

# Too Hungry to Learn: Food Insecurity and School Readiness

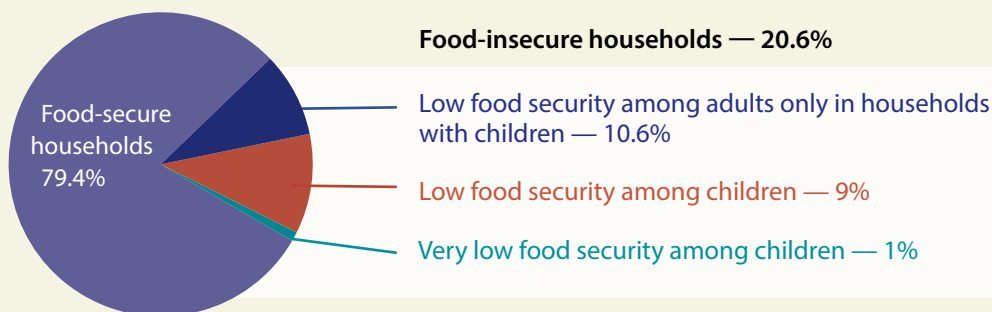
## Part I of II

**Food insecurity can damage children's health and brain development years before they enter a classroom. By kindergarten, food-insecure children often are cognitively, emotionally and physically behind their food-secure peers.** This report is the first in a two-part series addressing the relationship

between food insecurity, diminished educational attainment and implications for the U.S. workforce.<sup>1</sup>

**FOOD INSECURITY:** limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

One fifth of U.S. households with children (ages 0-18 years) experienced food insecurity in 2011



Source: Calculated by USDA, Economic Research Service using data from the December 2011 Current Population Survey Food Security Supplement.

In 2006 the USDA changed the official terms for food insecurity.

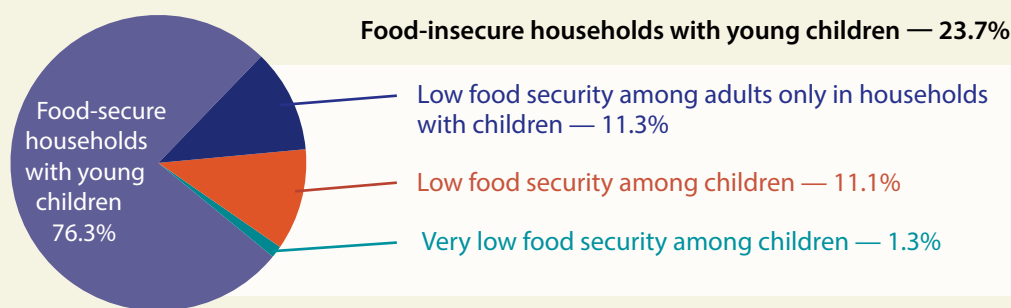
**LOW FOOD SECURITY** equates to food insecurity without hunger: reports of reduced quality, variety or desirability of diet.

**VERY LOW FOOD SECURITY** equates to food insecurity with hunger: **At times during the year, eating patterns of one or more household members were disrupted and food intake reduced because the household lacked money and other resources for food.**

> **A household experiences food insecurity when any member of the household does not have access at all times to enough healthful food for an active, healthy life.**<sup>1</sup> The annual United States Department of Agriculture (USDA) report on national food security reveals that the burden of food insecurity falls most heavily on families with children; families with young children are especially vulnerable. The USDA reported that 20.6% of US households with children ages 0-18 years, and 14.9% of all US households, experienced food insecurity in 2011.<sup>2</sup> Children's HealthWatch data indicate that 23.7% of households with young children (0-4 years) in our five-city sample are food-insecure.

These categories can be further differentiated among adults and children.

Food insecurity disproportionately affects households with young children (ages 0-4 years)



Source: Children's HealthWatch, 2012.



[www.childrenshealthwatch.org](http://www.childrenshealthwatch.org)

A non-partisan pediatric research center that monitors the impact of public policies and economic conditions on the health of low-income young children.

<sup>1</sup>The second brief in the series is entitled *Feeding Our Human Capital: Food Insecurity and the Workforce*

## Summary of Findings:

1. Food insecurity harms young children's health and development.
2. Due to increased risk for developmental delays, many food-insecure children have greater difficulty acquiring social and academic skills necessary to successfully transition to pre-school or kindergarten.
3. Food insecurity predicts poor performance during a child's first years at school which has implications for future academic success.
4. SNAP, WIC, and CACFP are federal programs that can help young children overcome the negative effects of food insecurity on school readiness by supporting their health and development through healthy nutrition at home and at school.

- > **Food insecurity is harmful to children's health.** Many studies have found that food insecurity harms children's health in a variety of ways.<sup>3,4</sup> Research conducted by Children's HealthWatch and others has found that food-insecure young children are nearly twice as likely to be in fair or poor health<sup>ii</sup> when compared to food-secure young children, and significantly more likely to be hospitalized.<sup>5,6</sup> Food-insecure children are also more likely to suffer from common illnesses such as stomachaches, headaches, and colds when they reach preschool age.<sup>6</sup> Research on the relationship between food insecurity in childhood and obesity is inconclusive. One longitudinal study of young children, however, suggests that persistent household food insecurity may be a contributing factor in childhood obesity.<sup>7</sup>
- > **Food insecurity is harmful to children's development.** Children's HealthWatch findings show that food insecure infants and toddlers are two thirds more likely than food-secure young children to be at risk for developmental delays.<sup>8</sup> Our research has also tied food insecurity to iron-deficiency anemia in young children,<sup>9</sup> a condition which negatively influences development of basic motor and social skills.<sup>10</sup> The stress that family hardships, like food-insecurity, place on a young child physically alter the development of crucial brain structures controlling memory<sup>11</sup> and psychosocial functioning.<sup>12</sup> Early childhood is the narrow window during which one builds the basic capacity to learn and interact productively with others; disrupting this brief period diminishes children's ability to acquire complex school skills as they grow, and, later, job skills.<sup>13</sup>
- > **The developmental impact of food insecurity in early childhood is sustained through a child's critical first years in school.** A study of school-aged children who suffered from iron-deficiency anemia as infants—a health outcome associated with food insecurity—found impaired memory and social functioning more than 10 years after the children had completed iron treatment.<sup>14</sup> Researchers examining the role of food insecurity in cognitive outcomes found that food-insecure 6-11 year-olds scored lower than their food-secure peers on a measure of child intelligence and were more likely to have seen a child psychologist. The same study also found that these children had a harder time getting along with others, were more likely to have repeated a grade, and had lower arithmetic and general achievement test scores than food-secure children in the same age group.<sup>15</sup> A study using data from the 1999 National Survey of American Families found that food insecurity predicts poor school engagement partly because food-insecure children tend to be in poor emotional and physical health.<sup>16</sup> In a longitudinal study, other researchers found that food insecurity in kindergarten was associated with poor reading performance and impaired social skills in later grades.
- > **Federal nutrition programs can improve school readiness by counteracting childhood food insecurity.** The Obama administration's initiative to increase access to public preschool,<sup>17</sup> is a very important step in improving the quality of life and long-term success of low-income children, especially if it includes high quality nutrition as part of the school day. It is clear, however, that the need for adequate, healthy food is present from birth, and that food security during these early days affects children's chances of receiving the full benefit of high quality early education. Food insecurity begins to harm children's health and development years before they ever enter a school building. School-only interventions that start at age four are insufficient by themselves. Parents and child care/early education providers require help preparing children nutritionally in the years leading up to elementary school. Given the vital roles that good food and nutrition play in preparing young

*“With the money food stamps provide, I was able to feed her breakfast . . . Without it what would she have eaten? . . . with the help . . . she didn’t have to go without.”* CRYSTAL S., WITNESS TO HUNGER

children to learn, ensuring that every young child has sufficient access to healthy food should be a top priority for the nation.

The Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the Child and Adult Care Food Program (CACFP) together help families and child care providers supply quality nutrition at home and in other care settings. These federal nutrition programs reach children before they start school and support them outside of school throughout their formative years. These programs effectively reduce household food insecurity<sup>18,19,20</sup> and help to counteract its negative impacts on school readiness.<sup>20,21,22</sup> SNAP, WIC and CACFP are also smart investments: they help to reduce the need for expensive health care, including hospitalizations,<sup>23</sup> and can reduce the need for costly later special education placements by supporting children’s health and development now.<sup>24</sup>

**Ending food insecurity in childhood needs to be a national child health priority; programs like SNAP, WIC and CACFP are part of the solution. They form a public health support system that every American family must be able to access in times of need. By championing the issue of childhood food security, and supporting federal nutrition programs, lawmakers can help ensure the future prosperity of the nation and give every child a fighting chance of success.**

**> The long-lasting negative effects of childhood food insecurity on school readiness translate into poor academic and, ultimately, economic outcomes.** The burden food insecurity in early life places on children’s future abilities to work and provide for themselves and their families, as well as on the work force and public well-being at the societal level, are the focus of a second brief in this series, *Feeding Our Human Capital: Food Insecurity and the Workforce*. We encourage readers of this brief to review that publication for additional information on policy solutions.

<sup>18</sup>Based on the health status question developed by RAND and used in NHANES. Fair/poor health status (compared to excellent/good) is positively correlated with higher rates of health care utilization.

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