. Children at The Laboratory Preschool were talking more and using a richer vocabulary. Curious about this, Hart and Risley went on to investigate what differences were occurring in the home setting that could be impacting these differences. They conducted a longitudinal study documenting conversations of 42 families while their children were from about one to three years old. In the course of this study they found that while many similar and appropriate practices were taking place in families in regards to language, parents from lower SES talked less to their children then higher SES parents. Through a data analysis it was illustrated that the amount of time a parent talks with their child promotes exposure to new vocabulary. In other words, the quantity of language exposure is pertinent. In addition, quality of conversation is important. One of the quality features of conversation that was found to be important was interaction. Interaction and quality features of language were found to be present between all SES levels. The main difference was that children from lower SES backgrounds were exposed to less quality and quantity of conversation. In addition, one limitation found that children from lower SES backgrounds were less often exposed to new situations that would stimulate this kind of quality and quantity of conversations based on financial restraints. This "gap" in exposure is extensive by the time children are three between children in higher and lower SES backgrounds. In sum, this book provides an in-depth look at the experiences of young children and language.

# Shonkoff, J. P., & Phillips, D. A. (2000). From neurons to neighborhoods: The science of early childhood development. Washington, DC: National Academy Press.

This book integrates knowledge from scientific studies on early childhood development into a thorough report with many implications for both policy and practice. The committee for this report

was driven in part by what the authors call "a convergence of advancing knowledge" about early childhood development and "changing circumstance" including the difficulties in balancing work and life for parents, the increased amount of children in nonparental care settings, and improved knowledge of how stress impacts child development. Thus, the committee was charged with synthesizing the current landscape of research about early childhood development, early experiences and to demonstrate the flaws in some misinterpretations of the research. There are multiple references to research and policy implications for infants and toddlers in this book. Two prominent examples as cited in the book are the following findings:

- The research that demonstrates that infants can be protected from the effects of poverty in child care (Caughy, Dipetro, & Strobino, 1994)
- There is consistent evidence of the relationship between quality child care and early learning and cognitive outcomes, this association is especially strong for children growing up in low-income families (Perisner-Feinberg & Burchinal, 1997)

In summary, this book provides a thorough summary of the state of research as of 2000, implications for best-practice, policy and professional development and suggestions for future research.

#### **About the Author**

With over 20 years of experience in the field of early childhood, Kelley Perkins has worked as a teacher in early childhood classrooms, an administrator in infant/toddler and preschool programs, a technical assistant and in specific policy oriented positions. Additionally, she has experience designing higher education courses and extensive knowledge of designing and implementing professional development opportunities in the field. Currently, she is an Assistant Professor at Rowan University in Glassboro, New Jersey.