

# Connecting the Dots:

## *Data Use in Afterschool Systems*

March 2016

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*“Collecting and having the ability to analyze data citywide will allow us as a city, as a group of stakeholders, to make informed decisions, set priorities, solve problems and reach a consensus on a citywide strategic plan for out-of-school time. Data drives everything.”*

—Afterschool System Leader

### Introduction

Afterschool programs—programs for children and youth that happen regularly after school on weekdays, weekends, and during the summer—aim to keep young people safe and to foster skills needed to succeed in school and life. As concerns about every child’s well-being and the quality of education in low-income communities have mounted, cities are increasingly implementing strategies to ensure that afterschool programs are high quality and widely available. To this end, a growing number of cities have invested in afterschool systems to coordinate disparate programs and funding streams.

A primary function of most afterschool systems is to develop and maintain a data system, which allows the afterschool system to collect, analyze, and apply data to accomplish its goals. To date, research on data use in afterschool systems has focused more on implementation of technology—that is, management information systems (MIS) and the purposes for which those systems are used—rather than on what it takes to develop and sustain effective data use.

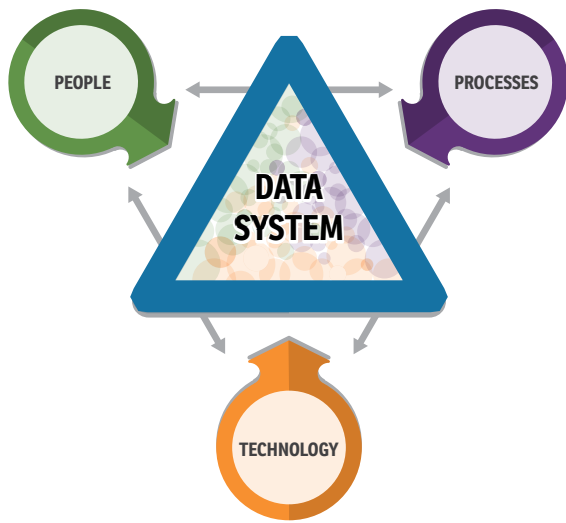
By contrast, findings from a study commissioned by The Wallace Foundation indicate that when it comes to data systems, success hinges on people and processes as much as technology. The study focuses on nine cities that are part of the Next Generation Afterschool System-Building Initiative, a multi-year effort to strengthen the systems that support access to and participation in high-quality afterschool programs for low-income youth. The nine cities are: Baltimore, MD, Denver, CO, Fort Worth, TX, Grand Rapids, MI, Jacksonville, FL, Louisville, KY, Nashville, TN, Philadelphia, PA, and Saint Paul, MN. An interim report titled *Connecting the Dots: Data Use in Afterschool Systems*, produced by Chapin Hall at the University of Chicago, presents early findings from the study on how afterschool systems build their capacity to capture, describe, and improve their practices through their data systems.

**ChapinHall**  
at the University of Chicago

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Figure 1: Aspects of a Data System Framework



Emergent findings presented in the report are based on the initial two years of the study and were generated from an analysis of city documents, site visits, interviews with key stakeholders, observations of selected trainings and meetings related to data use, and attendance at three, cross-city grantee meetings. This report describes how cities invested in the three components that make up a data system—people, processes, and technology—to develop their capacity to use data. The report discusses the current capacity of city afterschool systems to collect and use data to inform their decisions and system-building activities. Additionally, it highlights common strategies for using data, contextual factors that affect data use, and how those working with data systems view the value of data in their work to improve afterschool program quality, access, and systems.

See Figure 2 (back page) for more detail about the components of people, processes, and technology.

## Initial Findings

Developing the capacity to use data depends as much on people and processes as it does on technology. At the time of the report, cities were in various stages of collecting and using data to inform their afterschool system building, improve program quality, and make decisions about the allocation of resources. All three aspects of the data system framework are found in these initial findings.

**The purposes of investing in data systems are consistent and similar across cities.** City afterschool systems seek data about program supply and demand, characteristics of participating youth, program quality, and program

effects on youth. They use data to manage programs, fulfill accountability and contract requirements, make decisions about how to improve program quality, improve the allocation of resources and availability of services in underserved communities, as well as identify children and youth who might need additional services that afterschool programs can provide.

**Context matters.** Data use in cities was shaped by the requirements of funders, political priorities, and the organizational structure of the afterschool systems. Cities that partnered closely with the school districts often were directly influenced in the choice of data collection strategies and use by the goals of the school system.

**Selection of data elements reflects system priorities.** The nine city afterschool systems selected indicators and outcome measures that accurately reflected their goals and were useful and actionable for multiple stakeholders. They continue to refine their measurement strategies to accurately reflect their priorities. Stakeholders in more than half of the cities expressed interest in collecting social-emotional indicators. They felt these indicators were at least as important as, if not more important than, academic measures for assessing the outcomes of afterschool programs. As measures of social-emotional competencies are still being developed and did not easily align with the outcomes sought by school districts or city leaders, it was challenging to incorporate these indicators into their systems.

**Focusing on program quality impacts data use.** Stakeholders in the nine cities invested in processes to improve program quality either through the use of formal assessments designed for that purpose or through the development of standards to guide program practice. Cities were still learning how to use data as part of a continuous cycle of inquiry to improve the afterschool system as a whole.

**Intentional strategies are needed to build capacity and engage stakeholders in data use.** Building the capacity to use data is not an easy or a straightforward process and requires time, patience, persistence, and flexibility. Cities shifted course several times in selecting data elements and technology to collect and manage the data. Professional development activities (concerning data collection/entry, data interpretation, and quality improvement cycles) were vital to developing and supporting a “culture of data use.” City afterschool systems also were learning how to present the data in formats that can be understood broadly and applied to improve program quality and youth outcomes.

**Change is constant.** Cities experienced common challenges along the way. They reassessed their technology plans when their MIS became outdated and was inadequate to meet their data needs. At these junctures, they considered the availability of new technology and the costs of replacing or upgrading their current technology. Other challenges came with changes in city or system leadership and goals and turnover in key personnel. A data system, much like the afterschool system itself, must accommodate and adapt to change.

**Afterschool systems evolve in their ability to use data.** Early stages of data system development focused on identifying purposes for data use and designing and implementing MIS technology, followed by the development of training and other processes around that technology. From there, the use of data for learning and improvement as part of a cycle of inquiry was starting to deepen the commitment to a data-driven approach and guide the growth of the data system.

## Emerging Strategies

Across the cities, the following strategies appeared to contribute to the success of the data system-building efforts:

**Start small.** A number of cities intentionally started small with a limited set of goals for data collection and use, and/or a limited set of providers piloting a new data system, with plans to scale up gradually.

**Provide ongoing training.** Given the high rates of staff turnover at their programs, system stakeholders learned that they needed to provide ongoing introductory trainings in using both the MIS and the data. Providing coaching and developing manuals also helped to mitigate the effects of turnover and to further the development of more experienced and engaged staff.

**Access data expertise.** Expertise came from within as well as outside the organization coordinating the initiative. Cities' systems differed in how they used the expertise of outside research partners. Some cities identified a research partner who participated in all phases of the development of their data systems. Others leveraged the relationship primarily for access to data, analysis, and reporting of data collected by providers. Still others did not engage external research partners but identified internal staff to provide these supports to the system. In any of these scenarios, having dedicated staff with skills in data analytics was key.

## Summary and Conclusion

The Next Generation cities have many purposes for their data systems and varied strategies for achieving them based on the available people, processes, and technology. They assessed needs for data based on the goals of system partners and in many cases, a broader city agenda. In choosing data to be collected, they were attentive to the goals and information needs of a diverse group of providers and other stakeholders. They evaluated the existing data system and identified limitations, costs, and tradeoffs to make decisions about technology that would give users of various levels access to meet their needs. In their system-building efforts, they also established policies, practices, and structures such as working groups and committees to support access to data and effective data handling.

The cities sought to hire qualified staff with both technical expertise and the ability to communicate the value of and expectations for data use to various audiences, including, but not limited to, frontline staff, agency directors, and funders. They invested in training and professional development to improve their capacity to analyze and interpret data. The experience of the nine Next Generation cities suggests that, as important as technology is to system building, most of the factors that appear to facilitate or inhibit data use in city afterschool systems—norms and routines, partner relationships, leadership and coordination, and technical knowledge—hinge on the people and process components of a data system.



Full report available April 2016  
on [www.chapinhall.org](http://www.chapinhall.org) and  
[www.wallacefoundation.org](http://www.wallacefoundation.org)

Figure 2: Aspects of a Data System Framework



## People

Stakeholders (individuals, institutions, organizations) involved in the operation of the afterschool system and the dynamic connections among them

- **Staffing:** Staff time dedicated to the creation and maintenance of the data system
- **Human capital:** Skills, knowledge, or expertise of individuals, institutions, and organizations involved in the creation and maintenance of the data system
- **Roles and functions:** Distribution of responsibilities among individuals, institutions, and organizations for the creation and maintenance of the data system
- **Partnerships:** Formal contracted or documented connections between individuals, institutions, and/or organizations involved in the data system that facilitate coordination, collaboration, or sharing
- **Power:** Individuals, institutions, and organizations who shape the direction, goals or the course of events related to the creation and maintenance of the data system
- **Relationships:** Informal or personal connections between individuals, institutions, and/or organizations involved in the data system that leverage trust or historical engagement to facilitate coordination, collaboration, or sharing

## Processes

Routines, norms, and/or practices that evolve and are repeated over time and include the collection, organization, analysis, interpretation, and use of data to meet the goals and inform the operation of the afterschool system

- **Indicators and tools:** Identifying and refining data elements to include in the system, instruments to collect them, ways in which they will be reported
- **Data governance:** Formalizing and enforcing the standards for data sharing, transfer, reporting, and use, which are aligned with state and federal regulations
- **Training:** Providing initial and ongoing instruction in the collection, organization, analyses, and application of data
- **Data collection:** Gathering data from multiple sources (such as surveys and other data systems)
- **Analysis and interpretation:** Transforming data into usable knowledge
- **Compliance:** Using knowledge to measure progress towards goals for the purposes of accountability
- **Continuous improvement:** Applying knowledge to improve access, quality, practices, and outcomes
- **Communications:** Sharing knowledge with stakeholders in diverse formats that reflect the way in which they use information

## Technology

Means by which data are organized and accessed to inform the operation of the afterschool system including the hardware and software systems, often called Management Information Systems (MIS)

- **Database:** Tool or platform where data are integrated, stored, and accessed and which outputs reports and other usable forms of data
- **Hardware/software (interface):** Tools and protocols used to access and review the data
- **Hardware/software (infrastructure):** Tools and protocols used to store, integrate, and manage the data
- **Data visualization:** Dashboards, reports, and summaries from the MIS to support data use
- **Capital investment:** Funding mechanisms to support the purchase, construction, and maintenance of technology including contracting and compliance structures

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