



# early warning confirmed



A RESEARCH UPDATE ON THIRD-GRADE READING



THE ANNIE E. CASEY FOUNDATION

## Executive Summary

In May 2010, the Annie E. Casey Foundation published a KIDS COUNT special report, *Early Warning: Why Reading by the End of Third Grade Matters*, to launch the national Campaign for Grade-Level Reading. *Early Warning* summarized the research basis for focusing on grade-level reading proficiency as an essential step toward increasing the number of children who succeed academically, graduate from high school on time and do well in life and the workforce. In 2013, we revisited the issues and arguments raised in that report to see whether newer research continues to support the Campaign's assumptions and whether other findings have emerged that refine our understanding of what it will take to get more children, especially those from low-income families, reading at grade level by the end of third grade. Our report by Leila Fiester, *Early Warning Confirmed: A Research Update on Third-Grade Reading*, found that the newest research reaffirms *Early Warning's* premises and heightens the sense of urgency around third-grade reading proficiency.

**Early-grade reading proficiency in the United States continues to be unacceptably low for students from low-income families and children of color.** In 2011, 82 percent of fourth-graders from low-income families — and 84 percent of low-income students who attend high-poverty schools — failed to reach the “proficient”

level in reading on the National Assessment of Educational Progress (NAEP). Although the poverty/achievement gap narrowed in four states (Arizona, New Hampshire, New York and Pennsylvania), it widened in six states (Colorado, Maine, Oregon, Vermont, Washington and West Virginia) and the District of Columbia. The share of low-income black, Hispanic, and Native American students who scored below proficient on the NAEP reading test was very high (88, 86 and 87 percent, respectively) and much larger than the share of low-income white or Asian/Pacific Islander students (74 and 72 percent).

**New research has helped quantify and reinforce the correlations that *Early Warning* drew between poverty, failure to read proficiently and failure to graduate from high school.** Sociologist Donald Hernandez found that children who do not read proficiently by the end of third grade are four times more likely to leave school without a diploma than proficient readers. Black and Hispanic children who are not reading proficiently in third grade are twice as likely as similar white children not to graduate from high school (about 25 vs. 13 percent).

When we add poverty to the analysis, the findings are even more sobering. Hernandez found that the graduation failure rate for children who cannot read

proficiently and are poor for at least one year is 26 percent, or more than six times the rate for all proficient readers. Overall, 22 percent of children who have lived in poverty do not graduate from high school, a figure about three times greater than the rate for children with no family poverty experience.

Other researchers of the poverty/achievement connection have quantified the gap between children from low-income and wealthier families and tracked the gap's growth over time. An analysis of data from 19 nationally representative studies found that the gap between children of families from the lowest and highest quartiles of socioeconomic status is equal to roughly three to six years of learning on reading tests. The analysis further found that the academic achievement gap between children from high- and low-income families is nearly twice as large as the black-white achievement gap.

One way that poverty affects academic outcomes is by suppressing children's genetic potential for cognitive achievement, new research suggests. A study of 1,500 children found that, while children from wealthier families may not be genetically "smarter" than children from poorer families, they have more opportunities to reach their potential — and the differences in cognitive

development that stem from socioeconomic disparities begin to appear very early in a child's life.

**"Place" has been confirmed as an important factor in the interaction among poverty, reading proficiency and academic achievement.** In 2012, Donald Hernandez reported that "living in a high-poverty neighborhood exacerbates the effects of poor reading skills and family poverty." More than one-third of children who can't read, are poor and live in a poor neighborhood fail to finish high school. Even being a good reader cannot fully compensate for the risk that comes from living in a high-poverty neighborhood: 14 percent of good readers from high-poverty communities fail to graduate, compared to only 2 to 4 percent of good readers from affluent or middle-income neighborhoods.

**Trends in the nation's demographic composition reinforce both the challenge, and the necessity, for children from low-income families and children of color to read proficiently so they can succeed in (and graduate from) school.** KIDS COUNT data show that the number of children living in areas of concentrated poverty is growing, and the population of students taking the 2011 NAEP was poorer in 2011 than in previous assessment years. These trends are troublesome, given new findings that mass layoffs of working parents can cause children's NAEP scores to decrease.



## Factors That Contribute To Third-Grade Reading Proficiency

- **School readiness** Research continues to show that fewer children from low-income families (less than half) are ready for school at kindergarten entry, compared to three-quarters of children from families with moderate or high incomes. For children from low-income families, preschool attendance is one of the strongest factors in school readiness; attending a high-quality early childhood program also predicts higher levels of achievement at age 11. A follow-up study of the Abecedarian Project found that by age 30, participants were four times more likely to obtain a college degree than nonparticipants. Entering school ready to learn can improve one's chances of reaching middle-class status by age 40. And a study of the Child-Parent Center program found a long-term return to society of \$8.24 for every dollar invested during the first four to six years of school, including prekindergarten.
- **School attendance** A report by Johns Hopkins University researchers suggested that the national rate of chronic absenteeism is 10 to 15 percent, meaning that 5 million to 7.5 million students miss at least 10 percent of their school days every year. The premise that schools fail to detect high levels of chronic absence because of data issues was confirmed by a study conducted jointly by the Child and Family Policy Center and Attendance Works. Other studies confirmed that chronic absence has a negative effect on students' academic performance and cognitive development, especially for children from low-income families, and several new reports and evaluations measured the quality and effectiveness of chronic absence interventions.
- **Summer learning** Studies of summer learning programs in several different contexts all confirmed that high-quality summer programs can disrupt learning loss. Research on children from low-income families also offered new evidence that having access to books can ameliorate the summer learning slide and significantly improve scores on state reading assessments; the largest effects were for the most economically disadvantaged children.
- **Family support** Research published right before *Early Warning* helped explain how environmental factors like hunger, housing insecurity, parental depression and abuse influence the epigenome (the human "operating system"), making it more likely that specific genes will or will not be expressed. Other new research draws a link between the stress of poverty, hormonal changes and impaired learning ability. However, new research reveals that even after the epigenome has been modified by extreme childhood stress, the damage may be reversed. Furthermore, positive social-emotional experiences for young children, along with supportive family and community environments, reduce the likelihood of negative modifications to the epigenome that might impair learning.
- **High-quality teaching in home, community and school settings** New research underscores the importance of enriched home learning environments and parent engagement in preparing children from low-income families to succeed in school. A five-year study of more than 1,850 children and their mothers found that children whose learning environments were of consistently low quality were much more likely to have language and literacy delays before kindergarten, while supportive home learning experiences could help close the school readiness gap. Classroom

and community strategies to improve children's literacy continue to draw attention, while the research base grows to support the “seamless continuum” of education that *Early Warning* called for. To name just a few: The Alliance for Early Success (formerly the Birth to Five Policy Alliance) published a policy framework tool that provides options for improving learning, health and family support for children from birth through age 8, with a priority on children from low-income families and other vulnerable populations; a U.S. Department of Education guide for educators recommended strategies to help students in kindergarten through third grade understand what they read; the American Federation of Teachers published a summary of strategies for improving the transition from child care, preschool and home settings to school; and a report by the Center for American Progress proposed reforms to boost the effectiveness and efficiency of public investments in early childhood education.

## Conclusions

Three years after the publication of *Early Warning* and the start of the Campaign for Grade-Level Reading, a wealth of new research supports the GLR Campaign's goal and sense of urgency. It reaffirms the hypothesis that third-grade reading proficiency is crucial for continued academic success and to break the cycle of inter-generational poverty, and the key factors in addressing the problem. The knowledge base continues to grow. And with each new finding, we gain more insight, resources and confidence for the challenge of helping more children, especially those from low-income families, read at grade level by the end of third grade.

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The full report, *Early Warning Confirmed: A Research Update on Third-Grade Reading* (with citations and more data), is available online at [www.aecf.org](http://www.aecf.org).

The Annie E. Casey Foundation is a private philanthropy that creates a brighter future for the nation's children by developing solutions to strengthen families, build paths to economic opportunity and transform struggling communities into safer and healthier places to live, work and grow. For more information, visit [www.aecf.org](http://www.aecf.org).

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