

Investing in the future of SC: Fact-sheet

Post-secondary education: Market demands in SC by 2020

- 85% of the jobs will require some post-secondary education
 - 58% of adults over 25 in SC have some post secondary education. (21% some college with no degree, 8% associate's degree, 18% bachelor's degree, 11% graduate degree)
- 65% of jobs will require a 2 or 4 year degree
 - 37% of adults over 25 in SC has an associate or bachelor's degree

Source: American Community Survey 2013

Filling the pipeline: High-school graduation in SC

- In 2013-2014, 1 in 5 students in South Carolina failed to complete high school according to the Education Oversight Committee
- And 41% of those high school graduates entering a technical collage required remediation costing 21 Million Annually according to the SC Technical College System.

Economic impact of High School Dropout

	High School Dropout	High School Graduate	College Graduate
Average Annual Earnings	\$20,241	\$30,627 (+10,386)	\$56,665 (+36,424)
Unemployment Rate	12%	8.1% (gen. pop.)	4.40%
Incarceration Rate	63 times higher than college graduate		
Average Fiscal Contribution (from age 18 to age 64)	(\$5,200)	\$287,000	

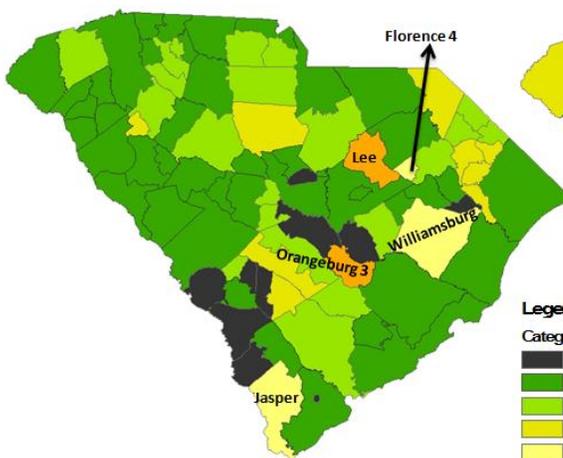
Source: US Census 2010; A Sum, The Consequences of Dropping Out of High School, 2009, Northeastern University; National Center for Educational Statistics

Which populations to target?

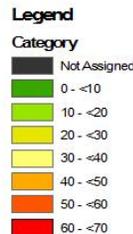
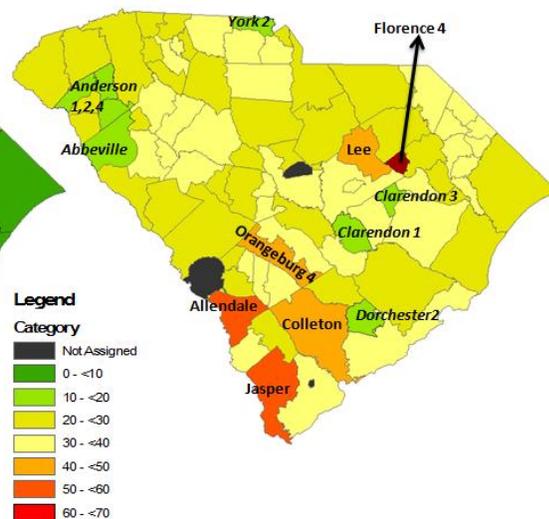
- **Children who do not read proficiently by the end of third grade** are four times more likely to leave school without a diploma than proficient readers.
 - **Low income children** who are not reading at grade level in third grade are 6 times more likely.

Percentage of 3rd graders in the public school system not reading at grade level

Middle and High income (Full-pay meals)



Low income (Subsidized meals)



Source: Maps prepared by SC Health Coordinating Council based on 2014 PASS Scores published by the SC Department of Education

A potential solution: Early Childhood Investment

- The foundations of life-long learning are largely formed in **the first 5 years of life**
- The architecture of the young brain, like a house, needs to be **built on a strong foundation**
- Skills beget skills. Brains are built **from the bottom up** in a hierarchical fashion
- Brain chemistry is heightened during **“sensitive” periods**
- Interaction of genes and experiences **shapes the circuitry** of the developing brain
- Brain plasticity and the **ability to change behavior decreases over time**
- Changes can be made later but they are very expensive and are unlikely to reach the same potential

Source: INBRIEF: The Science of Early Childhood Development, Harvard University: Center on the Developing Child

Outcomes of Early Childhood Investment: \$1.80 - \$17.07 per dollar invested

Throughout the education years:

- Lower rates of grade retention
- Lower rates of special education placement
- Higher test scores throughout K-12
- Improved social and emotional skills
- Significantly greater rates of high school graduation
- Significantly higher college attendance
- Lower teen pregnancy rates

In Adulthood:

- Increased employment rates and higher earnings
- Greater home ownership
- Lower probability of needing welfare
- Lower incarceration and crime rates
- Lower drug use
- Lower maternal depression

The Rand Corporation studied 15 past and current interventions and found that quality early childhood programs return to society between **\$1.80 and \$17.07 for every dollar invested**

Building on successful efforts in South Carolina

Ages 0-3

Nurse Family Partnership

Parents as Teachers

BabyNet

Healthy Start

Reach out and Read

Ages 4+

Head Start

4K—Private and public providers

More information:

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Recommended readings

Overviews of basic information

Key Concepts: Brain Architecture, brief by the Center on the Developing Child at Harvard, includes short, basic video on neural connections.

http://developingchild.harvard.edu/key_concepts/brain_architecture/

InBRIEF: The Science of Early Childhood Development, brief by the Center on the Developing Child at Harvard, includes short, basic video on the “serve and return” nature of development, levels and effects of stress on both short-term development and long-term health.

http://developingchild.harvard.edu/index.php/resources/briefs/inbrief_series/inbrief_the_science_of_early_childhood/

The Foundations of Lifelong Health are Built in Early Childhood. This publication was co-authored by the [National Scientific Council on the Developing Child](#) and the [National Forum on Early Childhood Policy and Programs](#). It has a summary of essential findings.

http://developingchild.harvard.edu/resources/reports_and_working_papers/foundations-of-lifelong-health/

Health and Early Childhood

Adverse Childhood Experiences and the Lifelong Consequences of Trauma, American Academy of Pediatrics, 2014. Summary article on adverse childhood experiences with an updated reference list.

https://www.aap.org/en-us/Documents/ttb_aces_consequences.pdf

Understanding the Nature and Significance of Early Childhood: New Evidence and Its Implications.

Tim Moore, Murdoch Children’s Institute. 2014 Summarizes the evidence on early childhood development on long-term health and welfare. Includes an extensive reference list.

http://www.rch.org.au/uploadedFiles/Main/Content/ccch/PCI_Tim-Moore_Understanding-nature-significance-early-childhood.pdf

Reframing School Dropouts as a Public Health Issue. CDC, 2007. This paper summarizes knowledge on the health benefits of high school graduation, discusses the pathways by which graduating from high school contributes to good health, examines strategies for reducing school dropout rates with a focus on interventions that improve school completion rates by improving students’ health, and recommends actions health professionals can take to reframe the school dropout rate as a public health issue and to improve school completion rates in the United States.

http://www.cdc.gov/pcd/issues/2007/oct/07_0063.htm

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Effects of In Utero and Early Life Conditions on Adult Health and Disease. P. Gluckman, et al. US National Library of Medicine. 2008. This article explores evidence that a long latency period between an environmental trigger and the onset of subsequent disease while widely recognized in the etiology of certain cancers, is not generally considered in the etiology of other conditions such as cardiovascular disease, metabolic disease, or osteoporosis, but may also affect them. It summarizes many lines of evidence, including epidemiologic data and data from extensive clinical and experimental studies, that indicate that early life events play a powerful role in influencing later susceptibility to certain chronic diseases

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3923653/>

Current Programs in SC:

Nurse Family Partnerships— This program pairs pregnant, low-income women with registered nurses during pregnancy. Nurses make regular home visits through the child's second birthday. This document shows the most recent results for SC.

http://www.nursefamilypartnership.org/assets/PDF/Communities/State-profiles/SC_State_Profile.aspx

Parents as Teachers—An evidence-based parent education and family engagement model serving families throughout pregnancy until their child enters kindergarten. Families receive personal visits typically in their homes from certified parent educators; group meetings; developmental, health, hearing and vision screenings; and linkages with community resources.

<http://scfirststeps.org/wp-content/uploads/2014/10/South-Carolina-Parents-as-Teachers-Affiliate-Performance-Report-2013-2014.pdf>

BabyNet—South Carolina's system of services for infants and toddlers birth to three years of age who have developmental delays or have conditions associated with developmental delays. The program provides services for parents and care givers.

<http://scfirststeps.org/wp-content/uploads/2014/02/English.pdf>

Reach Out and Read—An evidence-based nonprofit program that promotes early literacy and school readiness in pediatric exam rooms nationwide by giving new books to children and advice to parents about the importance of reading aloud.

<http://www.reachoutandreadsc.org/>

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