Rural Early Childhood Brief No. 4 July 2005



American Indian and Alaska Native Young Children: Findings from the ECLS-K and ECLS-B Baseline Data

Rural American Indian

children are significantly

and Alaska Native

more likely than

literacy skills.

other rural children

to experience positive

discipline at home, but

less likely to have early

Introduction

Analysis of health and school readiness indicators for American Indian and Alaska Native children in two federal longitudinal studies was a specific recommendation of the American Indian

and Alaska Native Education Research Agenda (2001). The agenda was the product of White House Executive Order 13096 (1998) and reflected a scarcity of research on early childhood development and education for American Indian and Alaska Native (AI-AN) children (Demmert, 2001). A working group gathered ideas through a series of regional forums, a confer-

ence, and other means, ultimately setting the following priorities for research in the area of early childhood education: status of infant and preschool children on school readiness indicators and availability of programs and services for infants and preschoolers (Strang, Von Glatz, & Hammer, 2002).

Specifically, the authors of the agenda called for comparison of health and school readiness indicators in the federal Early Childhood Longitudinal Study for rural and non-rural American Indian and Alaska Native (AI-AN) children, and of the

same indicators for rural AI-AN children and other rural children (Strang & Von Glatz, 2001). They indicated that the ECLS was "the most significant study ... underway" and predicted that findings concerning Native children would be "invaluable for Native researchers who seek to untangle the

interrelationships among personal characteristics, family background, community, early childhood services, and success in making the transition to school" (p. 34). "Comparisons of educational outcomes within the population of American Indian and Alaska Native students may be very useful. For example, comparisons could be based on ... urban or rural residence" (p. 11). The authors of the agenda noted that the ECLS Birth

Cohort included "a specific oversampling of the Indian population through a supplement provided by the Office of Indian Education" and that the ECLS Kindergarten Cohort would "provide useful data on high-poverty rural populations" (p. 14).

The National Center for Education Statistics (NCES) of the U.S. Department of Education launched the Early Childhood Longitudinal Study (ECLS), an ongoing study of a nationally representative sample of children, in 1998 by collecting baseline data for a national sample of children entering kindergarten, a group referred to as the

This brief presents selected findings from a rural analysis of the Kindergarten and Birth Cohorts of the Early Childhood Longitudinal Study (ECLS) by the National Center for Rural Early Childhood Learning Initiatives in collaboration with Child Trends. A forthcoming report will provide more findings from this rural analysis of baseline data in both ECLS cohorts and suggest questions for additional research.

ECLS Kindergarten Cohort or ECLS-K. The NCES launched a second study of a group, known as the ECLS Birth Cohort or ECLS-B, in 2001 when the children in that national sample were an average of 9 months old.

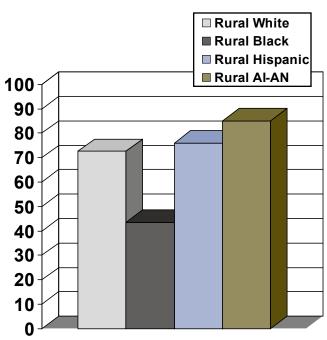
The National Center for Rural Early Childhood Learning Initiatives at Mississippi State University, known as Rural Early Childhood, commissioned the nonpartisan research organization Child Trends to conduct such an analysis of the ECLS-K and ECLS-B baseline data, focusing on selected indicators related to child and family health and socioeconomic status and children's readiness for school. It is important to note that this analysis does not examine whether family poverty or parental education, rather than rurality, is the key factor related in the disparities.

Findings

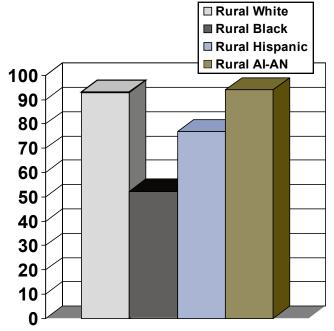
Overall, the baseline data in the ECLS-K and ECLS-B suggest that AI-AN children in rural America differed significantly from AI-AN children in non-rural areas and from rural children in other ethnic subgroups on numerous indicators.

American Indian and Alaska Native young children and families possess some important advantages in comparison to other rural children and families. Rural AI-AN parents in the ECLS-K were significantly more likely to indicate or exhibit positive parenting skills:

- Positive discipline: Rural AI-AN parents were significantly more likely than all other subgroups to report using positive discipline exclusively in response to their children hitting them (see Figure 1).
- Parental warmth: Rural AI-AN parents (76.1%) were about as likely as rural Non-Hispanic white (hereafter white) parents (77.8%) and more likely than other subgroups to exhibit high levels of parental warmth.
- Parental aggravation: Rural AI-AN parents (8.0%) showed similar levels of parental aggravation as rural white parents (7.6%) and were significantly less likely than rural Non-Hispanic black (hereafter black) parents (16.8%) to report high levels of aggravation.



<u>Figure 1.</u> Percentage of rural kindergarteners whose parents reported using positive discipline exclusively, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-K Baseline Data.)



<u>Figure 2.</u> Percentage of rural babies whose mothers provided toys or interesting activities, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-B Baseline Data.)

Rural AI-AN parents in the ECLS-B were more likely to exhibit positive parenting skills, during observation, than other rural parents:

- Encouraged play: Rural AI-AN parents were more likely than rural black and Hispanic parents to provide toys or interesting activities for their babies (see Figure 2).
- Allowed exploration: Rural AI-AN parents were less likely than rural white and Hispanic parents to interfere with or restrict their babies' actions or exploration at least three times during an observation (see Figure 3).

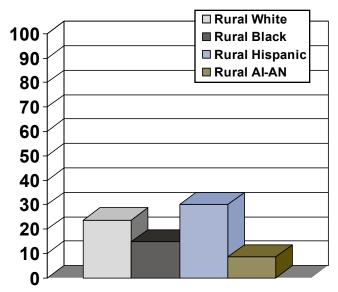
Rural life appears to offer some benefits for AI-AN children and their families in comparison to non-rural life:

- Head Start participation: Rural AI-AN kindergarteners were more likely than non-rural AI-AN kindergarteners to have attended a Head Start program (39.1% vs. 14.1%).
- Attendance at full-day kindergarten: Rural AI-AN kindergarteners were more likely than non-rural

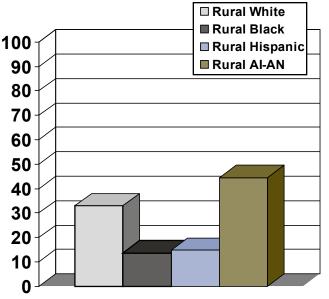
AI-AN kindergarteners to be enrolled in a full-day kindergarten program (89.8% vs. 37.8%).

For some indicators, however, rural life is related to significant risk factors for school success for AI-AN young children:

- Poverty: Rural AI-AN kindergarteners were more than twice as likely as non-rural AI-AN kindergarteners to live below the poverty threshold (60.5% vs. 23.1%).
- Parental education: Rural AI-AN kindergarteners were only about a third as likely as non-rural AI-AN kindergarteners to have a parent with a bachelor's degree or higher degree (7.8% vs. 26.4%).
- Parents reading to children: Rural AI-AN kinder-garteners were less likely than non-rural AI-AN kindergarteners to have a parent who read to them three or more times per week (60.5% vs. 82.7%).
- Children reading to selves: Rural AI-AN kinder-garteners were less likely than non-rural AI-AN kindergarteners to read to themselves outside school three or more times per week (58.2% vs. 82.4%).



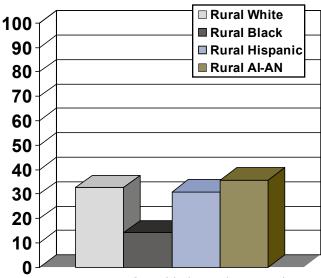
<u>Figure 3.</u> Percentage of rural babies whose mothers interfered or restricted child's actions or exploration at least three times, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-B Baseline Data.)



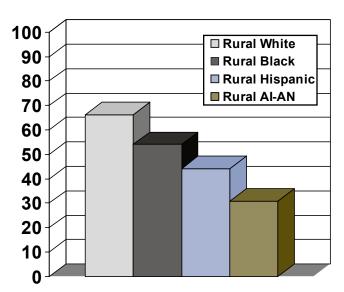
<u>Figure 4.</u> Percentage of rural babies whose mothers currently smoked, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-B Baseline Data.)

- Social competence: Rural AI-AN kindergarteners were less likely than non-rural AI-AN kindergarteners to very often exhibit social competence, according to parents' ratings of their children's ease in joining play, making and keeping friends, and interacting positively with other children (38.8% vs. 53.8%).
- Self-control: Rural AI-AN kindergarteners were less likely than non-rural AI-AN kindergarteners to very often exhibit self-control, as reflected in their respect for the property rights of others, control of their tempers, and acceptance of peer ideas for group activities (19.9% vs. 37.3%).
- Internalizing behavior problems: Rural AI-AN kindergarteners were more likely than non-rural AI-AN kindergarteners to exhibit internalizing behavior such as episodic stomachaches in response to change (10.8% vs. 4.9%).
- Externalizing behavior problems: Rural AI-AN kindergarteners were more likely than non-rural AI-AN kindergarteners to exhibit externalizing behavior such as routinely taking toys from other children and trying to hide their actions when questioned (15.3% vs. 7.3%).

- AI-AN young children and families, in comparison with other rural young children and families, are at a disadvantage in terms of certain health risks and early literacy skills:
- Breastfeeding: In the ECLS-B, rural AI-AN mothers (8.8%) were significantly less likely than rural white (25.6%) or Hispanic mothers (23.6%) to currently be breastfeeding their babies.
- Second-hand smoke exposure: In the ECLS-B, rural AI-AN babies were significantly more likely than rural black and Hispanic children to be exposed to smoking in the home (see Figure 4). There was no significant difference between AI-AN and white babies on this measure.
- Parental alcohol use: In the ECLS-B, rural AI-AN babies were significantly more likely than rural black babies to have mothers who drank in the 3 months before pregnancy (see Figure 5). There was no significant difference between AI-AN and white or Hispanic babies on this measure.
- Letter recognition: Rural AI-AN children in the ECLS-K were significantly less likely than rural white or black children to be proficient at letter recognition (see Figure 6).



<u>Figure 5.</u> Percentage of rural babies whose mothers drank in the 3 months before pregnancy, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-B Baseline Data.)



<u>Figure 6.</u> Percentage of rural kindergarteners who demonstrated proficiency at letter recognition at kindergarten entry, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-K Baseline Data.)

• Beginning sound recognition: Rural AI-AN children in the ECLS-K were less than one-fourth as likely as rural white children to be proficient at beginning sound recognition (see Figure 7).

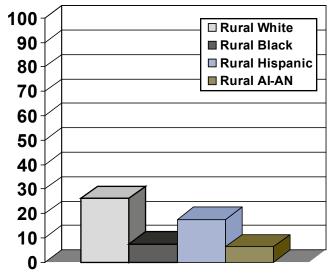
Although rural AI-AN children were more likely than their non-rural counterparts to participate in Head Start, overall, rural AI-AN children were more likely to be in parental care or care by a relative, than in a center-based program, in the year before kindergarten:

- Parental care only: Almost half of rural AI-AN babies were in no care outside the home (44.2%).
- Care by relatives: Of rural babies who received care by a relative other than a parent, the rate was significantly higher for AI-AN babies than for white or Hispanic babies (42.5%).
- Non-relative care: Only 5.1% of rural AI-AN babies were cared for by a non-relative (see Figure 8).
- Center-based pre-kindergarten care: Rural AI-AN children in the ECLS-K were less than one-third as likely as rural white children to have attended

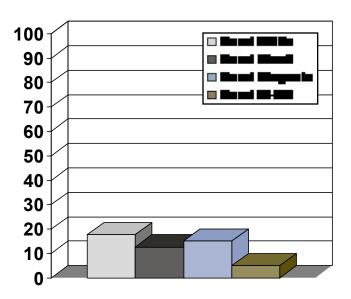
a center-based pre-kindergarten program (10.6% for AI-AN children vs. 35.3% for white children).

Conclusion

Comparisons of rural AI-AN young children to non-rural AI-AN young children and to rural young children in other ethnic subgroups, in the Kindergarten and Birth Cohorts of the Early Childhood Longitudinal Study, reveal that rural life is associated with some positive indicators for AI-AN children, particularly in the area of parental warmth and positive discipline. Rural AI-AN children and their families also were more likely than their non-rural counterparts to receive WIC, participate in Head Start, and participate in full-day kindergarten. However, rural life is associated with wide disparities for AI-AN children, in comparison with their non-rural counterparts, on indicators of behavior problems and social competence as well as being read to and reading outside of school. Rural AI-AN children and their families particularly differed from other subgroups of rural children on indicators of health-related behavior such as breast-feeding and exposure to second-hand smoke and indicators of early literacy development such as letter recognition.



<u>Figure 7.</u> Percentage of rural kindergarteners who demonstrated proficiency at beginning sound recognition at kindergarten entry, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-K Baseline Data.)



<u>Figure 8.</u> Percentage of rural babies for whom non-relative care is primary form of child care, by ethnicity. (Source: Rural Analysis by Rural Early Childhood and Child Trends of ECLS-B Baseline Data.)

References

Demmert, Jr., W. G. (2001). *Improving academic performance among Native American students*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

Strang, W., & Von Glatz, A. (2001). *American Indian and Alaska Native education research agenda*. Washington, DC: U.S. Department of Education.

Strang, W., Von Glatz, A., & Hammer, P. C. (2002). Setting the agenda: American Indian and Alaska Native education research priorities. (EDO-RC-02-14.) Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

Acknowledgements

Martha Zaslow, Ph.D., Brett Brown, Ph.D., and Dena Aufseeser of Child Trends performed this rural analysis of the ECLS-K. This Rural Early Childhood brief is a preview of a lengthier forthcoming report. The full report will be available in 2005.





© 2005 National Center for Rural Early Childhood Learning Initiatives

Rural Early Childhood P.O. Box 6013 Mississippi State, MS 39762 www.ruralec.msstate.edu



Mississippi State University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation or group affiliation, age disability, or veteran status.

The contents of this brief were developed under Grant # P116Z05-0056 from the U.S. Department of Education. However, the contents do not necessarily represent the policy of the Department of Education, and the reader should not assume endorsement by the Federal Government.