



# Analyzing the Long-Term Impact of Head Start: The Case for an Integrated Approach to Early Childhood Data in Missouri

## Background: Head Start and the Importance of Longitudinal Data

*“The contributions the child makes to society as an adult can be traced back to their first five years of life.”<sup>1</sup>*

From birth to age five, a child can receive a myriad of services, from those related to health and wellness (mental and physical) to early care and education to special education. One of the most popular early childhood interventions is the Head Start Program, launched in 1965 as part of President Johnson’s “War on Poverty” to provide education, health, and nutrition services to low-income families. Since its establishment, Head Start has served nearly 30 million children and their families. Today, the Head Start Program provides preschool services for over one million children each year across the United States to improve their school readiness skills.<sup>2</sup>

**Table 1: Missouri children by age, income status, Head Start participation and pilot participation**

	Total number of children in the state (2011)	Number of children from low-income families in the state (2012)	Number of children enrolled in Head Start and Early Head Start (2012)	Number of children enrolled in Head Start and Early Head Start from the Pilot Study (2013)
Infants (<age 1)	74,421	30,998	1,298	317
Toddlers (age 1-2)	152,505	60,028	3,137	619
Preschoolers (age 3-K entry)	236,945	103,833	17,319	7529
<b>Total number of children (birth-K entry)</b>	<b>463,871</b>	<b>194,859</b>	<b>21,754</b>	<b>8,465</b>

Sources: US Census Bureau<sup>3</sup>, Kids Count Data Center<sup>4</sup>, Head Start Program Information Report: Enrollment Statistics Support – State Level (Missouri)<sup>5</sup>, Head Start Agencies

At last estimate, Head Start and Early Head Start programs served almost 22,000 Missouri children and families in the 2012-2013 program year (See Table 1)<sup>5</sup>. Table 1 also summarizes the total number of children in the state by age, status as low-income, and Head Start attendance. Despite the large number of children currently enrolled in Missouri Head Start programs, insufficient research and evaluation has left questions regarding children’s long term outcomes and overall program effectiveness largely unanswered. The main difficulty for researchers and policymakers is the discontinuity between early childhood data and K-12 data. State systems have primarily been designed to collect student information through the K-12 school system, including the Missouri Comprehensive Data System (MCDS), the state’s student longitudinal data system maintained by the Department of Elementary and Secondary Education (DESE). However, within the last five years federal funding programs (including the State Longitudinal Data Systems grant

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program, Race to the Top, and the American Reinvestment and Recovery Act) have focused greater attention on early childhood data. Consequently, several states have launched efforts to include more early childhood data in their state longitudinal data systems.

The establishment of a comprehensive longitudinal data system, inclusive of early childhood data, is crucial for educators, administrators, and policymakers to make informed decisions about programs. This is particularly relevant now, as recent budget crises have called into question spending on social programs by federal and state agencies. Through the linkage of data sources, researchers and policymakers could eventually understand the impacts of Head Start on children as they enter and attend Missouri public schools. These data will allow stakeholders to assess both the short- and long-term impacts of Head Start on students' academic performance and social behavioral functioning, and ultimately lead to improvements in programming and curriculum.

The large number of children served combined with the richness of data collected by Head Start agencies piqued the interest of the Missouri Coordinating Board for Early Childhood (CBEC). When Federal funding opportunities were presented in 2011 through the American Recovery and Reinvestment Act, CBEC, through the state Department of Social Services (DSS), was awarded a two-year grant and established a contract entitled "Supporting Head Start Participation in Missouri's Early Childhood and P-20 Longitudinal Data Systems." This policy brief details Missouri's progress toward inclusion of Head Start data in the state's longitudinal data system and concludes with implications for policy and process.

### **Intervention: The Missouri Head Start Data Pilot Project**

The goals of what became known as the Head Start Data Pilot Project were to recruit Head Start staff into the larger Missouri Professional Development (MOPD) System and to include child level data in MCDS, the state's longitudinal data system. Essentially, the aim was to increase Head Start participation in state-level data efforts and create linkages between all of these disparate data sources to create the capability to assess the long-term outcomes of Head Start children.

To fully understand the state's early childhood data landscape, it is important to understand its key players. Several agencies and partners are responsible for collecting various categories of data that, when brought together, paint the overall picture of early childhood programs and providers in Missouri.

- Twenty-seven (27) grantee or delegate agencies are responsible for delivering Head Start services in Missouri. The Federal government has a rigorous monitoring process in relation to the continuing program review and funding of Head Start agencies. Thus, Head Start agencies collect copious amounts of data each year in relation to child level demographics and screeners, family visiting and services, staff training and education, and program curriculum and environment <sup>6,7</sup>.
- DESE collects information on Missouri public school students from pre-Kindergarten to 12<sup>th</sup> grade, including children in state-funded pre-Kindergarten and early childhood special education programs. The data collected by DESE include demographic information, school performance and behavior, school services received, participation in school programs, and much more.
- The OPEN Initiative (OPEN), housed at the University of Missouri's Center for Family Policy and Research, administers the MOPD Registry, which collects demographic, employment, education, and training data about Missouri's early childhood and after-school professionals.
- The Missouri Department of Health and Senior Services (DHSS) is responsible for collecting data about licensed and/or registered early childhood programs in the state and monitoring programs for compliance with licensing regulations.
- DSS collects data about welfare and health program participation (Medicaid, TANF, WIC, SNAP, and Child Care assistance).

- Child Care Aware® of Missouri (CCA) provides a public platform for the distribution of program information to parents to inform their early care and education decisions.

OPEN, CCA, and DHSS partnered to target recruitment of Head Start staff and programs into the MOPD Registry, as 2011 was the first year that Head Start was required to begin participation in the state's training system. Prior to the pilot project, there was no way to determine which sites in the state offered Head Start services and which employees were Head Start employees. Since the completion of the pilot project, to date, the state can now identify 296 active Head Start sites (from 20 of 27 agencies) and 2,758 Head Start employees.

The second goal of the Head Start Data Project was to connect current and historical child-level data collected by Head Start agencies with data collected on the same children by DESE in the MCDS. Each unique child record had to first be matched to a current unique identifier, the Missouri Student Information System Identifier (MOSIS ID) or assigned a new MOSIS ID, before Head Start attendance and enrollment records and program information were transferred into the MCDS and linked with K-12 records.

At the conclusion of the pilot in August 2013, nine agencies had transferred data on Head Start child enrollment and attendance records for 8,465 individual children (see Table 1). Each agency received comprehensive reports that included data related to school indicators including attendance, participation in gifted programs, Individualized Education Plan status, school lunch status, and where applicable, achievement data on statewide assessment scores, beginning in third grade. Additionally, two statewide reports were prepared, one which focused solely on the descriptive outcomes of Head Start children upon public school entry, and another that aimed to compare Head Start children and their outcomes with similar peers in the K-12 system. In August 2013, a stakeholders meeting was convened in Jefferson City, and included participants from 22 of 27 Head Start grantee or delegate agencies, representation from the Missouri Head Start-State Collaboration Office and the Missouri Head Start Association, the Region 7 Office of Head Start, CBEC, OPEN, CCA, DHSS, and DESE. At the meeting, results from the statewide descriptive analysis were disseminated, and response and feedback were solicited from participating grantees and the Head Start community at large.

### **Recommendations for Policy and Process in Missouri**

During the two-year Head Start Pilot Project, stakeholders engaged in extensive high-level discussions and data workgroups, through which recommendations were prepared to inform future work. The Head Start Data Pilot Project provided important lessons for further development of a comprehensive, longitudinal early childhood data system.

- ***It is critical to include a diverse set of partners and stakeholders in the planning and decision processes.*** From the initial grant proposal to the end of the pilot project, the project engaged state departments, institutions of higher education, local Head Start leadership, and statewide Head Start support agencies and associations. It proved critical to have many differing voices and opposing perspectives involved in the policy development processes to ensure all angles were considered.
- ***It is important for everyone to benefit from the collaboration.*** For example, after merging the Head Start data with the K-12 data, researchers produced reports for each Head Start agency. Head Start agencies found these reports to be very useful because they learned for the first time about the progress of their children during their early school years. Creating benefits and adding value to the system for all stakeholders ensures mutual investment in the work.
- ***More guidance is needed from state officials and policymakers.*** State leaders and policymakers in Missouri have not implemented a larger early childhood data governance structure to provide guidance and oversight for broader early childhood data collection and analysis efforts. Governance and quality initiatives are common themes in states with successfully coordinated early childhood data systems, and are central to protecting the confidentiality of the data while producing reliable and consistent analyses. With more guidance through executive order, departmental policies or legislation, state partners could move forward with development of a more coordinated data system.
- ***Financial support is needed for future work.*** The inception of the Head Start data work was based largely on the availability of grant funds that coincided with recommendations from the P-20 data council to further include early childhood data in the MCDS. There are currently no permanent or sustainable funding measures in place to continue the development of the data system or further institutionalize the process for reports and analysis.

Securing funding is a critical step not only for the sustainability of the current work, but also to further grow the system to include more data linkages and allow for more rigorous analysis.

Despite some of the budgetary limitations, the state's continued involvement and participation in state and national longitudinal data efforts, and interest among Head Start agencies that hunger for more data to inform programming, suggest promise for the future of early childhood data coordination in Missouri. With the completion of the first two rounds of transfers and analysis, public exposure to the project has inspired great enthusiasm in stakeholders to coordinate the state's data systems. The pilot project has left the state with a solid data infrastructure to continue supporting these efforts; for instance, DESE developed a State Resource Manager application to help streamline and automate data collection, which will ultimately lead to cleaner, richer data for future analyses. With current funds aimed at supporting the continued coordination of the project, stakeholders at all levels are working to develop a governance structure and institutionalize an annual timeline to aid long-term system sustainability.

#### References:

- <sup>1</sup> Rolnick, A., & Grunewald, R. (2003). Early Childhood Development: Economic Development with a High Public Return. *The Region*. Federal Reserve Bank of Minneapolis.
- <sup>2</sup> Office of Head Start (n.d.). *Head Start Services*. Retrieved November 2013 from <http://www.acf.hhs.gov/programs/ohs/about/head-start>.
- <sup>3</sup> U.S. Census Bureau. Retrieved on June 6, 2012 from: <http://www.census.gov/cps/data/cpstablecreator.html>
- <sup>4</sup> Kids Count National Data Center. "Child Population by Single Age—Missouri, 2011" <http://datacenter.kidscount.org/data/tables/100-child-population-by-single-age?loc=1&loct=1#detailed/2/27/false/868,867,133,38,35/42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61/418>.
- <sup>5</sup> Office of Head Start (n.d.). *Head Start Program Information Report (PIR): Enrollment Statistics Report – State Level, Region 7 | Missouri (2012-2013)*.
- <sup>6</sup> State Longitudinal Data Systems (2012, March). *SLDS topical webinar summary: Head Start and SLDS: Getting to know you*. Retrieved from website: [http://nces.ed.gov/programs/slds/pdf/Headstart\\_and\\_SLDS.pdf](http://nces.ed.gov/programs/slds/pdf/Headstart_and_SLDS.pdf).
- <sup>7</sup> State Longitudinal Data Systems, (2012, November). *About the SLDS grant program*. Retrieved from website: [http://nces.ed.gov/programs/slds/about\\_SLDS.asp](http://nces.ed.gov/programs/slds/about_SLDS.asp).

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