

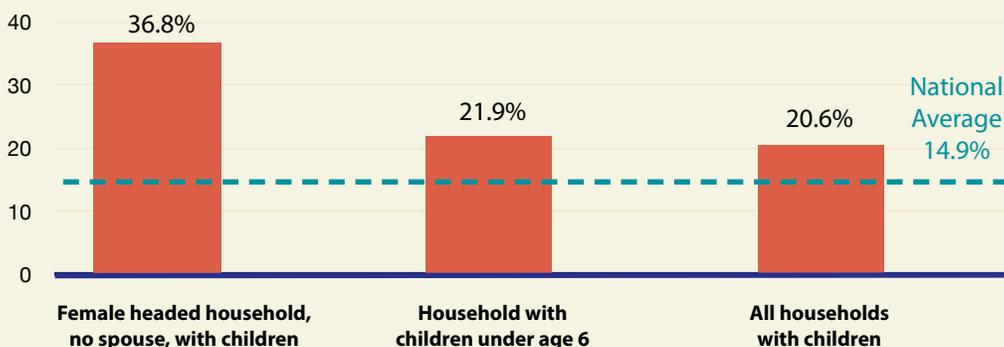
Feeding Our Human Capital: Food Insecurity and Tomorrow's Workforce

Part II of II

Food insecurity impacts the current and future health and development of children, weakening the workforce and increasing public costs.¹

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.¹ 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: 7.99 million households with children (20.6% of all US households with children) experienced food insecurity in 2011.²

Young children are disproportionately affected by food insecurity



Source: USDA/ERS, *Household Food Security in the United States in 2011*. September 2012.²

- > **Childhood food insecurity is associated with poor child health, increased risk for delayed development, and decreased intellectual and emotional readiness to start school.** Young children who experienced food insecurity as infants and toddlers are at a significant developmental disadvantage, upon entering kindergarten. Childhood food insecurity also has long-term impacts for educational attainment, as early childhood comprises the narrow window in which we develop our capacity to learn.³ Adolescents and adults who experienced developmental obstacles during early childhood will struggle more to acquire new school and job skills than those whose development was uninterrupted.^{4,5}
- > **Food insecurity hurts a child's chances of graduating from high school.** Research on school-aged children reveals that food insecurity negatively impacts school engagement⁶ which translates to lower math and reading scores as well as impaired social skills.⁷ Prior research on hunger among school-aged children found that those at-risk for hunger exhibited higher levels of hyperactivity, absenteeism, and tardiness,

> Human capital refers to the resources embodied and developed in people: their capacity to learn and develop useful skills, produce, create, invent and communicate, and expand their knowledge, abilities and potential.



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.

¹ This brief builds off the research on food insecurity and school readiness discussed in the first part of this research brief series, *Too Hungry to Learn: Food Insecurity and School Readiness*.

Summary of Findings:

1. Childhood food insecurity is associated with poor child health, delayed development, and decreased intellectual and emotional readiness to start kindergarten.
2. Food insecurity negatively impacts school engagement and behavior at each educational level, hurting a child's chances of graduating from high school.
3. Food-insecure children are at higher risk of growing into unhealthy adults.
4. Adult food insecurity is associated with poor physical and mental health, burdening families economically and harming children's development.
5. Food insecurity is an expensive public health problem. Together, childhood and adult food insecurity increase immediate and future costs to private businesses and taxpayers.
6. By supporting the following programs, we can prioritize children and the future prosperity of our nation:
 - Supplemental Nutrition Assistance Program (SNAP)
 - Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)
 - Child and Adult Care Food Program (CACFP)
 - Summer Food Service Program
 - National School Lunch Program
 - School Breakfast Program
 - Early Childhood Development Programs (ECDPs)

as reported by their teachers.⁸ A study of food-insufficient teenagers found that they not only scored lower on academic achievement tests, but were also more likely to have repeated a grade or been suspended than food-sufficient teenagers.⁹ Food insufficiency is a measurement that preceded the current USDA food security scale.

> Adolescents who fail to finish high school face a lifetime of unemployment, poor health, and stunted human capital.

Research on the relationship between academic success and economic mobility has found that annual earnings increase significantly with higher levels of education in America.¹⁰ High school is the only gateway to postsecondary education, which is widely accepted to be the best route to financial success and stability.¹¹ In addition to the economic consequences, failing to secure a high school diploma places young people on a life-long trajectory of poor health. Studies examining adult health have found that high school dropouts are at higher risk for chronic disease, more likely to be disabled, and have a shorter life expectancy overall.^{12,13} Food insecurity therefore translates into diminished human capital, or the "resources embedded in people."¹⁴

> Food-insecure children are at risk of becoming unhealthy adults.

Childhood hardships — like food insecurity — are known to have lasting, negative impacts on adult health.¹⁵ Prospective studies indicate that childhood food insecurity is a risk factor for multiple chronic diseases in adults, such as heart disease, diabetes and hypertension.^{16,17} Research also suggests that childhood food insecurity may put women, specifically, at risk for obesity later in life.¹⁷

> Adult food insecurity is associated with poor physical and mental health, burdening families economically and harming children's development.

Studies of low-income, non-elderly adults reveal that food insecurity has negative impacts on physical health,¹⁸ including increased risk for hypertension and type II diabetes.^{19,20} Food insecurity has also been linked to poor mental health in low-income adults. Multiple studies, by Children's HealthWatch researchers and others, have found strong relationships between food insecurity and maternal depression.^{21,22,23}

These findings also have implications for the pathways through which maternal well-being influences child development. Subsequent research on impacts of maternal depression has found that young children of depressed women have more behavioral problems and are at greater risk for cognitive delays than children of mothers in good mental health.^{8,24}

Maternal illness often decreases family income and increases the hardships experienced by all household members, including children. Children's HealthWatch data have previously shown that family hardships (including food insecurity and competing expenses like healthcare, energy, and housing costs) place young children at a higher risk for poor health and developmental delays.²⁵

> Food insecurity is expensive for both businesses and taxpayers and threatens the future of our economic prosperity.

Loss of human capital due to childhood food insecurity is translated into higher public costs, as decreased profits for private companies lead to reduced government tax revenue, and greater reliance on public assistance programs leads to higher government expenditures. Food insecurity also simultaneously creates both immediate and future health-related costs. Illness among employees, whether sick workers stay home (absenteeism) or clock in at their jobs but are less productive (presenteeism), increases employers' costs. The most recent analysis of absenteeism estimates per employee costs at \$660 a year; some large employers report over \$1 million in annual absentee costs.²⁶

Evidence suggests that presenteeism may result in even greater productivity losses, as workers in poor health attempt to fulfill their duties, but are less effective.²⁷

The public also incurs costs from sick workers and retirees as increased Medicare spending (\$466 billion in 2012).²⁸ In the past two decades, chronic conditions associated with child- and adult food insecurity—diabetes, obesity, hypertension, heart disease, etc.—have been primary contributors to increased Medicare costs.²⁹ Childhood food insecurity can create additional future costs as it diminishes educational attainment, reduces adults' capacity to secure gainful employment, and increases costs of unemployment insurance (\$94 billion in 2012).³⁰ While treating those who are sick now is crucial, taking preventative measures against future chronic illness by eliminating childhood food insecurity is also financially and socially vital.

Early Childhood Development Programs and nutritional interventions represent an investment in human capital that strengthens tomorrow's workforce.

Research strongly supports avoiding the developmental obstacles erected by childhood food insecurity, and enrolling at-risk young children in Early Childhood Development Programs (ECDPs) to remediate any adverse impacts it has already caused. ECDPs provide young children with an environment that encourages the development of basic skills and healthy social interactions. ECDPs benefit society as a whole in the form of improved academic performance and economic stability. Studies of older children and young adults enrolled in ECDPs as young children show that these students perform better in school, graduate high school at higher rates, and earn more than their peers who did not participate in ECDPs.³¹ Enrollment in ECDPs can offset the risk of developmental delays for children facing hardships like food insecurity.³² Helping more children access ECDPs now is an effective, efficient way of investing in the future of the nation's prosperity.

Coupling school-based nutrition interventions with ECDPs is a successful way to reap the proven benefits of both. In the first brief in this series, we discussed the importance of nutrition interventions for young children both at home and in childcare settings. 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, effectively reducing food insecurity^{33,34,35} and helping to counteract its negative impacts on school readiness.

For older children and teenagers, the USDA's Summer Food Service Program, National School Lunch Program, CACFP (after-school snacks/meals), and School Breakfast Program are important sources of nutritious foods. Together, these nutrition programs help to reduce the harm done by food insecurity to children's health and educational success. Children of all ages require and deserve adequate healthful foods, everywhere they are cared for or educated, to support their learning and ensure their healthy development.

"My husband and I are overweight due to unhealthy food. His cholesterol's high but it's hard to buy healthy food. Unhealthy food is less expensive but I feel like in the long run it will cause more medical problems. We make too much to get free lunch for our children. Sometimes it can be a struggle to make sure the older children are eating healthy. I'm thankful to Baltimore City Schools for providing free breakfast to our children."

MARGARET M., WITNESS TO HUNGER

Food insecurity threatens the well-being of adults and children today, and undermines the stability of our economy tomorrow. Political inertia or inaction on the issue of childhood food insecurity is an expense we cannot afford. To strengthen our future workforce and foster the prosperity of the nation, policy makers must prioritize child health now by supporting federal home- and school-based nutrition and Early Childhood Development Programs.

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