

# Afterschool Counts!



## *A Guide to Issues and Strategies for Monitoring Attendance in Afterschool and Other Youth Programs*

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## CONTENTS

EXECUTIVE SUMMARY	i
<i>I. Why Track Afterschool Attendance?</i>	1
<i>II. Overview of Effective Strategies</i>	4
<i>III. Using Data</i>	5
<i>IV. Collecting Data</i>	10
Essential and Optional Data Elements	10
Types of Attendance to Track	11
When and How Often to Take Attendance	12
How Program Design Affects Data Collection	12
Ensuring Data Quality	12
Merging Data from More than One System	13
<i>V. Processing Data</i>	14
Technology Needs, Costs, and Complexity	14
Data Entry	14
Cleaning Data	15
<i>VI. Analyzing Data</i>	17
Selecting a Denominator for Attendance Rate	17
Measuring Dosage	17
Interpreting and Comparing Results	18
Using Attendance Data to Assess Demand	19
Reporting Data	19
<i>VII. Creating Capacity for Data Tracking</i>	20
Department of Youth and Community	
Development (New York, NY)	20
Boston After School Enterprise (Boston, MA)	21
Chicago Public Schools (Chicago, IL)	22
<i>VIII. Necessary Resources</i>	23
Staff Time and Capacity	23
Money and Expertise for Technology	23
<i>IX. Lessons and Conclusions</i>	24
Choosing a System	24
Implementing the Process	25
Living with the Consequences	26
Conclusions	26
Appendix A: Interviewees	27
Appendix B: Profiles of Selected Strategies	28
Appendix C: Resources	41
Acknowledgments	42

## **ABOUT THE AFTER SCHOOL PROJECT**

**The Robert Wood Johnson Foundation created the After School Project in 1998 as a five-year, three-city demonstration aimed at connecting significant numbers of young people in low-income neighborhoods with responsible adults during out-of-school time. To that end, the Project focuses on developing: (1) consistent, dedicated revenues to support afterschool programs in low-income communities; (2) an array of developmental opportunities for youth, including physical activities, sports, and educational, social, and recreational programs; and (3) strong local organizations with the necessary resources, credibility, and political clout to bring focus and visibility to the youth development field.**

**After School Project staff provide technical assistance and tools to sites that receive RWJF afterschool grants. In the area of attendance monitoring, the Foundation has a particular interest in helping cities to develop the capacity needed for monitoring youth participation in all programs that occur during nonschool hours.**

## EXECUTIVE SUMMARY

**T**HE PUBLIC PROFILE of out-of-school activities for children and youth has grown dramatically in the last 15 years, along with the number of afterschool programs. With that growth in programming (and, by necessity, funding) came a greater emphasis on accountability. That pressure, in turn, underscored for program directors, funders, and researchers the need for better systems of counting and tracking afterschool attendance and participation.

This guide—based on interviews with people working on the front lines to staff, direct, or evaluate afterschool programs—is intended to raise awareness of the issues and options involved in tracking attendance and participation. It describes the challenges inherent in using, collecting, processing, and analyzing data, and it offers practical examples of ways that program directors and youth-serving organizations are trying to meet the need for attendance data.

Options for collecting data on student attendance range from a pen-and-paper approach to web-based data systems and swipe card technology. The “right” method for collecting, organizing, and analyzing data depends on how program leaders expect to use the data—what questions they need to answer, and for whom—as well as the program’s size, structure, and resources.

### USING DATA

Data on afterschool attendance and/or participation can be used to:

- **Fulfill accountability requirements (e.g., to determine the daily cost per child; verify grantees’ compliance with a targeted level of service; and substantiate reimbursement claims made to city, state, or federal funders)**
- **Monitor the quality and effectiveness of an overall initiative**
- **Evaluate student outcomes—for instance, by comparing attendance data to students’ school performance records to measure the effect of participation**
- **Support program-level planning and management decisions, including how many staff to hire and how to deploy them, how much space to obtain, and how many snacks or supplies to order**
- **Facilitate case management for participants with special needs**
- **Support student rewards, incentives, stipends, and sanctions**
- **Gauge demand for services, overall and for specific activities**
- **Facilitate staff self-reflection, training, and education**
- **Advocate for more funding or for the use of specific strategies**

Examples of all of these uses can be found in Chapter III.

### COLLECTING DATA

Researchers and program directors suggest that the following data elements are essential to collect:

- **Site name (if part of a multi-site initiative or citywide database)**
- **Total number of students enrolled**
- **Total head count per day, week, month**
- **Student names**
- **Individualized student number, such as a school- or district-assigned ID**
- **Age and/or grade in school**
- **Each student's first and last date of enrollment**
- **Each student's demographic information**

Just as there are several types of data to track, there are several ways to measure attendance: (1) by the total number of children who come in the door (average daily attendance, or ADA, for the program overall); (2) by the number of days that each child attends; and (3) by the kinds of activities that children participate in (e.g., homework help, sports, arts). Many programs measure only the total number of children who attend the program. Those that want to understand what low or high ADA rates mean, or to link attendance to specific outcomes, will also record whether an individual student attends on a given day.

Program directors who want to know which program model produces the most impact or is of the highest quality also need to know what students do after they walk in the door. Multi-site initiatives and citywide data collection systems face an additional issue: Will they accept data in multiple formats or insist that each site use the same format so that data quality is consistent? Very few site-based programs have the technical ability to translate data from one system into another, and it may be hard to justify that level of effort.

Program design further affects data collection, because the way in which students move through the day can make one method or level of data collection more appropriate than another. Some design elements to consider:

- **If the program is school-based, do students leave the building between the regular and afterschool day?**
- **Do some activities occur offsite? If so, a centralized sign-in location won't capture data on all students.**
- **Do all students participate in the same activity at the same time, or do groups of students rotate through activities?**

## **PROCESSING DATA**

Electronic processing systems make it easier and faster to analyze and use data later on, but they also carry financial and human resource costs. Choices to make about processing data include:

- **Should you automate the attendance data or stick to a simpler, but perhaps more time consuming, system of hard copy storage and calculations done by hand? The inherent tradeoff: financial cost, investment in staff training, and ongoing commitments of staff time vs. easier data analysis and reporting, greater flexibility, and reduced staff time and effort to create reports and analyses.**
- **If the system is automated, how will you support sites that lack the necessary equipment?**

Examples that address these questions can be found in Chapter V.

Accurate data entry is especially important because erroneous or missing information can distort findings and thus undermine the quality of the database. The most common problems include invalid entries for a specific variable, such as attendance recorded for a date on which the program did not operate, and missing data on a student's demographic characteristics. Other common issues include: Verifying the student's enrollment date, clarifying the dropout date, checking that the recorded dates of attendance were indeed dates on which the program operated, and obtaining a unique student ID number for each participant.

## ANALYZING DATA

Attendance data usually are collected daily but tracked monthly. In other words, at the end of each month the daily data are aggregated so programs can calculate overall enrollment and average daily attendance (for the program and, sometimes, per child). Other useful analyses include:

- **Number of days that each child attended**
- **Individual children's attendance rates**
- **Duration of enrollment—the average number of weeks or months that a child remains in the program and whether a child or group of children attends for more than one enrollment period (i.e., semester or year)**
- **The total number of children served during the year, versus the number who attend for a specified duration**
- **Maximum and minimum number of children served on any given day**

The attendance *rate* can be calculated in several ways. Some programs base their analysis on the percent of available days that an enrolled child (or group of children) actually attended. Others interpret average daily attendance as the number of students present in a given site, on an average day, over the course of a month.

Some programs also measure “dosage,” which refers to the level of exposure to a program or activity that a child receives. Students who attend for more hours or days are presumed to receive a higher dosage than those whose experience is more limited. Dosage is most relevant for programs that seek to show that participation in an afterschool program produces specific outcomes. The main challenge here is to establish a standard for the minimum dosage level needed to produce the desired results. If one measures solely the percent of available days of service that a child or group attends, and the number of available days is very small, interpretations of participation might be falsely high. Combining the duration of a child's attendance with his or her attendance rate provides a better measure of dosage.

The final steps in analyzing data involve interpreting and comparing results. Some important questions to consider include:

- **Are students required to attend every day that the program operates and stay for the full session, or are they allowed to come and go at will?** For a drop-in program it's fine if the data show that students don't stay for a full session, but for a more structured program—especially one with academic goals—that finding suggests a problem.

- **Is the program offered every day of the week?** In order to reach conclusions about exposure, you need to know how many hours per day and week the program operates.
- **How are certain services defined?** For initiatives that aim to increase the number of afterschool slots available to youth, for instance, how does one define “new” or “expanded” services?
- **Are there competing activities that prevent children from attending?** A survey or interviews may be the best way to understand the impact of contextual factors on attendance patterns.

## CREATING CITYWIDE CAPACITY FOR DATA TRACKING

A few cities and school systems are developing data systems that span a variety of youth-serving programs. Most are still evolving, so it is difficult to find full-blown models ready for replication. However, Chapter VII of this guide features three efforts that illustrate some promising attempts to address the challenge.

The Department of Youth and Community Development (DYCD) in New York City is building on the state’s Results-Oriented Management and Accountability framework to create a Web-based system for linking the participation of youth and adults in specific afterschool activities to outcomes. Currently, outcomes are limited to program attendance. As the system moves forward, program attendance will continue to be tracked but will be monitored only to determine whether a program is serving the projected number of children. The system will be piloted at the city’s Beacon Schools. All DYCD contract officers will be trained to use the database to generate reports for funders and other stakeholders.

Building Boston’s After-School Enterprise (BASE), supported by The Robert Wood Johnson Foundation, is developing a citywide data system that will provide up-to-date information on afterschool supply and demand, resources for parents and service providers, and state-of-the-field reports. BASE staff approached city agencies and intermediary organizations that already compile information about individual sites and asked them to cooperate in creating a single data collection tool. That instrument, currently in development, will track broad program-level data such as type of service(s), enrollment capacity, actual enrollment, participants’ demographic characteristics, staffing configurations, and funding streams.

In 2002-03, the afterschool planning division and the budget office of Chicago Public Schools (CPS) began working on a citywide system for tracking attendance in afterschool programs. The effort was driven by the need to document the number of afterschool participants eligible for TANF reimbursement and by concerns about preserving the programs with heaviest usage during a time of budget cuts. The Web-based afterschool data system builds on two bases: CPS’s system for tracking teacher payroll and an online system created by the city’s summer jobs initiative for youth. Data are entered at each afterschool site by the school’s payroll clerk, who has only to enter a student’s identification number to trigger the underlying school database and find the child’s name and vital information.

## NECESSARY RESOURCES

What does it take to develop the data systems described in this guide? Staff time and capacity for data activities, and money and expertise for technology. Typical costs for a data system include:

- **Purchase and installation of onsite computers, if not already available**
- **Development or purchase of a management information system (MIS)**

- **Training for the staff who will collect and/or enter data**
- **Internet access**
- **For swipe cards, at least one scanner and a serial connection**
- **Purchase or lease of a software package**
- **Customization of the MIS software, if desired**
- **Expertise to analyze and interpret the data (e.g., using statistical software or reports generated by the systems)**

Software costs often vary, depending on how many sites (or, in the case of swipe cards, classrooms) are involved and how much customization is required to meet the program's information needs. (Typical costs are presented in Chapter VIII).

## LESSONS AND CONCLUSIONS

Although data needs vary from program to program, the following lessons apply to most systems:

- **Keep it simple.** If the program doesn't really need lots of bells and whistles, opt for something streamlined and easy to use.
- **Make sure the people who are directly responsible for data collection play a role in designing the system.** Frontline program staff can give system designers a realistic sense of what data can and can't be collected.
- **If you want to link afterschool attendance to educational outcomes, you'll probably need to establish a data partnership with the school district.** Agreements on what data will be provided, how, and with whom, pave the way for data sharing.
- **Build trust for how the data will be used.** Make an effort to convince people that they need good data to strengthen their programs and communicate their successes.
- **Be consistent in requiring that sites submit data, but be as flexible as possible in how they collect and submit the information.** Don't sacrifice standardization, however, because that will jeopardize your ability to compare across sites.
- **Urge sites to collect data daily.** Don't wait until you need to generate a report, and don't try to reconstruct data retroactively.
- **Take time to troubleshoot data discrepancies.**
- **Create a mechanism for addressing data collection issues, such as a committee or online troubleshooter.**
- **Think creatively about the resources available to you for implementation.** Are there school staff or equipment that can be put to use with minimal effort? Is there another program with an existing data system that your program can piggyback onto?
- **Commit to the goal of managing data and keep pushing toward it.** That often means keeping key players motivated to stay at the table.
- **Create incentives for collecting and entering data.** Some programs require instructors to turn in their attendance sheets before they can be paid, and at least one state links funding for afterschool education and safety programs to average daily attendance.



Some of the people interviewed for this guide had struggled to put tracking systems in place, sometimes trying several options before finding a system that worked. But they all understood the importance of not being daunted by the challenges. Unfortunately, there is no such thing as a flawless data system or a step-by-step recipe for choosing a system, because of the great variation in program models, capacities, and data needs. But the lessons outlined above and the examples profiled in the guide offer a starting point. Start small; you can always build on the system. Keep it efficient and simple. Focus on how the data will be useful to you and your program staff—to improve program design or management, perhaps, or to fulfill accountability requirements. And don't be intimidated by the sometimes obscure language of technology and analysis. The important thing, experts agree, is to jump in and give one of the methods a try.

## Why Track Afterschool Attendance?

OVER THE LAST 15 YEARS, the number of youth-serving programs in America that operate during nonschool hours has more than doubled.<sup>1</sup> At least two-thirds of public schools now offer optional afterschool programs.<sup>2</sup> There are many reasons for this growth, but among the most compelling is the belief that attendance in afterschool programs matters to the healthy development of children and youth.

Research has linked participation in such programs to positive academic outcomes, “as measured through test scores, absenteeism, school dropout rates, homework completion, and school grades”; to “multiple aspects of youth’s friendships, including the number of friends, the quality of those friendships, and who those friends are”; and to mental health, including “fewer feelings of loneliness and depression and less problem behavior.”<sup>3</sup> Research also shows that the level of participation in an afterschool program is directly related to improved student outcomes, including higher school attendance and achievement on standardized math and reading tests.<sup>4</sup>

The growth in afterschool programs has increased public pressures for accountability, with student attendance and participation often cited as an indicator of a program’s success. (See the box on p. 3 for definitions of “attendance,” “participation,” and other terms). The increased attention to data, in turn, is prompting efforts to find more universal, comprehensive, and statistically valid systems for tracking afterschool attendance.

Knowing how often children attend a program or specific activities helps program directors understand what “dosage” of participation their

program generates and what dosage is needed to produce intended results. High or low attendance figures may suggest high or low program quality and give directors insight into needed improvements. And fluctuations in attendance patterns may offer insights into staffing and programming that will help directors make the best use of limited resources.

**“The question of who is participating, and how often, is important for good practice, because it enables [staff] to choose content and instruction that will retain participants. It’s important for accountability, especially to funders whose contributions are tied to attendance. And it’s important to researchers, so we can answer questions about program quality and explain patterns in program utilization.”**

—Elizabeth Reisner, Evaluator, Policy Studies Associates

Program funders increasingly require attendance data as a form of grantee accountability or to qualify for reimbursements from city or federal funding streams. Some, like The Robert Wood Johnson Foundation, also see program-level attendance data as a first step toward building a citywide, cross-program database that can yield useful information about youth experiences and opportunities (see pp. 20–22). And, on the most practical level, competition for limited resources among nonprofit organizations and public agencies has increased the need for data on program quality and results. Yet program directors and staff sometimes avoid monitoring attendance because of the time commitment, the cost, and the “intrusiveness” of taking roll (which makes

1 DeAngelis & Rossi, 1997. Cited in Northwest Regional Educational Laboratory (1999). After school programs: Good for kids, good for communities. Retrieved August 18, 2003 from <http://www.nwrel.org/request/jan99/article4.html>.

2 Belden, Russonello, & Stewart Research and Communications (2001). Principals and after-school programs: A survey of preK-8 principals. Washington, DC: National Association of Elementary School Principals. Cited in National Institute on Out-of-School Time 2003 Fact Sheet. Making the Case: A Fact Sheet on Children and Youth in Out-of-School Time. Retrieved August 18, 2003 from [http://www.niost.org/publications/Factsheet\\_2003.PDF](http://www.niost.org/publications/Factsheet_2003.PDF).

3 Simpkins, S. (2003). “Does youth participation in out-of-school time activities make a difference?” In *The Evaluation Exchange IX*(1). Cambridge, MA: Harvard Family Research Project.

4 Welsh, M.E., et al. (2002). Promoting learning and school attendance through after-school programs: Student-level changes in educational performance across TASC’s first three years. Washington, DC: Policy Studies Associates. See also Huang, D. et al. (2000). A decade of results: The impact of the LA’s BEST after school enrichment program on subsequent student achievement and performance. Los Angeles: UCLA Center for the Study of Evaluation, Graduate School of Education & Information Studies.

the afterschool program seem more like the school day).

This guide is intended to raise awareness among program directors, funders, policymakers, and researchers of the issues and options involved in tracking attendance and participation in out-of-school activities. It both describes the challenges inherent in data tracking and offers practical examples of ways that program directors and youth-serving organizations are trying to meet the need for attendance data.

We hope that the guide encourages people to track attendance data despite the challenges—and that greater use of attendance systems at the program level will ultimately lay the groundwork for citywide systems that track young people's activities.

The information presented here comes primarily from interviews with people working on the front lines to staff, direct, or evaluate afterschool programs. We sought information from sources at many of the major, national afterschool initiatives as well as at individual, small-scale programs and within city agencies (see Appendix A).

We profiled some sites in extra depth, based on:

- **Their ability, collectively, to represent the major options for attendance tracking and analysis that are available to afterschool programs of various sizes and resources;**
- **Their ability to illustrate experiences and program factors that are common to most sites;**
- **Their use of techniques that are relatively easy to administer and portable to many settings; or**
- **Their use of innovative approaches to foster widespread data collection and use.**

Those profiles are contained in Appendix B. Throughout the guide, we also include examples from programs whose conditions or practices are somewhat unique, are still in the early stages of development, or are more relevant at the cross-site level than for individual programs.

Chapter II of the guide briefly outlines the variety of methods for monitoring attendance

that are available to afterschool programs, which are detailed in subsequent chapters. Chapters III through VII describe issues and solutions involved in using, collecting, processing, and analyzing data and in building citywide capacity for tracking attendance across programs. Chapter VIII identifies resources necessary to support data systems and analysis. Chapter IX suggests lessons and conclusions that can guide readers' attempts to establish their own attendance monitoring systems. Appendix A lists the individuals interviewed for the guide. Appendix B profiles four sites and the data systems they use. Appendix C lists resources for more information.

## DEFINITIONS

*Note: Information about program attendance falls into two basic classes: counts and rates. Attendance figures can also refer to the afterschool program as a whole or to the behavior of individual students.*

**Afterschool programs:** Youth-serving programs that operate during nonschool hours. This guide uses the term broadly, to include programs that operate before and after the school day, on weekends, and during the summer (comparable to the term “out-of-school time”).

**Attendance:** Student presence or absence at an afterschool program. Attendance can be measured in a variety of ways (e.g., daily, weekly, monthly; by activity or for all activities combined; by individual child or for all enrolled students as a group). Attendance offers a snapshot of participation at one or several points in time, focusing on whether the organization has attained its service goals, while participation (defined below) focuses more on the over-time experiences of individual children. The individual student attendance rate usually is derived from the number of days a student attended a program during a year, divided by the number of days it was possible for that student to attend (with the calculation repeated for each student). Or, one might divide the number of days a student attended during a year by the number of days the program was open that year (which requires less effort than determining the number of days possible for each student but may result in deflated attendance rates, because students who were not enrolled for the entire year are counted as absent even for days they were not enrolled in the program).

**Average Daily Attendance (ADA):** A type of count commonly used by afterschool programs and school systems to refer to the unduplicated count of students attending a program each day. This count is averaged over a specified period of time (a week, month, specified “count” days, or the full school year). Project managers find ADA useful for documenting the magnitude of their services, the number of children served, and the hours and

days of services provided. ADA also can help determine the number of staff needed to maintain the targeted staff-to-student ratio, whether larger or smaller facilities are needed, and whether staff are allocated to the appropriate grade levels. ADA can be calculated in various ways, and the denominator used for calculation has implications for the findings’ accuracy (see p. 17).

**ADA rate:** This rate can be calculated in several ways, depending on the denominator used. One approach is to divide ADA by the number of students enrolled, which reveals the proportion of enrolled students who attend on a typical day. This rate can be interpreted as an indication of how attractive the program is to students and their parents. The ADA rate can also be calculated by dividing the ADA by the enrollment target set by the program’s mission or funders. This calculation helps to gauge whether the program is serving the intended number of students. A site with an ADA rate smaller than 1.0 is serving fewer students than it is funded to serve, while a site with an ADA greater than 1.0 is exceeding its goal.

**Data elements:** The categories of student information entered into a database, such as name, student ID number, birthdate, date of enrollment, etc.

**Dosage:** The level of exposure to a program or activity that a child receives by attending; students who attend for more hours or days are presumed to receive a higher “dosage.” Dosage is most relevant for programs that seek to link levels of exposure to specific outcomes.

**Enrollment:** The number of children signed up to attend an afterschool program. Enrollment figures are not always accurate indicators of actual attendance or participation.

**Participation:** Active student involvement in an afterschool program. While *attendance* is primarily an administrative function, *participation* offers a glimpse into how children and youth view and value the program. Participation can be measured at the individual student level or for subgroups of enrolled students (e.g., all girls), and it often requires measurement of attendance in specific activities. A common way of analyzing participation is to examine patterns over time.

## Overview of Effective Strategies

**O**PTIONS FOR COLLECTING DATA on student attendance fall on a continuum from systems that use technology only minimally to those that use it extensively. For example:

- In the traditional pen-and-paper approach, someone—usually an instructor, program assistant, or parent volunteer—makes a mark on a hard copy of the enrollment roster for every student who attends on a given day. Alternatively, students may sign in every time they attend, and the sign-in sheets are collected daily. Some programs simply collect these hard copies “for the record” but don’t use the data because it takes too long to organize and synthesize the information by hand. Or, a program assistant, school clerk, or administrator at the program’s central office may enter data that are collected manually into an electronic database, such as a simple electronic spreadsheet file.
- Programs that aggregate daily attendance data by the week, month, and/or year need to enter their data into some kind of database that allows the numbers to be combined and manipulated. The simplest of these is housed on a personal computer (PC). Several types of software support databases that range from relatively simple (e.g., Excel or Microsoft Access) to complex (e.g., KidTrax, YouthServices.net). The capacities and limitations of various software are discussed in Chapter III and in the site profiles and examples.
- Web-based systems offer users more choices and flexibility in analyzing and reporting data, and they are a growing trend in afterschool data tracking because they make program-level data available to a broader audience, such as the entity that manages multiple sites. Because these systems link electronically to a central database, program sites do not need to purchase expensive software (although they do require access to a computer and the Internet, and licensing costs are usually incurred). The major systems that are marketed to afterschool programs (YouthServices.net, QSP, and KidTrax) customize the system’s data elements, level of analysis, and reporting formats to the needs of each customer.

- Programs that want to collect detailed data with minimal burden on staff sometimes use swipe cards. Students receive ID cards with individual barcodes, which they present to electronic scanners as they enter and exit each day. Some programs also require students to swipe their cards as they enter and exit each activity. The data can be stored on Web-based systems or in stand-alone PCs. This system requires the purchase of proprietary software (e.g., KidTrax) and at least one scanner and computer per site, so it is the most resource-intensive option.

The “right” data collection method for a given program depends on several factors: What questions are the data expected to answer, and how precise do the answers need to be? How large is the program (i.e., how many children need to be tracked)? How much money and staff time are available for data tracking, and how important is it for the program to invest resources in the activity? (Invest too little in data collection, and the effort will not produce the information needed for accountability reports or program improvement. Invest too much, and scarce resources may be wasted.) Do staff have the necessary expertise? Do activities occur away from the program site? Do children leave the building between the school and afterschool day? Do children move individually or as a group from one activity to the next? How often do activities change? The relevance of these factors is discussed in Chapter III.

Strategies for tracking data from multiple programs, at the citywide level, are different from those available to programs. They require more complex databases that can accommodate multiple identification codes for each child, variations in the way that programs define participation, and, in some cases, confidentiality protections when data are shared across programs. Some of the options profiled in this guide, however—especially the Web-based systems YouthServices.net and KidTrax—illustrate monitoring and reporting features that would be similar at either the program or citywide level.

**M**OST PEOPLE THINK about data in this sequence: collecting, processing, analyzing, and finally using. But thinking about how you will use the data first helps to answer questions about what data you need to collect and how you might obtain, organize, and analyze the information. In fact, some evaluators recommend not collecting attendance data until you can describe how the data will be used, because your goals for using data will determine the complexity of the system you choose, the degree to which frontline staff buy into the need to take attendance, and whether you will need to:

- **Monitor attendance (the number of bodies coming in the door every day, week, or month), participation (the frequency, or level of intensity, with which they attend), or both;**
- **Know only the aggregate number of attendees or also the attendance of individual children;**
- **Collect data on the types of activities children attend (and, if so, whether you need the data for every day, every week, or every month and whether you should monitor the activities attended by all children or by each child individually); and**
- **Merge your attendance data into a broader database, such as one maintained by the school system or city youth authority, or use them only for analysis within the program.**

Data on afterschool attendance and/or participation can be used for the following purposes:

*To fulfill accountability requirements.* Program funders typically use attendance data to determine the daily cost per child; to verify grantees' compliance with a targeted level of service (the "utilization" rate); and to substantiate reimbursement claims made to city, state, or federal funding streams.

For example, The After-School Corporation (TASC), which sponsors 242 school-based projects (187 of which are in New York City and are required to submit attendance/enrollment data), is reimbursed by three different city agencies, based

on attendance figures. In order to prepare invoices, TASC needs the names and school identification numbers of the children who attend TASC-sponsored programs each day. In the case of one funder (the city's Human Resource Administration, which manages child care funding for parents in welfare-to-work programs), TASC must cross-tabulate its attendance data with various city databases to determine which children are eligible for reimbursement. TASC also uses attendance data to determine how much money to disburse to each site. A TASC program officer examines the data collected from sites to monitor the sites' performance in meeting their enrollment and attendance targets. At mid-year and between each contract year, TASC adjusts grants up or down to match the number of participants actually being served on a daily basis, using funding formulas that have evolved over time.

**"Data in and of [themselves are] not that interesting or useful. It's what you do with data that matters."**

—Eric Bruns, Evaluation Coordinator,  
Baltimore's After-School Strategy

*To monitor the quality and effectiveness of an overall initiative.* LA's BEST, which encompasses 117 afterschool programs in the Los Angeles Unified School District, uses data on participants' start and end dates and their daily participation to examine variations in attendance patterns across sites. When combined with an internal performance monitoring system, the administrators can begin to understand the relation among program implementation, program outcomes, and student attendance.

One of the goals of Team-Up for Youth, an afterschool youth sports intermediary in the San Francisco Bay Area that is funded by The Robert Wood Johnson Foundation, is to "level the playing field" for underserved populations, including girls and low-income children. That initiative uses data on participants' demographic characteristics to determine whether its goal is being met.

The Safe and Sound Campaign in Baltimore,

**“High attendance is a good preliminary measure of program quality. To some degree, students and families vote with their feet. A high attendance rate is a necessary but not sufficient condition, however. It is not an end in itself.”**

—Richard White, Evaluator, Policy Studies Associates

whose afterschool programs serve about 4,000 K-12 students every day, combines attendance data with feedback from staff and youth to test the theory of change for its multi-site afterschool strategy. The theory assumes that the initiative “will increase utilization, increase the number of afterschool slots available [i.e., create new openings], and increase the quality of the funded programs,” explains Evaluation Coordinator Eric Bruns. Using data on attendance rates, “we have found that, in certain areas, quality is immensely improved. However, utilization [rates] and [the number of available] slots have increased only modestly. The increase is encouraging, but there’s still work to be done.”

*To evaluate student outcomes.* Both the TASC and Baltimore Safe and Sound initiatives compare attendance data to students’ school performance records to measure the effect of participation on student outcomes. Policy Studies Associates, the firm evaluating TASC, investigates whether students who attend the afterschool program frequently have better school outcomes than those who attend irregularly or not at all, including better test scores and school attendance. Safe and Sound evaluators look primarily for a relationship between afterschool attendance and achievement test scores (which they have not yet found).

Several school districts around the country use Quality School Portfolio (QSP), a free tool provided by the National Center for Research on Evaluation, Standards, and Student Testing (CRESST), to match students’ attendance in afterschool programs to test scores, classroom performance assessments, parent involvement, and teacher experience level. (QSP does not track attendance on a daily basis, but it will store cumulative attendance data.)

*To support program-level planning and management.* Attendance data can help managers determine how many staff to hire, how much space to obtain, how many snacks or supplies to order, and so on. Information on attendance by grade level or age group also can help managers figure out how to configure staff and other resources. For example, if the program serves grades K-8 but attendance data show that half the students who attend on a typical day are in grades 3 or 5, then it makes sense to concentrate resources on those grades.

Citizen Schools, which in 2003-04 served about 1,500 young people (age 9-14) at 20 afterschool sites in Boston, the surrounding area, and selected other cities, monitors attendance closely during the first three weeks of the school year.

#### **USING ATTENDANCE DATA TO ASSESS PROGRAM AND INITIATIVE QUALITY**

**To monitor quality at the program level, contract managers at the Family League of Baltimore City use attendance data to verify whether Safe and Sound sites are reaching the number of students they proposed to serve. “We also use the data to look at our strategy as a whole,” says evaluator Eric Bruns. “What are the patterns of high and low utilization across programs? What are the characteristics of programs [in each category]? Some things suggested by the data need to be investigated further—such as whether it’s true that programs located in schools have different utilization rates than programs located in community centers.”**

**Safe and Sound also cross-tabulates attendance and enrollment data with budgetary data to learn the cost per participant. “We compare that [information] to national norms in the field to try to keep our strategy on track,” Bruns says. “That’s important right now because the [initiative] has had significant changes in the amount of overall funds available, so they have to make hard decisions about who gets funding in the future.”**



The program's administrators and site directors use that information to make staffing adjustments across campuses. Using SPSS statistical software, Citizen Schools also examines the data for differences in attendance between subgroups of participants. Do older students (seventh- and eighth-graders) have higher or lower attendance rates than fourth- through sixth-graders? Are rates increasing or decreasing? Do girls attend more often than boys? The information gleaned from those analyses guides decisions about what activities to offer.

*To facilitate case management.* The after-school drop-in center operated by the P.F. Bresee Foundation, in East Hollywood, Los Angeles, uses magnetically encoded swipe cards to track every activity a participant engages in each day. Bresee's intake process is extensive, so the database also includes a wealth of information about participants' school activities, hobbies, special interests, career goals, medical needs, and other factors. When administrators examine the attendance data, they also consider these other variables. "If the youth isn't improving, is it because [he's] not attending consistently? Or are there learning disabilities?" asks (former) Associate Director John Wolfkill. "We can then target intervention to specific youth."

Similarly, individual attendance data trigger efforts by Citizen Schools leaders to identify problems in the program or at home. "If campus directors don't have 80 percent attendance, we troubleshoot with their supervisor," says (former) Research Director Charlie Schlegel. "That quickly becomes a conversation about specific kids' issues and what can be done to follow up with parents and teachers."

*To support student rewards, incentives, and sanctions.* The Bresee Foundation uses afterschool attendance data to support incentives for participating in educational activities. Every activity that has educational value is worth a certain number of points. When a participant signs into the activity using his or her swipe card, the attendance is

#### **USING ATTENDANCE DATA TO CREATE PARTICIPATION INCENTIVES**

**Youth who attend the Bresee Foundation's afterschool program earn points for participating in educational activities. Completing a computer tutorial is worth 300 or 400 points, for instance; a half-hour of home-work earns about 50 points.**

**Students receive a statement (which looks like a bank check) of the points they earn for each designated activity, and it is signed by the staff overseeing the activity to verify that the student not only attended but fully participated in the activity. Students deposit their "checks" at Bresee's "Youth Bank" and enter the amount into the program's database. Points are redeemable for school supplies, food, candy, soccer balls, PlayStation games—even electronic equipment. A can of soda from the center's store costs 50 points, roughly the same as a half hour of home-work; a Sony PlayStation recently "sold" to a high-attending student for 20,000 points.**

**Bresee offers a financial literacy class, and instructors use the attendance-based incentive system to make points about saving and building assets. Youth can also learn about credit by obtaining "loans," with automatic payback through the point system.**

recorded in the database. Upon completion of the activity, points are awarded and later recorded in the student's file. He or she can then redeem the points for goods and services (see box above).

After School Matters, which operates afterschool programs at 35 sites in Chicago with support from The Robert Wood Johnson Foundation, offers apprenticeship programs in the arts, technology, communication, and sports (for which students are paid a stipend) and drop-in clubs (which do not carry a stipend). "We have to be sticklers about attendance because we're paying the kids," notes Executive Director Nancy Wachs. Teachers at the school sites enter attendance data into an online database, and school clerks use the information to generate students' paychecks.



*To help gauge demand for services (in general and for specific activities).* Attendance data are a quick indicator of how attractive a program is to children and parents. “If [staff] plan a special activity and attendance doesn’t go up, chances are the activity didn’t work well,” observes Richard White, an evaluator at Policy Studies Associates. Directors can also use attendance data to identify services that cause a drop-off in participation. “Even without data on specific activities, if they know a big performance or event is going to occur in February but the attendance rates in January and February aren’t any different from other months, then you can assume the event didn’t serve as an attendance draw,” White says. Or, if the director knows a group of children is working with a specific teacher, and that group’s attendance rate is lower than that of another group working with another teacher, the first teacher’s practices may need improvement.

At Citizen Schools, where programming changes weekly, Schlegel compares the attendance rate on days when students work on academic activities with days when they take field trips. He uses data on attendance in special three- and four-week programs to figure out what schedule is best for attracting students. Annually, Citizen Schools looks at how many students chose to continue in the program, overall and at an individual level. “We’ve learned that retaining kids throughout a whole year and across years is important...to their academic growth and to our impact,” Schlegel says. “Something like 80 percent of kids who were with us at the start of year were still with us at end of year, and we only know it through attendance tracking.”

*For staff self-reflection, training, and education.* TASC staff examine weekly attendance reports for each site to see if the individual project

CHECKLIST FOR UNDERSTANDING DATA NEEDS	
IF YOU WANT DATA SO YOU CAN...	YOU MAY NEED TO...
■ Fulfill the legal responsibility of keeping participants safe	<ul style="list-style-type: none"> <li>✓ Collect data on the time each student arrives and departs</li> <li>✓ Collect attendance data on each enrolled student, not just the group as a whole</li> </ul>
■ Create payroll records (e.g., for participants who receive stipends) or award incentives	<ul style="list-style-type: none"> <li>✓ Collect data on the specific activities students participate in (if some are paid and some are unpaid) and the number of hours worked</li> </ul>
■ Describe program operations	<ul style="list-style-type: none"> <li>✓ Collect student demographic data</li> <li>✓ Collect data on instructors’ capacities</li> </ul>
■ Evaluate participant outcomes	<ul style="list-style-type: none"> <li>✓ Collect student-level attendance data</li> <li>✓ Forge agreements for data sharing with the school system</li> <li>✓ Obtain parent consent for data sharing</li> <li>✓ Establish a unique identifier for each student that corresponds to the one used by the school system</li> </ul>
■ Analyze the “dosage” (frequency and/or intensity of services) that participants receive	<ul style="list-style-type: none"> <li>✓ Collect data on when each student enrolled, how many hours and/or days s/he attends, and (possibly) in what specific activities s/he participates</li> </ul>
■ Target services to specific sub-groups of the student population	<ul style="list-style-type: none"> <li>✓ Collect student-level attendance data</li> <li>✓ Collect data on demographic characteristics</li> </ul>

is reaching the program's standards. If a site is not reaching its attendance target, TASC program officers will talk with the site director or coordinator about possible barriers and solutions. Rahan Uddin, administrator of TASC's database and coordinator of its help desk, also uses attendance data to help site-based staff evaluate their programs. For example, if a program director thinks attendance is meeting the target but the data show it is actually much lower, Uddin encourages the director to examine the detailed report of attendance by date. "They may be getting 200 kids on Monday and Tuesday but by Friday they're only getting 100," Uddin explains. "That tells you to schedule some different activities on Fridays." Some site staff also use the data to determine which activities are most popular with students (a data component that is optional in the TASC system).

*To advocate for more funding or for the use of specific strategies.* Baltimore's Safe and Sound Campaign uses geocodes to array afterschool attendance data and program capacity by U.S. Census tract, which enables leaders to identify which neighborhoods have (and are filling) the most afterschool slots. Then, they compare those data to information on the risks faced by young residents of each neighborhood. Using the data in that way helped Safe and Sound obtain a \$1 million grant to serve children in several specific geographic areas.

Similarly, TASC leaders present attendance data at conferences to generate support for the practice of universal enrollment (i.e., opening the program to all students in a school), to funders as an argument for program expansion, and with principals at potential sites to illustrate the high demand for afterschool services in specific neighborhoods.

Despite these examples of how attendance data can be used, observers agree that many afterschool programs don't use the data as effectively as they might. The key, says Bresee's Wolfkill, is that attendance data "have to help you improve your program. Don't just have data for data's sake."

**T**HE MOST COMMON METHODS of collecting attendance data are the simplest: sign-in sheets or roster check-offs, usually posted at the front door but not in every classroom or activity. “It’s basically a record of students’ presence or absence for the day,” explains Richard White of Policy Studies Associates (PSA), who evaluates the TASC afterschool program, including those funded jointly with the 21st Century Community Learning Centers program. “Most of the programs I’ve encountered try to collect it by the day, not by reflecting back on the week or month.”

The main issues involved in collecting data include:

- **Concerns about the reliability of data.** If students are allowed to sign themselves in, there’s always a chance that a truant student will be marked present by his or her friends or a student will attend but fail to sign in. Or, a busy staff person may fall behind on the daily records and end up entering several week’s worth of daily records retrospectively.
- **The administrative burden on program staff.** “It’s not so hard to take attendance, but at some point data have to be entered into the computer,” says researcher Carolyn Marzke. “Lack of expertise about data and technology at the program level can make that difficult.” The data intake process may be especially daunting for programs that have no automated record of basic student data. “At some point, they are going to have to do data entry,” acknowledges Ananda Roberts, president of the firm that sells KidTrax software. “We’ve found it takes five to seven minutes [to enter intake data] per child, for someone with average skills. You can enter 450 to 500 kids in a 40-hour work week.” Another system, YouthServices.net, helps users by generating printable registration forms, templates, and checklists to help with data intake.
- **Managing overlapping data requirements.** Most programs receive money from more than one funder, each of whom has a different set of data definitions, categories, and reporting requirements. Several large-scale programs are seeking ways to merge the requirements into a single set of data collection forms and reports.

As program directors sort through these issues, several overarching questions emerge: Which data elements are essential, and which are optional? What types of attendance should be tracked? When and how often should attendance be taken? How does program design affect data collection? How can data quality be ensured? How can data from more than one management information system (MIS) be merged?

## ESSENTIAL AND OPTIONAL DATA ELEMENTS

Complex data systems are harder to “feed” and maintain than simple ones, so it’s best to keep data collection as simple as possible. At the same time, you don’t want to forgo collecting data that you’ll need later to draw conclusions about your program. Complex programs like the San Francisco Beacon Initiative, for instance, which offers myriad activities in health, education, youth leadership, arts, and recreation to more than 5,000 children and youth at eight sites, must collect an array of data to satisfy their stakeholders’ special interests.

**“I don’t think there’s any magic set of data that you need. What you collect depends on what project leaders, the project sponsor, and/or evaluator wants to know.”**

—Richard White, Evaluator, Policy Studies Associates

Researchers and program directors suggest that the following data elements represent a good minimum standard:

- **Site name (if part of a multi-site initiative or citywide database)**
- **Total number of students enrolled**
- **Total head count per day, week, month**
- **Student names**
- **Individualized student number, such as a school- or district-assigned ID**
- **Age and/or grade in school**
- **Each student’s first and last date of enrollment**
- **Each student’s demographic information**

The need for demographic data varies depending on the program's target population. If the program is supposed to target students who are having academic difficulty, low-income children, or youth with a particular race/ethnicity, the system should collect data on those characteristics. For example, the TASC program, which aims to serve all of the children in its host schools, must collect data on participants' race, age, and gender to know whether sites are attracting (or failing to attract) a particular subpopulation. Similarly, programs in cities with rapidly changing demographics, such as San Francisco's Beacon Initiative, want to know about their participants' linguistic and ethnic backgrounds so they can provide culturally relevant activities.

Start and drop dates are essential for calculating attendance rate across an entire year. "Some kids don't start at the beginning of year, or they leave the program before the end of year," explains Christina Russell, a researcher on the TASC evaluation. "If those factors aren't accounted for, it could suppress your attendance rate because it will look like some kids are absent when in fact they are no longer enrolled in the program."

It's important to use a unique identifier for each participant so you can isolate his or her data, but it isn't essential to use the school system's ID number—which can be difficult to learn, since many students don't have them memorized—unless the program is trying to merge with the school system's database (for example, to link afterschool participation with students' academic outcomes). In fact, Citizen Schools uses an original, six-digit ID number for each child, rather than his or her name, because there are so many participants who share the same name.

Optional data elements collected by the programs featured in this guide include students' participation in specific activities, reasons for dropping out, parent consent given for field trips, and the name of the assigned team leader.

## TYPES OF ATTENDANCE TO TRACK

There are several ways to measure attendance:

- **By the total number of children who come in the door (average daily attendance, or ADA, for the program overall)**
- **By the number of days that each child attends**
- **By the kinds of activities that children participate in (e.g., homework help, sports, arts)**

Many programs measure only the total number of children who attend the program. Those that want to understand what low or high ADA rates mean, or to link attendance to specific outcomes, will also record whether an individual student attends on a given day. "In order to have an accurate [analysis at the] group level you need to know how kids are moving in and out of the group," explains Policy Studies Associates' Russell. "Otherwise, the group of children included in the analysis might be changing day to day or month to month."

**"People's eyes glaze over when they realize there are an unlimited number of data points that we can track. But you don't have to track everything. Start with the basics, based on what your program is focusing on, and slowly build up. Your staff will follow along."**

—Ananda Roberts, President, nFocus Software (KidTrax)

Program directors who want to know which program model produces the most impact or is of the highest quality also need to know what students do after they walk in the door. But few track those data; it requires a significant investment in staff time and/or technology to post data recorders at every activity, and it can be confusing when the data show a student attending some but not all of the program day.

Multi-site initiatives and citywide data collection systems face an additional issue: Will they accept data in multiple formats or insist that each site use the same format so that data quality is consistent? Very few site-based programs have the

technical ability to translate data from one system into another, and it may be hard for the people who require data to justify that level of effort.

For in-depth examples of the types of attendance afterschool programs track, see Appendix B.

## WHEN AND HOW OFTEN TO TAKE ATTENDANCE

Many afterschool programs take attendance once a day when children are gathered in large groups, such as snack time, or they assign the task to the instructor for each group of children. Drop-in programs, such as those operated by Boys & Girls Clubs, may station a “greeter” or a sign-up sheet at the front door to catch all incoming students. But data collection is more difficult for programs in which groupings and activities vary throughout the day and week. Programs usually reach compromises based on when staff are most available to take attendance.

## HOW PROGRAM DESIGN AFFECTS DATA COLLECTION

The way in which students move through an afterschool program can make one method or level of data collection more appropriate than another. Some design elements to consider:

- **If the program is school-based, do students leave the building between the regular and afterschool day? If so, the afterschool program can't necessarily rely on data collected by the school program (e.g., through the school system's scanners and swipe cards) and will have to re-enter its own data.**
- **Do some activities occur offsite? If so, a centralized sign-in location at the main program site won't be sufficient to capture data on all students.**
- **Do all students participate in the same activity at the same time, or do groups of students rotate through activities? If everyone does the same thing at the same time, you may be able to gauge the effects of participation even if you only know which students walked in the door at the beginning of each day, because that alone will tell you what each student did each day.**

For in-depth examples of the way that program design affects data collection, see Appendix B.

## ENSURING DATA QUALITY

The reliability of ADA data varies considerably across afterschool sites, for several reasons. If the program funder uses attendance data to calculate grant amounts, or if the data are used to justify incentives to participating students, sites are motivated to make sure their data are complete. But there also is an incentive to show high attendance rates. “At some sites, when you disaggregate the data you may find identical individual data for all 50 kids, and you know they made up their data,” one researcher says. “The problem is not that people are venal but whether they're really collecting what they're supposed to be collecting,” agrees a funder.

Drop-in visits by program directors or funders, to verify reported attendance figures, are one strategy for quality control. Researchers also advise programs to keep data collection processes simple so staff will do the task consistently. Researcher Charlie Schlegel, who works with many programs that serve middle-school students, further urges program directors to pay special attention to verifying the attendance records of older youth. “They may say a parent asked them to leave early when that isn't the case. Why, exactly, the student was absent from the program is pretty important to the analysis of participation data,” he says.

For more on techniques for ensuring data quality, see the “Issues and Challenges” section of profiles in Appendix B.

**“Quality is a huge issue, because this is labor intensive. I don't want to do something that isn't methodologically meaningful, because then people are doing a lot of work for nothing....At the same time, we want the programs to think of this as an important way for them to make better decisions.”**

*—Rachel Baker, Deputy Director, Team-Up for Youth*

## MERGING DATA FROM MORE THAN ONE SYSTEM

One way to maximize the amount of student data available to afterschool programs, without complicating data collection on the front lines, is to combine the program's data with information on the same participants culled from the MISs of other youth-serving institutions. For example, some large afterschool initiatives have agreements with school districts that enable them to submit the names and identification codes of afterschool participants and receive data on those students' test scores and school attendance.

Three issues complicate this type of data collection:

- **Inconsistent methods for identifying individual students.** Foundations, Inc. operates elementary and high school programs in multiple sites. Each district has a different system for identifying students, which makes it difficult to merge the data into a single database. Consequently, for elementary school programs, Foundations, Inc. collects individual attendance data but usually only reports it at the group level. Other programs, which individually identify participants by a code other than the school system's student ID number, have found it hard to verify that they are, in fact, getting data for the right students.
- **Confidentiality concerns.** Some school systems are willing to release student data, with the appropriate caveats and guidelines for their use; others are not. Typically, afterschool programs or their evaluators must obtain parent consent for the data (from either database) to be shared. Thus one essential element of the afterschool program's database may be whether participants have a signed consent form on file.
- **Delays in obtaining key data.** School test data for a particular year usually are not available to researchers until the following school year, which can delay analyses of afterschool impacts.

A few school systems and city youth authorities are developing systems for collecting and storing data from a variety of youth-serving programs, and some will incorporate attendance data. See pp. 20-22 for examples of these systems and the issues they face.

**C**OLLECTING DATA is only the first step in monitoring afterschool attendance. If you want to use your data for any of the purposes outlined in Chapter III, you'll need to enter and maintain the data in a system capable of organizing and manipulating information. "Having an electronic system is important because it enables you to sort by various data points," explains Charlie Schlegel, former research director at Citizen's Schools in Boston. "For example, kids often are grouped by program elements or activities rather than alphabetically."

Usually, the attendance data captured on daily rosters or sign-in sheets are entered into an electronic tracking system, which can range in complexity from a simple electronic spreadsheet to a custom MIS. All systems, however, face similar choices about technology needs, costs, and complexity and procedures for entering, "cleaning," and maintaining the data.

### TECHNOLOGY NEEDS, COSTS, AND COMPLEXITY

Electronic processing systems make it easier and faster to analyze and use data later on. But they carry financial costs—in the form of computers, software, and sometimes Internet access—and human resource costs, in the form of technical skills needed by the staff who perform data entry. (For the amount of money needed to obtain some of the most popular systems, see p. 24.) Choices include the following:

- **Should you automate the attendance data or stick to a simpler, but perhaps more time consuming, system of hard copy storage and calculations done by hand? The inherent tradeoff: financial cost, investment in staff training, and ongoing commitments of staff time vs. easier data analysis and reporting, greater flexibility, and reduced staff time and effort to create reports and analyses.**
- **If the system is automated, how will you support sites that lack the necessary equipment? LA's BEST provided its sites with computers, scanners, and printers to support**

**the data system. For Baltimore's Safe and Sound Campaign, where one parent organization sponsored multiple afterschool sites, it was most efficient to have each site send hard copies of attendance records to a central location that had the staff, equipment, and expertise to process data. TASC also followed that model in its first year, although TASC later purchased computer equipment, a database system, and training for sites.**

Rachel Baker, deputy director of Team-Up for Youth (an afterschool youth sports intermediary in the San Francisco Bay Area that receives funding from The Robert Wood Johnson Foundation), has grappled with this issue. Although Team-Up asks its grantees to provide data, "we haven't created a standard [process] so it's hard to compare across sites," Baker notes. "We want to standardize more but also be respectful of the burden by trying to build on the systems already in place."

### DATA ENTRY

Accurate data entry is important because erroneous or missing information can distort findings and thus undermine the quality of the database. The most common problems include "stray values" (i.e., invalid entries for a specific variable, such as attendance recorded for a date on which the program did not operate) and missing data on a student's demographic profile (e.g., age or sex), according to John Lee, senior researcher for the National Center for Research on Evaluation, Standards, and Student Testing (CRESST). Many data systems, including CRESST's Quality School

**"In one year, LA's BEST grew 187 percent. That had major implications for how the organization documented and maintained student attendance. An automated system not only ensures a higher level of accuracy—frontline staff receive forms with preprinted student information—but also allows the organization to analyze attendance patterns across sites."**

—Tiffany Berry, LA's BEST, Evaluation Consultant



## WHO DOES DATA ENTRY?

At AFTER SCHOOL MATTERS in Chicago, a teacher at each of the 24 school sites enters after-school attendance data. “You could assign the task to kids, but that takes them away from what they could be doing in the program,” observes Executive Director Nancy Wachs. “We could have each [afterschool] instructor do it, but they don’t have a computer in each room.”

At the P.F. BRESEE FOUNDATION’s drop-in program in Los Angeles, which serves about 1,600 children and 1,500 youth annually, each participant scans his or her swipe card while entering the building. Students scan in again at every classroom and activity lab, where the system asks for information on what they are doing there. Youth workers stationed at the activities verify the information. Activities that occur offsite use a sign-up sheet, and staff enter their students’ ID numbers into the center’s MIS. LA’s BEST is beginning to use an automated process called Teleform. Afterschool staff take daily attendance on standardized forms, which they scan weekly into a central database. There is no manual data entry, although someone verifies the scanned information to make sure it is complete. At the 40 afterschool programs funded by FOUNDATIONS, INC., site-based staff take a daily headcount. At the end of each month, they calculate average daily attendance and send the number to the central office for entry into a Microsoft Excel database.

Profile, have built-in filters that identify invalid entries and prompt users to fill in missing information. (See also the section on cleaning data, below.)

Still, data entry can be a fairly sophisticated task. For example, the PC-based data “shell” designed by the Family League of Baltimore City had separate screens for entering students’ demographic information, attendance, and many other pieces of data. After the data were entered, site-based staff generated a summary file. By the second Friday of each month, they were expected to

send data from the previous month via email or diskette to the organization responsible for all 89 sites, which aggregated the data.

The initiative provided all of its sites with the Microsoft Access-enabled data program and training on how to use it. But, as an observer notes, “What they didn’t do as well was make sure each site had someone competent to do the data entry. A lot of the sites...didn’t even have computers. It was quite a culture shock.” (Partly in response to these challenges, the Family League of Baltimore City now uses an online system that eliminates the need for site-based entry shells and monthly transfers of data to the central database.)

## CLEANING DATA

“Cleaning” the data means checking to make sure the data are complete, valid, and consistent with the definitions established by the program or its evaluator. Problems with data are especially prevalent during the beginning and end of the school year, when routines are in transition. Other common issues include:

- **Verifying the student’s enrollment date.** Evaluators of one major afterschool initiative found many reports of a student attending a program a month or more before his or her official start date. In other cases, they found a lapse of several months between the enrollment data and the time the student showed up in attendance records. Both discrepancies made it difficult to draw conclusions about the student’s exposure to the program and any effects it might have produced. “Enrollment can be interpreted as when the parent fills out an application form or as when the kid first comes to the program,” observes an evaluator. “We ended up establishing the first day of attendance as the enrollment date.”
- **Clarifying the dropout date.** Often, attendance records indicate a student’s enrollment date but not his or her end date—yet many students don’t show continuous attendance until the end of the school year. This confusion over end or “drop” dates becomes an issue for evaluators attempting to measure exposure and outcomes. Evaluators of TASC, whose database contained records on more than 37,000 children in 2002,



designated the seventh day after the last recorded date of absence as the student's end date. However, that solution would not work for youth-serving programs that use a drop-in model, such as Boys & Girls Clubs.

- **Validating attendance dates.** It isn't unusual to find records of student attendance on weekends, holidays, and other dates when a program is closed, so attendance data need to be compared to a master calendar of possible service dates. "Between the day [students] first attend and the last day they attend, we compute the number of days it was possible to attend the program—in TASC's case, the number of weekdays minus holidays and other school closings," explains PSA's Richard White. "We go through day by day and take out the unclear data. We also check to see whether the number of [reported] days attended is larger than the number of days possible. It's pretty easy to do if the data are in a spreadsheet and the dates are columns in the spreadsheet; you can just delete everything in a column representing a date that the program wasn't open."
- **Obtaining a unique student ID number.** If data analysis involves matching attendance data to information on individual students extracted from other databases, each student will need a unique identifier. There are two issues here: establishing an identifier that will elicit the data you need from the database, and making sure the identifier is entered accurately. School system-assigned student ID numbers are an obvious choice, but they are notorious for causing confusion when a student forgets his or her number or deliberately submits the wrong one. After School Matters allows teens to use either their student ID number or Social Security number. "A child may give us one number the first year and the other number the next, and we have no way of knowing if it's a different [person]," says Wachs. "We offer both these options because they may not know their student ID or they may not go to one of the city's high schools. For many teens, this is the first time they've used a Social Security Number." To address this problem, someone may need to check every student ID number for accuracy before the attendance data can be merged with other sources.
- **Categorizing unexcused absences.** Some programs have considered tracking excused absences (e.g., due to illness, a family commitment, participation in another afterschool activity) because they tend to depress

attendance rates. It's a good idea, because it can yield valuable information about competing demands on children's time, but one that is hard to execute. It may require the child's family to send written verification of excused absences to the program; someone has to decide whether to accept the excuse; and someone has to enter the right code for the absence in the data system. "It usually becomes a bigger burden than it's worth," says White, recalling that TASC created more than a dozen subcodes to categorize student absences but abandoned the practice when sites interpreted the codes inconsistently. TASC's attendance takers now simply mark participants either present or absent.

Most data systems developed for evaluation purposes have built-in mechanisms that help with the cleaning process. Program directors who use YouthServices.net can generate reports that identify missing data elements for each child and summarize the percentage of children who have validated entries on file in each data category. At the initiative level, managers use the reports to learn which sites are having trouble entering data and what kinds of data they're struggling with. Some YouthServices.net users respond very rigorously to those data gaps. The City of San Francisco, for example, considers services for any child to be "invalid" (not countable) if any of the data elements pertaining to the child's *teacher*, such as his or her primary language, is missing.

Similarly, nFocus Software (developer of the KidTrax system) checks to see which sites are failing to enter data and follows up with those clients, at both the initiative and site level. "The system is designed to send automatic emails to remind [clients] of the upcoming reporting cycle, to alert them to the fields that are blank, or to trigger our staff to make calls," says company president Ananda Roberts. That feature makes systems like KidTrax especially useful for loosely organized groups of programs that receive funding from the same organization but don't have a standardized data reporting process.

ATTENDANCE DATA usually are collected daily but tracked monthly. In other words, at the end of each month the daily data are aggregated so programs can calculate overall enrollment and average daily attendance (for the program and, sometimes, per child). Other useful analyses include:

- Number of days that each child attended
- Individual children's attendance rates
- Duration of enrollment—the average number of weeks or months that a child remains in the program and whether a child or group of children attends for more than one enrollment period (i.e., semester or year)
- The total number of children served during the year, versus the number who attend for a specified duration
- Maximum and minimum number of children served on any given day

All of these analyses are based on knowing students' enrollment date, so it is essential to have a consistently applied definition of enrollment. TASC uses the term to mean the target number of students to be served; other programs use the total number of children served during the year, even if they only come for one day. "We always look at the month that had the highest attendance and consider that the total enrollment for the program," says one researcher. "If we looked just at numbers for all the kids who ever attended, it would be an inflated enrollment because of the large number of kids dropping in and out."

Other data analysis issues include: selecting a denominator for attendance rate, measuring dosage, interpreting and comparing results, and using attendance data to assess demand for services.

### SELECTING A DENOMINATOR FOR ATTENDANCE RATE

Attendance rate can be calculated in several ways. Some programs base their analysis on the percent of available days that an enrolled child (or group of children) actually attended. Policy Studies Associates used that method during the first few

years of the TASC evaluation; evaluators established a rate of 60 percent (attendance three out of five weekdays) as an indicator of "active attendance" and 80 percent (attendance four out of five weekdays) as an indicator of "high attendance." But they later realized those rates didn't account for the varying duration of students' involvement in the program. Now, PSA defines an "active" attendance rate as at least 60 percent and *60 days*; a "high" attendance rate is at least 80 percent and *80 days*.

"To pick those definitions, we looked at the median number of days kids attended. Sixty days was the cutoff for the 30th percentile, meaning that 30 percent of kids attended fewer than 60 days," explains Richard White. "We're therefore cutting out the kids who weren't enrolled for very long but whose high attendance might throw off our analysis. The 80 percent/80 days definition is an even more stringent measure."

Alternatively, Baltimore's Safe and Sound program, which uses average daily attendance to hold afterschool sites accountable for their service targets, interprets ADA as the number of students present in a given site, on an average day, over the course of a month.

### MEASURING DOSAGE

"Dosage" refers to the level of exposure to a program or activity that a child receives by attending. Students who attend for more hours or days are presumed to receive a higher dosage than those whose experience is more limited. Dosage is most relevant for programs that seek to show that participation in an afterschool program produces specific outcomes.

The main challenge is to *establish a standard for the minimum dosage level* needed to produce the desired results. If one measures solely the percent of available days of service that a child or group attends, and the number of available days is very small, interpretations of participation might be falsely high. For instance, a student who attends 100 percent of 10 days has achieved a high attendance rate, but the actual exposure he or she received to the program's social, cognitive, and

academic benefits is very different from that of a student who attends at a rate of 80 percent spread over 60 days. Combining the duration of a child's attendance with his or her attendance rate provides a better measure of dosage—as TASC evaluators did, for example, in establishing 80 percent and 80 days as the standard for high attendance.

An attendance system that captures the information needed to compute dosage also enables a program director or evaluator to explore whether there is a relationship between dosage and desired outcomes, whether a minimum threshold of dosage must be met before benefits can be expected, and whether there is a maximum dosage after which no additional benefits occur.

Minimum dosage standards tend to vary according to the age of program participants. Evaluators of Citizen Schools, whose programs serve middle-school students, established 80 percent attendance as the minimum level needed to achieve positive outcomes, based on an intuitive sense about what can be expected from youth in grades 6-8. "We're recognized for having over 80 percent attendance, which is high for this age group. But for a program serving kindergarten through third grade, I would not be satisfied with 80 percent," Schlegel says.

Another challenge is to *eliminate duplicate records*. Let's say a program in San Francisco's Chinatown plans to offer three seasonal activities: a volleyball program, followed by dragon dancing, followed by Brazilian martial arts. "The question is, how many kids participate in each program and how many participate in more than one?" asks Rachel Baker. "If a girl participates in two seasons, how do you make sure she's not counted twice?" To control for duplication and make sure it is comparing "apples to apples," Baker's program has considered measuring dosage by the number of service hours a child receives during the year.

## INTERPRETING AND COMPARING RESULTS

Data interpretation is both a science and an art, and this guide does not attempt to teach either one. However, some important questions to consider as you examine attendance data include:

- **Are students required to attend every day that the program operates and to stay for the full session, or are they allowed to come and go at will?** For a drop-in program like the Boys & Girls Clubs, it's fine if the data show that students come to play basketball for a while and then leave when the game is over. But for a more structured program, especially one with academic goals, that finding suggests a problem.
- **Is the program offered every day of the week? In order to reach conclusions about exposure, you need to know how many hours per day and week the program operates.** Programs like KidTrax can analyze the busiest days of month or year and the busiest hours during those days. "Maybe Tuesdays are slow in terms of numbers [of participants] but the kids stay longer, so total hours of service on those days are higher per activity," explains nFocus Vice President Don Pruitt.
- **How are certain services defined?** For initiatives like Team-Up for Youth and Safe and Sound, which aim to increase the number of afterschool slots available to youth, how does one define "new" or "expanded" services? Does it mean services provided to a person who has never played sports before? To someone who is newly enrolled at the program in question? Or expansion of a program's capacity to offer a certain number of new slots? "This is important, because a girl in one program might be getting 12 more months of [services] while a girl in another program is getting only 12 more weeks," says Team-Up's Rachel Baker. Both girls' data show expanded services, but the impact will be different in each case.
- **Are there competing activities that prevent children from attending?** A survey or interviews may be the best way to understand the impact of contextual factors on attendance patterns.

## USING ATTENDANCE DATA TO ASSESS DEMAND

Can attendance data be used to gauge demand for services? Yes...and no, experts say. The data can offer insights into the preferences of attending students. For example, if the typical student attends three days a week or less, there probably isn't much demand for services five days a week. Data also can indicate situations that warrant more analysis—such as a site with the capacity to serve 100 students that has only 20 participants, or one that consistently operates at overflow capacity. But attendance data can't reveal much about what prevents non-attending students from participating or whether those students want to attend in the first place.

## REPORTING DATA

Experience suggests three especially useful ways of reporting afterschool attendance data. One summarizes “process” information, such as the number of students served and the types of services they receive; one shows relationships among data from different sources; and one summarizes outcome data. For example:

- **YouthServices.net can generate a periodic Units of Service Report for each site that tabulates the number of students served, how many times each student shows up, and the cumulative hours of service. “We will then break it down to the number of kids, encounters, or hours of service per category, such as academic support or recreation,” says software developer Mark Min. Reports can be tailored to show the participation of a subgroup of students. The KidTrax system has similar capabilities.**
- **YouthServices.net’s Youth Participation Report can track the attendance history of a specific child and provide a one-page summary of the child’s participation, including number of days attended, cumulative hours of service, types of services received, referrals to other programs, and the names of staff who worked with the child.**

- **KidTrax provides more than 150 standard reports that analyze attendance, turnover, weekly usage, and participants’ demographic characteristics. Trend analyses identify usage patterns (positive and negative) over time, which helps users evaluate progress toward outcomes. A wizard-based Web survey tool takes outcome measurement a step further by helping users gather information on participants’ experiences and attitudes toward programming.**
- **Quality School Portfolio (QSP) has a set of built-in reports that capture the relationship between data elements, such as student math scores based on teacher’s education level and parent’s involvement.**

When reporting some data, it is important to acknowledge the external factors that might influence them. Rachel Klein, evaluation director for After School Matters, cautions that attendance data for older students can be especially sensitive. Low-attending teenagers “tell us they have other demands on their time,” she says. “Overwhelmingly, [poor attendance] is because they got sick, had to do homework, had to take care of their siblings, or needed to make more money. Those are things we can’t control, and we need to present that information to help manage the expectations [of our audience].”

**A** FEW CITIES AND SCHOOL SYSTEMS are developing data tracking systems that span a variety of youth-serving programs. Because most are still evolving, there are few well-established models available for replication. The three efforts outlined below, however, illustrate some promising attempts to address the challenge. (For more detailed profiles of two other citywide systems, located in San Francisco and Louisville, Kentucky, please see Appendix B.)

### **DEPARTMENT OF YOUTH AND COMMUNITY DEVELOPMENT (NEW YORK, NY)**

The Department of Youth and Community Development (DYCD) in New York City distributes federal Community Development Block Grant allocations made to local community-based organizations. To meet federal grant reporting requirements, New York State created a Results-Oriented Management and Accountability framework (ROMA). ROMA proved to be such a powerful tool that it has become the agency standard for outcomes tracking. In 2003, DYCD obtained funding for a demonstration project to develop a ROMA-derived outcome framework for youth and adults that participate in Beacon afterschool programs, as a first step in introducing ROMA to all of DYCD's afterschool programs. The software will allow for extensive analysis of program effectiveness, across a variety of demographic groups, through password-protected Web access—available through virtually any computer connected to the Internet, using a one-of-a-kind, Web-based query feature.

Because of ROMA's emphasis on results, the city's tracking system will focus on linking participation levels in specific activities to outcomes, according to Janice Molnar, DYCD Deputy Commissioner for Program Operations. Currently, outcomes are limited to program attendance. As the system moves forward, program attendance will continue to be tracked but will be monitored only to determine whether a program is serving the projected number of children.

The software that will power DYCD's system is being adapted from tools developed by The

Rensselaerville Institute, a nonprofit national education center based in upstate New York, to help other organizations in the state track ROMA outcomes. One of the first steps was to decide what to include in the system. The current list of potential data fields includes name, address and other identifying information, demographic data, hours of program attendance, and every activity the student participates in each day. Although the number of required data fields is small, programs that use the system may add additional fields to organize data required by their other funders.

Initially, the system will be implemented in the city's 80 Beacon Schools. Site directors will enter descriptions of all afterschool activities available to participants and their hours of operation. Each site will use its own preferred method of recording student attendance and activity participation (most Beacons currently use sign-in "activity sheets," but there is no standardized method). The data from each site will be entered electronically onsite and submitted via the Web to a centralized database at a location still to be determined.

All DYCD contract officers will be trained to use the database to generate reports for funders and other stakeholders—for example, to track which children are eligible for TANF reimbursements. Having the data on all programs available electronically in one database, in an easy-to-use format, should improve contract managers' efficiency, notes Darryl Rattray, Special Assistant to the Assistant Commissioner for Afterschool Programs.

The Rensselaerville Institute will work with DYCD staff to define program outcomes and identify indicators of them, so the system can be used to gauge the effect of afterschool programs on the children and communities they serve. "If one of our goals is academic enhancement, for example, an outcome could be [improved] report card scores for [afterschool participants]," Rattray explains. "Or, we might look at participant activity in tutoring and see if those who have a high rate of tutoring participation do better in school."

Individual programs and schools will be able to access their own data to add activity descriptions or new participant information, run queries on spe-

cific participants or groups of participants, create site report cards, and enter data from their own surveys. The system is password-protected, so each site or program has access only to its own data.

The DYCD data system is still in the planning stage. The 80 Beacon sites should be fully entered into the system by fall 2004. Ultimately, DYCD hopes to implement the ROMA framework for all afterschool programs funded by DYCD.

### **BUILDING BOSTON'S AFTER-SCHOOL ENTERPRISE (BOSTON, MA)**

Building Boston's After-School Enterprise (BASE) is a project of Boston's After-School for All Partnership, a 15-member funding collaborative funded by The Robert Wood Johnson Foundation. In developing a citywide data system, BASE (which operates under a separate RWJF grant) seeks to create a new data collection and analysis system that will improve the development of afterschool programs. The system will provide up-to-date information on supply and demand, resources for parents and service providers, and state-of-the-field reports.

"This project is particularly important because Boston is a city of neighborhoods, and by and large the neighborhoods are low- to moderate-income, with families of color," explains Debra McLaughlin, managing director of Boston's After-School for All Partnership (BASAP). "We need to understand where these kids are going and what's available to them in order for us to realign our resources and decision-making to ensure that as many kids as possible receive the support they need."

BASE staff approached city agencies and major intermediary organizations that already compile information about individual sites and asked them to cooperate in creating a single data collection tool. That instrument, which is in development, will initially track broad program-level data: type of service(s), enrollment capacity, actual enrollment, participants' demographic characteristics (aggregated), staffing configurations, funding streams, type of outcome measurement, connections with other organizations or schools, and possibly information about facilities.

"Our goal in this first cut is to get as many programs as possible to answer general questions. Then we expect to do some intensive surveys on issues of special concern, such as funding or staffing or transportation, and also surveys that tap into specific types of [activities]," says BASE Project Director Lisa Jackson. Ultimately, she expects the system to have the following benefits:

- **Data will be collected using a standard, Web-accessible form.**
- **Programs will be asked to provide data less frequently. The reduced burden will give program staff time to conduct the work they do best.**
- **Data for research, policy making, and systemic improvement will be more easily available to people working in the afterschool sector.**

For now, each intermediary organization will work with the programs it supports to complete a data profile. The data will be entered in a central database, either onsite via the Web or by being scanned at a central location. Frontline data collection techniques have been left up to the intermediaries, although BASE is trying to identify useful data collection resources. At least temporarily, the database will be housed on Boston's After-School for All Partnership's website.

Database planners are grappling with several issues:

- **BASE hopes to capture data on all afterschool programs serving children from kindergarten through high school—but programs that serve youth over age 13 are exempt from state licensing requirements, which means there is no centralized, formal record of their existence.**
- **The spectrum of program types is broad, and it will be a challenge to include the informal network of volunteer providers, such as coaches and mentors, faith organizations, recreational leagues, and clubs in addition to formal programs for homework help and enrichment.**
- **People in some sites may need help using the system. "There will probably be a subset of organizations—the mom-and-pop groups that**



**may not even have an office—that will need additional support,” McLaughlin acknowledges. “Will we have to get them computers? What types of technical assistance will they need?”**

## **CHICAGO PUBLIC SCHOOLS (CHICAGO, IL)**

Chicago Public Schools (CPS) supports about 450 school-based afterschool sites serving an estimated 40,000 students in kindergarten through eighth grade. In 2002-03, the CPS afterschool programming division and the budget office began working to create a citywide system for tracking attendance in afterschool programs. The effort was driven by the need to document the number of afterschool participants eligible for TANF reimbursement and by concerns about preserving the programs with heaviest usage during a time of budget cuts.

The afterschool data system builds on two bases: CPS's existing system for tracking teacher payroll, and an online system created by the city's summer jobs initiative for youth. The jobs program created a central database that youth can access via the Internet to learn about available jobs, complete a detailed questionnaire (with fields for a range of demographic data), and submit applications; employers use the system to identify job candidates. Working with Edge Technological Resources (ETR), Inc., CPS similarly adapted the payroll system, which was already familiar to school data-entry staff, to track attendance in afterschool programs.

Beatriz Rendon, then head of CPS afterschool programs, and Diane Fager, director of Policy and Program Development, worked with a technology consulting firm and a programmer to create the Web-based After School Attendance Reporting (ASAR) data system. Since ASAR piggy-backs onto the school district's payroll system, it resides on the payroll department's server (supplemented by the addition of a second server). Afterschool attendance data are entered at each site by the school's payroll clerk, and for that reason a senior payroll official was also consulted during the system's development. The clerks only have to enter a student's identification number to

trigger the underlying school database and find the child's name and vital information.

ASAR only collects data on a student's daily attendance in or absence from an afterschool program. The CPS Office of Accountability sends forms to each afterschool program, which teachers or program coordinators use to collect individual student data. Every week, for each day that a student was absent, payroll clerks enter into the system one of several codes that identify the reason (e.g., sick, excused, transferred). Blank boxes are presumed to mean the student was present.

The system is password-protected, and only payroll clerks and principals have access to the database. They can view data for their program but not for another school.

ASAR relies on human and technological capacity at each school, which has caused some glitches. Some schools had old computers with inadequate memory; ASAR developers arranged for technical assistance to remove unused programs and, in some cases, upgrade memory. When CPS began using the new system in the middle of the 2002-03 school year, school payroll clerks received stipends for their help. The stipends stopped in 2003-04, because the data entry process is now considered a regular part of the clerks' job. CPS shifted from monthly to weekly data entry after realizing that breaking the task into smaller pieces reduced the burden on school staff.

Chicago has an advantage in that taxing authorities that are legally independent of the City of Chicago (e.g., Chicago Public Schools, Chicago Park District) come together to share a common vision of how to provide services for young people. Cooperation helps align their priorities and makes it easier to mobilize action. Still, system developers say that the process of creating a centralized system for multiple data users can reveal competing interests. “If you're going to make all these people work together, you have to quickly identify the most common data points and put them in a standardized structure that appeals to [frontline data producers and users],” notes Jaison Morgan, senior policy analyst for the Mayor's Office and a creator of the summer jobs data system.

**W**HAT DOES IT TAKE to develop the data systems described in this guide? Two ingredients are paramount: Staff time and capacity for data activities, and money and expertise for technology.

### STAFF TIME AND CAPACITY

Program directors and staff routinely bemoan the amount of time and effort it takes to collect and enter attendance data. And when data must be compiled from dozens of sites, the task becomes even greater. The central administration at the Family League of Baltimore City, for example, at one time had three full-time staff devoted to data work.

Staff who are being asked to take on unfamiliar data tasks need training. When LA's BEST introduced its data system, the initiative convened all site coordinators to introduce the process and then held hands-on, small-group training sessions. Follow-up training occurred throughout the next year.

One appeal of automated data collection systems, such as swipe cards and scanners, is that they minimize the effort required by staff to take attendance. In addition, some software companies assist their clients with data "crunching" on a regular basis. For example, CitySpan Technologies, working for TASC, produces a weekly summary report that TASC can review and refer to as needed.

### MONEY AND EXPERTISE FOR TECHNOLOGY

Typical costs for a data system include:

- Purchase and installation of onsite computers, if not already available
- Development or purchase of a management information system (MIS)
- Staff training to collect and/or enter data
- Internet access
- For swipe cards, at least one scanner and a serial connection
- Purchase or lease of a software package
- Customization of the MIS software, if desired
- Expertise to analyze and interpret the data

Software costs often vary, depending on how many sites (or, in the case of swipe cards, classrooms) are involved and how much customization is required to meet the program's information needs. The major customizable systems are YouthServices.net and KidTrax. Software for YouthServices.net costs \$500 per year for a single-site license and unlimited technical support. Programs with more than 10 sites get a price break, but customization of the software costs extra.

A single-site KidTrax license has a one-time fee of \$1,850 per year (which includes one scanner) and an annual fee of \$449, which covers unlimited technical support, product updates, and data storage and hosting. Additional scanners cost \$550 each. Multi-user licenses (i.e., when three to five people will be logging onto the system) cost \$2,250 upfront.

Typically, KidTrax can be customized at no additional cost. Other customized software, however, can cost between a few thousand dollars for a small program to more than \$100,000 for a citywide data system.

Some database planners say that the cost of developing the system is not as significant as the investment required to monitor and analyze the data, which can be a large and continuous job. Chicago's citywide database of summer jobs for youth (see p. 22), for instance, has a committee that meets monthly to analyze data on which neighborhoods have high demand for jobs and which are being under-supplied by employers. A special team, augmented by staff at city agencies, monitors data quality and modifies the system as needed. For instance, if a large proportion of students begin an application but don't complete it, the team may contact the principal of the school that serves the students and start a campaign to improve completions. Still, observers say the electronic database probably saves Chicago money because the city doesn't need to hire people to process thousands of paper applications, and because it takes less time to categorize and search the information on electronic applications.



# IX

## Lessons and Conclusions

THE PEOPLE WHOSE KNOWLEDGE and experiences shaped this guide represent a variety of data tracking approaches. All, however, had encountered similar challenges, including:

- **Identifying the information needs that should drive the selection or development of a tracking system**
- **Balancing the need for detailed data with the financial and human resources available to collect data**
- **Learning how to use the system; understanding how each data element is defined, how to make queries, and how to analyze the reports generated from queries**
- **Ensuring that data are entered correctly and completely**
- **Keeping attendance records up to date**
- **Tracking attendance in unusual services, especially those that occur offsite or are especially intensive (e.g., mental health counseling)**
- **Tracking attendance by activity, especially when activities change several times during the day**
- **Interpreting data accurately, especially when the data show a dramatic drop in expected attendance levels**
- **Protecting the confidentiality of individual students and, sometimes, of specific programs when the data become part of a large, broadly accessed database**

Their engagement with these issues (presented in Chapters III-VII and Appendix B) produced hard-won lessons about choosing a data system, implementing it, and living with the consequences.

### CHOOSING A SYSTEM

What's the best system for monitoring data on afterschool attendance and participation? There is no simple answer, because it depends on how the program is designed. An initiative that operates several very similar sites might do well hiring site-based data staff. An initiative with a very heterogeneous mix of sites might find it more efficient

to have sites upload their data to a central location for processing and analysis, however.

**“The key in making decisions is: What do the sites really need to know? What does the program office need to know? And what does the evaluator need to know? Everybody has to keep in mind how much work each additional item adds for the site.”**

—Richard White, Policy Studies Associates

In programs where students stay in groups and move among activities with a group leader, a pen-and-paper approach might be sufficient. In a program that allows students to select activities and move from one to the next individually, swipe cards might be a good method—especially if the afterschool program is based in a school or center that has already purchased the equipment. Swipe card technology requires more technical support than other methods, however, and the expense goes up if you need to track every activity. (When relatively small numbers of participants are involved, a single scanner can track multiple activities during a single period, says Ananda Roberts, but high-traffic sites may need a scanner for each room.)

For many programs, scanner technology costs are offset by the time and effort saved. For other programs, however, there are political factors to consider: “[Swipe cards] would be controversial in the Bay Area because a lot of kids come from undocumented immigrant families, and there's a real fear about how information might be used,” says Team-Up for Youth's Rachel Baker.

Choices about data systems also depend on the program's data needs. A program that only needs to collect a headcount and do simple calculations of average daily attendance at the group level will do fine using hard-copy rosters and entering the data into an Excel or Access database. A program that needs more detailed, child-level data or wants to analyze outcomes will need a more robust system for storing and manipulating data.

Although data needs vary from program to program, the following lessons apply to most systems:

- ❶ **Keep it simple.** Program designers and evaluators admit that they get excited about a system's most advanced technological capacities. If the program doesn't really need those capacities, however, you probably should opt for something streamlined and easy to use.
- ❷ **Make sure the people who are directly responsible for data collection play a role in designing the system.** Frontline program staff can give system designers a realistic sense of what data can and can't be collected.
- ❸ **If you want to link afterschool attendance to educational outcomes, you'll probably need to establish a data partnership with the school district.** Agreements on what data will be provided, how, and with whom, pave the way for data sharing.

#### FACTORS TO WEIGH WHEN CHOOSING A METHOD

- ✓ **How comprehensive the database needs to be**
- ✓ **The time burden that will fall on frontline staff**
- ✓ **The cost of developing or adapting the system**
- ✓ **User friendliness, especially in terms of generating and customizing reports**
- ✓ **How complicated it is to maintain the system (frequently a hidden cost of time, if not money)**
- ✓ **Whether someone is available in-house to analyze data or whether that capacity must be purchased**
- ✓ **How dispersed the sites are (which affects the potential for losing data during transfers)**

## IMPLEMENTING THE PROCESS

A few interviewees described breakdowns in the data process as it moved from planning to implementation. "There was a disconnect between the people who had a vision for what the system would do, the MIS people, and the

researchers, all of whom were in different places," one observer said:

It was murky who the leadership was. The other problem was the idea that you could just tell a bunch of sites to [collect data] and it would happen. We didn't give them enough money to make them want to do it, and then there were a lot of people who did want to comply but didn't know how. It's now 2003 and we're just getting a system that people are beginning to use well.

Moreover, the quality of data tracking can vary across sites if the oversight organization or evaluator doesn't require sites to use a standardized process and format. Without a standardized data system, it's hard to compare data. School- and center-based programs have an easier time addressing this issue. But it's much more challenging at a program such as a sports league with many separate teams, whose participants don't come to any central location.

Eight major lessons emerge from these experiences:

- ❶ **Build trust for how the data will be used.** Make an effort to convince people that they need good data to strengthen their programs and communicate their successes.
- ❷ **Be consistent in requiring that sites submit data, but be as flexible as possible in how they collect and submit the information.** Don't sacrifice standardization, however, because that will jeopardize your ability to compare across sites.
- ❸ **Urge sites to collect data daily.** Don't wait until you need to generate a report, and don't try to reconstruct data retroactively.
- ❹ **Take time to troubleshoot data discrepancies.**
- ❺ **Create a mechanism for addressing data collection issues, such as a committee or online troubleshooter.**
- ❻ **Think creatively about the resources available to you for implementation.** Are there school staff or equipment that can be put to use with minimal effort? Is there another program with an existing data system that your program can piggyback onto?

- 7 **Commit to the goal of managing data and keep pushing toward it.** That often means keeping key players motivated to stay at the table.
- 8 **Create incentives for collecting and entering data.** Some programs require instructors to turn in their attendance sheets before they can be paid. The state of California ties funding for afterschool education and safety programs to average daily attendance, at least for elementary and middle schools.

## LIVING WITH THE CONSEQUENCES

The July/August, 2003 issue of *Youth Today* drew attention to afterschool programs that have lost funding because attendance data showed low participation and, consequently, a high cost per child. The pattern of sites getting “defunded” because of poor attendance makes this a legitimate concern for site and initiative directors. But, as one data expert points out, “There’s an adjustment period that has to occur when agencies [start using true numbers]. We have to value those numbers and move forward and not get all hung up on the difference between old and new

**“Try to learn what it is about a certain day that causes differences in attendance. Is it every Friday that attendance drops dramatically? Are Mondays really high?”**

—Christina Russell, Policy Studies Associates

attendance numbers.”

The best way to respond to poor attendance results, experts say, is to do more analysis to uncover the factors. Is the problem that students don’t find the program interesting and are voting with their feet? If so, it may make sense to improve program quality rather than to eliminate or replace the program.

Is the problem caused by incomplete data, which causes too many student records to get thrown out during the data cleaning process? Make sure the system is simple and useful to the people charged with collecting the data, so they will be

inclined to use it. Citizen School’s spreadsheet, for instance, records not only student attendance but also information on students’ school schedules and how they are transported to and from campus—information the frontline staff need and use.

## CONCLUSIONS

This guide seeks to help program directors, funders, policymakers, and researchers understand the issues and options involved in tracking attendance and participation in out-of-school activities. The people interviewed for the guide had first-hand knowledge of the challenges inherent in using, collecting, analyzing, and maintaining data at the program and citywide level. Some had struggled mightily to put tracking systems in place, and some tried more than one option before they found a system that worked for them. But they all understood the importance of not being daunted by the challenges.

In gathering information for this guide, we did not discover any flawless data systems or practices. We also realized, regrettably, that we could not offer a step-by-step recipe for choosing a system because of the great variation in program models, capacities, and data needs. We did, however, hear a consistent theme: JUST DO IT. The lessons outlined above, and the examples in Appendix B and throughout the guide, provide a starting point for “doing” attendance data. Program directors can mix and match a variety of options, from the simple to the high-tech, to find a system that works for them.

Start small; you can always build on the system. Keep it efficient and simple. Focus on how the data will be useful to you and your program staff—to improve program design or management, perhaps, or to fulfill accountability requirements. And don’t be intimidated by the sometimes obscure language of technology and analysis. The important thing, experts agree, is to jump in and give one of the methods a try.

# A Interviewees

**Rachel Baker**

Deputy Director  
Team-Up for Youth  
San Francisco, CA

**Martin Bell**

Deputy Superintendent  
Jefferson County Public Schools  
Louisville, KY

**Tiffany Berry**

Evaluator of LA's BEST  
Los Angeles, CA

**Eric Bruns**

Evaluation Coordinator for Baltimore  
Safe and Sound Campaign  
University of Maryland  
Baltimore, MD

**Nani Coloretto**

Director of Planning and Budget  
Department of Children, Youth  
and Families  
San Francisco, CA

**Lara Fabiano**

Senior Research Associate  
Policy Studies Associates, Inc.  
Washington, DC

**Hugo Fernandez**

Site Director  
Bronx College Town at P.S./M.S. 306  
New York, NY

**Michael Funk**

Director  
Sunset Beacon Center  
San Francisco, CA

**Margaret Heritage**

Web QSP Director  
National Center for Research  
on Evaluation, Standards, and  
Student Testing  
Los Angeles, CA

**Lisa Jackson**

Project Director  
Building Boston's  
After-School Enterprise  
Boston, MA

**Tonia Kizer**

Administrative Assistant to the  
Director of Policy and Program  
Development  
Chicago Public Schools  
Chicago, IL

**Rachel Klein**

Director of Evaluation  
After School Matters  
Chicago, IL

**Andrew Lappin**

Site Director  
Extended Day at the Heritage School  
New York, NY

**Suzanne Le Menestrel**

PPAS System Project Director  
Promising Practices in Afterschool  
Academy for Educational  
Development  
Washington, DC

**Carolyn Marzke**

(Former) Senior Research Associate  
Policy Studies Associates, Inc.  
Washington, DC

**Mark Min**

Principal and Founder  
CitySpan Technologies  
Berkeley, CA

**Debra McLaughlin**

Managing Director  
Boston's After-School for  
All Partnership  
Boston, MA

**Rhe McLaughlin**

Director of Evaluation  
Foundations, Inc.  
New Jersey

**Janice Molnar**

Deputy Commissioner for  
Program Operations  
Department of Youth and  
Community Development  
New York, NY

**Jaision Morgan**

Senior Policy Analyst and  
Project Manager  
Mayor's Office of Programs  
Chicago, IL

**Ellen Pechman**

Senior Research Associate  
Policy Studies Associates, Inc.  
Washington, DC

**Don Pruitt**

Vice President  
nFocus Software  
Phoenix, AZ

**Darryl Rattray**

Special Assistant to the  
Assistant Commissioner for  
Afterschool Programs  
Department of Youth and Child  
Development  
New York, NY

**Elizabeth Reisner**

Principal and Co-Founder  
Policy Studies Associates, Inc.  
Washington, DC

**Ananda Roberts**

President  
nFocus Software  
Phoenix, AZ

**Christina Russell**

Research Associate  
Policy Studies Associates, Inc.  
Washington, DC

**Lisa Saenz**

Unit Director  
Boys & Girls Club of Corpus Christi  
Corpus Christi, TX

**Charlie Schlegel**

(Former) Research Director  
Citizen Schools  
Boston, MA

**Don Shaw**

Executive Director  
Salvation Army Boys & Girls Clubs  
Louisville, KY

**Cheryl Taylor**

Managing Consultant  
Edge Technological Resources  
(ETR), Inc.  
Chicago, IL

**Rahan Uddin**

Database Administrator and Help  
Desk Coordinator  
The After-School Corporation  
New York, NY

**Nancy Wachs**

Executive Director  
After School Matters  
Chicago, IL

**Karen Walker**

Evaluator  
Public/Private Ventures  
Philadelphia, PA

**Christopher Whipple**

Vice President for Operations  
The After-School Corporation  
New York, NY

**Richard White**

Managing Director  
Policy Studies Associates, Inc.  
Washington, DC

**Virginia Witt**

Director  
San Francisco Beacon Initiative  
San Francisco, CA

**John Wolfkill**

(Former) Associate Director  
P.F. Bresee Foundation  
Los Angeles, CA

**Benson Wong**

Director  
Chinatown Beacon Center  
San Francisco, CA

**Joan Wynn**

Evaluator  
Chapin Hall Center for Children  
Chicago, IL

# B

## Profiles of Selected Strategies

### Evolving from Electronic Spreadsheets to a Web-based Tracking System THE AFTER-SCHOOL CORPORATION

### Linking Afterschool Attendance Data to Students' School Records JEFFERSON COUNTY (KY) PUBLIC SCHOOLS

### Tracking Afterschool "Encounters" Across an Entire City SAN FRANCISCO DEPARTMENT OF CHILDREN, YOUTH AND FAMILIES

### Collecting Afterschool Attendance and "Dosage" Data for Evaluation Purposes THE BEACON INITIATIVE

#### Evolving from Electronic Spreadsheets to a Web-based Tracking System THE AFTER-SCHOOL CORPORATION

##### CONTEXT

The After-School Corporation (TASC) supports afterschool projects, primarily in New York City, that serve students in grades K-12. TASC projects are housed in schools but sponsored and operated by community-based and other private nonprofit organizations. TASC selects grantees, administers the program, and provides funding and technical assistance. All sites share certain core components and values developed by TASC, although service delivery models vary widely. In 2002, the TASC attendance database included 37,229 participants at 160 sites. (In 2003, the total number of TASC sites grew to 187. TASC does not track attendance in sites located outside New York City nor in a few other sites that receive only a small portion of their funding from TASC.)

TASC began tracking attendance in 1998, using a simple electronic spreadsheet filled out by site-based instructors. In 2001, the organization began shifting sites to a Web-based system that uses YouthServices.net to centralize and manipulate data.

TASC had four reasons for tracking student attendance, says Chris Whipple, TASC's Vice President for Operations:

- Out of a recognition that a program cannot substantially affect children's outcomes or public policy if children do not attend the program regularly;
- To support the program evaluator's efforts to link students' afterschool "dosage" to outcomes;
- To enable TASC to adjust the budgets of sites that exceeded or fell short of projected enrollment and daily attendance rates; and
- To satisfy the reporting requirements of TASC's biggest funder, the city's Department of Youth and Community Development, which based its level of contribution on attendance figures.

##### THE STRATEGY

TASC's original attendance tracking system was developed by program evaluator Policy Studies Associates. Because most sites lacked access to computers and the Internet, it was designed to be very simple. It consisted of a simple Microsoft Excel spreadsheet that cap-

tured students' names, Board of Education identification numbers, whether the student had enrollment forms on file, and all of the dates that the program would operate that year. At the beginning of each daily session, site-based instructors—known as "group leaders"—recorded on hard-copy forms a "P" (for present) or an "A" (for absent) next to the name of each child, on every day of service. Once a week, another staff member (often located at the sponsoring community organization) entered the data and saved it on a floppy disc. Site directors mailed the discs to TASC, where a programmer pulled the data into a Microsoft Access database.

That system collected the core data that TASC and its evaluators needed, but it was cumbersome. There were many opportunities for data to be lost or entered incorrectly, the data collection burden on sites' limited staff was high, and once the data had been submitted to TASC the sites had no opportunities to do their own analyses.

Will Corbin, a computer programming consultant, helped to turn the rudimentary spreadsheet into a more systematic, flexible, powerful reporting tool. He provided site-based staff training and support, and he helped TASC program officers figure out what reports would be most useful for ongoing pro-



gram management. After a few years, TASC decided to adopt a Web-based system that could help sites collect “clean” data with a minimum of effort, store large amounts of data easily, and use the data more effectively to manage individual projects and the overall program. TASC selected the YouthServices.net system, developed by CitySpan Technologies, to fulfill those purposes. (CitySpan’s data system has been adapted to serve many large-scale afterschool programs and initiatives, including the Children and Youth Investment Trust Corporation in Washington, DC, in addition to others profiled in this report.)

#### Data Collection

“First and foremost in our thinking,” Whipple says, “was: What’s the minimum amount of information that needs to be inputted and what’s the simplest possible way for sites to indicate whether a child is present or absent each day? Those became the mandatory [data entry] fields, and everything else is an optional management tool.”

After each TASC project is assigned a unique log-in and password to the system, the first step is to establish a record for each student and consolidate the students into groupings that reflect their afterschool experiences. (All TASC projects group participants into what are essentially homeroom classes. The exception is at high schools, where students are grouped by activity.) In the data system, each grouping encompasses 20 to 30 children, and each has a unique name (e.g., Group A, Group B).

The required data elements for student records include: student name, address, Board of Education identification number, birthdate, and TASC enrollment date. Site staff may also fill several optional fields, including the child’s sex, race/ethnicity, grade in school, language spoken at home, receipt of special educational services, homeroom teacher during the school day, and transportation services to and

from the afterschool program. Some site directors, such as Andrew Lappin of the Extended Day Program at the Heritage School in Manhattan, also include informal notes, such as “This girl is super computer literate—would be great for yearbook class,” or “Needs extra time for taking exams.”

**“With the Excel system, we tried to fool ourselves and say it was a database. But the reality was, it wasn’t doing anything for the sites. They were just plugging in values and sending it to us. It served the purpose of letting us know how many kids were attending, but it was only giving us attendance and it wasn’t giving the sites anything more... Also, every time we wanted to generate a report or invoice, or look at data in various ways, the consultant [programmer] would have to do the query from the ground up.”**

—Rahan Uddin, TASC Database Administrator

Project directors then tell the data system what the schedule of activities is for each group and create a student roster for each group. Once a week, they print out a blank roster—essentially, a manual attendance sheet—for each group and for every day that the group meets (usually five times per week). The directors give the rosters to group leaders, who place an “X” in the box beside the name of each student who is present, every day. (A blank box is presumed to indicate absence.) Either the site coordinator or an administrative assistant collects the rosters at the end of the week, accesses the database via the Internet, and enters the data. Data entry is a fairly simple process, because the electronic form looks just like the rosters and users need only click on the appropriate box to indicate attendance. At that point, the data are in the system and can be used by the site director, TASC program officers, and the evaluator.

Some sites vary the process slightly. For example:

■ Hugo Fernandez, director of Bronx College Town afterschool program at P.S./M.S. 306, a TASC project sponsored by the Committee for Hispanic Children and Families, has his group leaders take attendance several times: when students first come into class, during the supper provided by the program, and during special activities held at the end of the day. He also generates a daily roster that has a blank line next to each student’s name, which he uses as a sign-out sheet as parents pick up their children.

■ Andrew Lappin, whose high school afterschool program at the Heritage School is sponsored by Teachers College of Columbia University, waits about two weeks after the school year starts before creating rosters to give students time to switch classes or drop out of the program. Teachers keep the rosters for their classes in their desks or mail boxes for the whole week; Lappin also keeps copies in a file folder. On Fridays, two student assistants collect rosters from the teachers, and on Monday Lappin and the assistants begin entering data. Then, Lappin generates a Missing Attendance Report (a feature offered by most electronic database systems) that identifies the percentage of data missing for each afterschool class, per day, week, or month. Lappin tracks down the teachers whose classes have incomplete data to find out what still needs to be entered.

#### Development of the Data System

YouthServices.net was a preexisting software and technical assistance package, so TASC did not need to develop the system. Rollout occurred slowly after a one-year demonstration run by the system’s developer. Twenty TASC

sites piloted YouthServices.net in 2001, and it expanded to another 40 sites in 2002. All TASC sites are expected to be online in the 2003-04 school year.

The phased rollout gave both sites and TASC some time to work out the kinks. Observes Lappin, who is a physics teacher and former mechanical engineer, “It even took me a while to get up to snuff with the program.... When we first started, it was harder to create classes [in the system] because I had no programming experience. We didn’t call a math class ‘math,’ for example, we had to call it ‘M\$1’ or ‘M\$B.’ I didn’t know how those codes corresponded to the classes I knew. Now [after adjustments to the system], I can use my own labels instead of their codes. The system is much more language-based now, whereas before it was symbol-based.”

### Using Data

Rahan Uddin and YouthServices.net generate three weekly reports for the TASC program officers, president, and other key leaders. The primary purpose of the reports is to support operations management. Staff and directors examine the reports individually to see if their sites are reaching enrollment and attendance targets. If they aren’t, especially as the school year gets into full swing, TASC program officers will intervene with site directors. If by mid-year a site is still not meeting projected enrollment, TASC will adjust the target to a more realistic number and reduce the site’s budget allocation. Sites that are exceeding enrollment targets and maintaining high daily attendance rates usually get a budget increase.

The first weekly report presents the number of days each program has been open that year, the program’s enrollment rate, the attendance rate, and the number of days for which data are missing. TASC uses these reports not only to assess participation levels but as signs of possible management problems. For example, if TASC program officers

notice that any site is open less than the number of days school has been open, they will discuss with the site staff reasons for the closure (or for incomplete data) and encourage the director to remain open every regular school day.

The second report presents similar data grouped by elementary, middle (or combined elementary/middle), or high school. It gives each group’s enrollment rate, attendance rate based on targeted enrollment, and actual head count.

The third report is a four-week history for each site, which provides a “snapshot” of trends in enrollment and attendance. This report is likely to be phased out under the new system, which is capable of providing such analyses on demand.

**“At one point I had to give a survey and I wanted to pick kids who had attended at least 100 days. I generated a query and found all kids whose attendance totals were in three digits...Sometimes I want to do things like figure out how many children receive public assistance, or learn who is bused and who gets to walk home. It isn’t the simplest thing to create queries on your own, but YouthServices is always willing to help.”**

*—Hugo Fernandez, TASC site director*

In past years, TASC consultants generated the reports from the raw data in the system. Beginning in 2003, the developers of YouthServices.net created a tool that TASC can use to generate the reports in-house.

TASC asks site directors to periodically run a Missing TASC-Required Data Report to identify the type and amount of data missing for each student. Those data include the elements required for TASC’s invoices to the Department of Youth and Child Development, such as valid Board of Education identification numbers and enrollment forms on file. Site directors may also generate their own reports of

average daily attendance, number of days attended by each participant, attendance for specific populations (e.g., all girls), and attendance totals by date. For each report, the user can set the specified timeframe.

Lappin, for example, might look at attendance patterns by ZIP Code. His school is in East Harlem, but a significant number of students come from Washington Heights, Brooklyn, and Queens. “I can look to see if the kids from Brooklyn have been attending regularly by punching in their ZIP Code. If they’re not, I can ask them why. Maybe it takes too long to get here by subway.”

### COSTS

Shifting from the Excel format to YouthServices.net imposed startup, licensing, and training costs on TASC (see p. 24 for information on typical YouthServices.net prices, provided by CitySpan Technologies). Since the program is Web-based, it requires access to a computer and the Internet. TASC provided one laptop computer to each site, but Uddin points out that many site directors can also access the Internet in school libraries, school computer labs, their sponsoring community agency, or even their homes.

Now that TASC can generate its own data reports, Uddin expects the cost of using data to be lower than in previous years, when consultants had to be hired for every programming need. In previous years, it was not unusual to spend about \$175,000 on data programming for 120 to 130 sites.

After the initial student information has been entered, the system’s cost in terms of personnel time is minimal. Fernandez estimates that it takes about five minutes to enter information for each new child, assuming the user is fairly computer-literate. That translates into about two days of data entry for a project with 200 participants. It then takes an experienced user about 10

minutes to print rosters and another hour to input the attendance once a week. (This does not include the time it takes to take daily attendance.)

## ISSUES AND CHALLENGES

**Keeping records up to date.** With all that site directors and their staff members need to do onsite, it's easy for them to fall behind in entering data. Thus TASC has built an incentive into its process: If a site is 15 or more service days (three weeks) behind in submitting data, payments are withheld.

**Keeping track of rosters.** The two-stage process used by TASC—marking up rosters and then entering the data into the database—means there is potential for data to be lost between the time instructors take attendance and the time it is entered electronically, especially when data entry only occurs once a week. Site directors usually designate a place to keep the attendance sheets so they don't get lost, such as a mail box or binder.

Tracking attendance at the activity level. YouthServices.net has the capacity for users to assign a service category (e.g., academic enrichment, technology, community service) to each student grouping or activity and to track participation in more than one activity per day. TASC has not used that option yet because of concerns that it places a burden on the group workers who collect attendance data. "It's important to keep in mind what the agency's reporting needs are and also what the sites' capabilities are," Uddin says. "Do they have the necessary technology to do what we're asking? Will they likely have the staff power to do it?"

**Tracking offsite activities.** At Lappin's project and other TASC sites, athletic and gym classes occur off the school campus, which makes it harder to collect attendance data from instruc-

tors. The swimming teacher meets participants at the swimming pool, for example, and may not visit the school for several days. Lappin tries to impress on all teachers that attendance data drive the project's funding, but it is a constant effort to obtain offsite attendance data in a timely manner.

**Analyzing and interpreting data.** Although TASC leaders view their program as an everyday activity, they realize that afterschool programs are not mandatory and participants may have competing interests that cause them to miss days—especially as youth become older and make commitments to sports teams and afterschool jobs. Therefore, TASC established attendance expectations that vary according to the child's level of schooling. In elementary schools (K-5 or K-6), 70 percent of students are expected to attend a minimum of three days per week. In combined schools (K-8), 65 percent of students are expected to maintain that attendance rate. In middle schools, the proportion is 60 percent, and in high schools it drops to 50 percent. TASC takes those differing grade-level expectations into account when analyzing data within and across projects.

## OBSERVATIONS AND LESSONS

### ① For a large initiative, the Web-based system is an improvement over the simpler database, although there is still room for improvement.

Site Director Hugo Fernandez says YouthServices.net makes it much easier and faster to enter data because he can choose to indicate only the students who are absent, rather than having to enter either presence or absence for every child. He also likes having the system on the Web rather than relying on email or postal services to send data to and from TASC's headquarters; that increases the likelihood that data will be kept current, he says.

Lappin also likes the system, although he's eager to add additional data elements—such as the type of music that each student likes. "I'd love to be able to generate a report of all the kids who are into rap so I can tell them when a great rap artist is coming to visit," he says.

Both TASC directors say their system would also work for a smaller initiative or a single site, although it might not be worth the data entry time for a small program whose director knows all the participants personally. When asked whether such a system requires an intermediary like TASC to provide staff time and assistance, Uddin says that a full-time administrator is unnecessary as long as site directors receive training in how to use the system and guidance on their responsibilities for entering data and generating reports.

### ② Keep it simple.

Project staff won't necessarily embrace all of the bells and whistles that appeal to program designers and evaluators, Uddin cautions:

"They may just be focused on getting the basic data into the system, and you have to understand that when you're developing the system so you don't go overboard. Do they have a staff person dedicated to doing this type of thing, or will one staff person or even the site coordinator be taking time out to do [data collection and entry]? What is the end user's knowledge of computers and databases? We tried to make our system look simple and friendly; we gave it nice colors so people wouldn't be intimidated."

### ③ Take time to troubleshoot data discrepancies.

For accountability (and liability) reasons, it is helpful to know whether a student who fails to show up for afterschool activities was absent or present during the school day. As soon as the daily rosters are completed, Fernandez



has a staff person check whether the students missing that day had attended school. If they did, the staff person immediately calls the child's family member to report the child's absence and find out what happened. Fernandez also has the school's main office generate a list of children who were absent during the school day, and he compares it to his list of attendees to see if any afterschool participants skipped the school day.

#### **④ Be patient.**

The process of entering initial data for every student can be time-consuming and tedious, but the effort pays off. Lappin hires two senior students to help with data entry. (To address confidentiality concerns, he selects top academic performers and screens them carefully. They do not have access to the system password and are not allowed to work on the database when Lappin is not in the room.)

#### **⑤ Build trust for how the data will be used.**

Lappin, who has entered into YouthServices all of the student data from his project's intake form and the school's own hard-copy records, meets privately with each afterschool student during the year to show him or her what personal data are in the system. He asks for corrections and also whether it is acceptable to include all of the data. "The school is extremely diverse culturally, and some cultures don't like giving out information, especially about Social Security numbers and household income," Lappin notes.

## **Linking Afterschool Attendance Data to Students' School Records**

### **JEFFERSON COUNTY (KY) PUBLIC SCHOOLS**

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#### **CONTEXT**

Jefferson County Public Schools (JCPS), which serves 97,000 children and youth through 175 schools, is the 27th largest school district in the United States. In 2001, school officials became interested in learning more about the connections between student achievement and the experiences that children have out of school. What community activities are children participating in, especially those students who do or don't perform well in school? How might community experiences be enhanced for students who are struggling in school?

"We wanted to know if afterschool participation makes a difference for kids in school," explains Deputy Superintendent Martin Bell. "From the time a child is born until he or she graduates from high school, the school system has them 13 percent of the hours they're awake. [For] 87 percent of the time, they've been at home, at church, at a Boys & Girls Club, on street corners."

The curiosity was driven in part by Superintendent Stephen Daschner, whose background in academic research infused JCPS with the sense that "if the data don't support it, it isn't true." JCPS also had collaborated for 10 years with the city departments of family and child protective services, health and mental health, and drug abuse treatment. Their collective effort to make services more efficient and to improve family outcomes laid a foundation for sharing data across service systems.

JCPS administrators began conversations about collecting and sharing data with the heads of several community organizations, including the YMCA, United Way, and Salvation Army Youth

Centers (which operate Boys & Girls Clubs), and with city officials.

Don Shaw, executive director of the Salvation Army Boys & Girls Clubs, responded immediately. He was already tracking the afterschool participation of 5,000 children and youth in his clubs, and he thought it would help immensely if community programs had centralized access to participants' school attendance, test scores, and disciplinary actions. "We were going from school to school to collect the data by hand," Shaw recalls.

The Boys & Girls Clubs were using KidTrax swipe cards and software, developed by Phoenix-based nFocus Software, to track student attendance, and Shaw recommended the system to Bell. After investigating the system, Bell and his partners concluded that KidTrax offered the simplicity, flexibility, and data accuracy they needed.

By fall 2003, about 25 afterschool programs—including churches, community schools, and Boys & Girls Clubs—were using KidTrax and specially developed "middleware" to link afterschool and school data. The city has begun requiring youth-serving organizations that receive city funds for afterschool programs to adopt KidTrax, and planners expect that ultimately an estimated 300 programs will feed data into the system.

#### **THE STRATEGY**

##### **Data Collection**

KidTrax uses swipe cards to collect data on individual students and their activities. Students receive identification cards, known in Louisville as "city cards," that contain unique barcodes. They present the cards to electronic scanners as they enter and exit their afterschool program each day. The data collected automatically by the scanners are housed in a database on the school system's server.

The afterschool programs' database

includes each student's name, birthdate, emergency contact information, grade in school, afterschool attendance record, sex, race/ethnicity, and annual household income. Using "middleware" created for JCPS, programs can download other information on students from the school system's database, including a student's grade point average, test scores, school attendance, and suspensions and disciplinary referrals.

### Developing the Data System

JCPS leaders' interest in afterschool attendance data was sparked in part by a national conference on afterschool programs convened in Denver, Colorado by the Academy for Educational Development. Bell and others from Louisville who attended the conference were asked to identify the afterschool outcomes they would like to measure. After a day and a half discussing the topic with representatives from city and county government, the private sector, and the school system, the Louisville team came up with a handful of outcomes that all afterschool programs ought to be focused on, including improved school attendance, self-discipline, school performance, and connections to a caring adult.

"We came back from that conference and put together a working group to figure out how to measure the outcomes," Bell recalls. Key participants included Bell and Shaw, the president of the Urban League, the city's deputy mayor, and the president of Metro United Way.

One of the first things team members realized was that they needed a centralized, easily accessible place for the data. The school system's data warehouse seemed like a good option, because it already contained all the data on student achievement.

The next question was how to match data on afterschool participation with school data to see if school outcomes were affected. "We had to know who was participating in these programs,"

Bell says. "We invited other programs in to look at our indicators and outcomes, and we offered to make our data available to them in exchange." Then the work group began looking for software that could match the data from multiple databases and ensure they all pertained to the same children.

Work group members began talking to United Parcel Service administrators, on the assumption that "if you could track a package you could track a kid." That piqued their interest in electronic scanning methods, which ultimately led to the selection of KidTrax.

The school system, which was footing the bill for software development, began looking for someone to develop middleware linking KidTrax with the school database. After balking at estimates of \$300,000 to \$400,000, planners learned from a UPS contact that the computer applications class at the University of Louisville sometimes took on special projects at no charge. Two professors agreed to lead the software development project, and soon students were meeting with representatives of community organizations and agencies to understand the system requirements. Then the aspiring programmers divided into four software "companies," each of which would develop software and try to "sell" the database work group on their approach. The university students' culminating project involved producing a skeleton program and a marketing plan. After hearing the presentations, the work group selected one of the plans (and ultimately hired one of its developers to the school district's full-time technology resource staff).

The middleware created by the university students is a point-and-click system called Connectedness Analysis Reporting System (CARS). It enables users to query the schools' database and format the results in a useful format. For about \$4,000, KidTrax developer nFocus Software wrote a bridge between CARS and the school district's data warehouse.

JCPS piloted the new system at six Boys & Girls Clubs and six community schools. After ironing out a few glitches in uploading data from the sites to the school database, they expanded the system to all youth-serving organizations that had purchased KidTrax software and scanners.

### Using Data

This system is used for analyses at many levels: of individual students, groups of students, individual programs, and across programs. Findings are used to identify patterns and to trigger interventions. A student whose grades are slipping and afterschool attendance is erratic may get a home visit. Or the Salvation Army's Don Shaw might "drill down" through the middleware to learn "how many kids had attendance of 90 percent or more for the year at a specific Boys & Girls club or at a certain grade level."

One of Shaw's recent analyses revealed that reading scores were slipping among eleventh-graders at one site. Shaw urged the site director to implement a daily tutoring program in reading skills, and the students' grades have picked up. "Those eleventh-graders could have gone on and on, and we would never have known about their poor attendance," Shaw notes. "[This system] allows us to do so much at the organizational level to correct problems before they get so bad you can't correct them, because I could check the data daily if I wanted to."

### COSTS

Participating organizations must purchase a KidTrax software license and scanner. (The school system underwrites those costs for afterschool sites located in public schools.) The KidTrax hardware, software license, and technical support cost about \$2,200 to \$2,500 per site. Every site also needs computer and Internet access, although the system was designed to operate with a connec-

tion as slow as a 56K dial-up. JCPS does not charge users for CARS or for access to the public schools' database.

Of the estimated 300 youth-serving agencies in Louisville, about half are very small organizations with budgets of an estimated \$30,000 to \$40,000 per year. For those that must purchase a computer in addition to the software and scanner, the cost of participating in this system may be prohibitive.

The use of swipe cards does make some procedures less time-consuming and therefore less costly, however. When a student enrolls in afterschool activities, program staff no longer needs to conduct a lengthy intake process. The person entering data simply types in the student's name and the relevant information appears onscreen.

## ISSUES AND CHALLENGES

**Scanner logistics.** The scanning method of attendance-taking requires that all participants flow through a single point of entry and exit, unless the facility owns more than one scanner. That wasn't a problem for Boys & Girls Clubs, which are set up with one front desk, but schools had to designate one scanning spot and get all participants to use it properly.

**Training.** Many frontline staff of community organizations lack computer savvy—some community school coordinators, for instance, had never turned on a computer—and had to be taught how to oversee the card scanning process. KidTrax provided special training on the system for school system and community organization staff, and one of the students who developed CARS trained users on the middleware application.

**The shock of true numbers.** Many nonprofit organizations rightfully fear that accurate attendance data may reveal they're not serving as large a population as everyone thought they were.

"Our organization has been around about 65 years and we've always thought we're doing a good job, but this thing was going to be pretty darn accurate. There was going to be no way to fudge numbers!" recalls Shaw. His program, which had been estimated to serve about 5,300 children, turned out to reach about 4,800 after the more accurate data collection system eliminated duplicated counts.

**Organizational confidentiality.** JCPS addressed the community organizations' concerns about confidentiality by ensuring that users have access only to their own program's data unless the data are aggregated to the district level. Unlike other jurisdictions, the JCPS school system was not reluctant to share its data broadly. "Our superintendent is very data driven, and he opened the doors," says Shaw. And after the city bought into the idea of using KidTrax in every afterschool program, other leaders have come on board, too.

**"Data can be used for good or evil, and you always worry about someone misusing or misconstruing the data. But if you are working together to benefit kids, the data will not be misused."**

—Martin Bell, Deputy Superintendent,  
Jefferson County Public Schools

**Privacy of individual students.** Using a universal card to collect data on all of a child's activities—the YMCA, Boy Scouts, school, clubs—has overtones of Big Brother, Shaw concedes. JCPS overcame that perception by allowing parents to specify if they don't want data analysts to use data on their child except at the aggregate level. Very few—perhaps one in a thousand—do so. (On the other hand, Shaw sometimes gets requests from parents who want him to examine data on their child, especially if the child seems troubled at home or in school.)

The system is also password-protected, and the director of each organization decides which of his employees can have access to the password. Each community organization has to sign an agreement that it will use the data only for its own purposes, will not give unauthorized people access to individual-level data, and will not misuse the data.

**"We're getting over [privacy] hurdles; people are seeing if you use outcome data as a tool to improve...the funders stick with you."**

—Don Shaw, Executive Director,  
Salvation Army Boys & Girls Clubs  
of Louisville

**Bugs in the system.** Opening up the school systems' database has inevitably made the system more vulnerable to electronic attacks. "All the computer viruses and worms out there have impacted our ability to operate for the last two months," notes Bell. "We've had to shut down and open up many times, and that affects our ability to provide a smooth data flow."

## OBSERVATIONS AND LESSONS

**① The openness and uniformity of Louisville's school system smoothed the way for successful data sharing.**

JCPS is described by its partners as decidedly unbureaucratic and willing to collaborate. The fact that the entire city and county is represented by only one school district is also an advantage, because it means there are fewer data systems to align and fewer turf issues to resolve when it comes to linking and sharing data.

**② Good data tracking systems don't happen overnight.**

Planners have to stay committed to the goal of managing data and keep pushing

toward it. That often means keeping key players motivated to stay at the table.

### **③ Partners must be open and honest with each other.**

At first, some community organizations were reluctant to collect data on outcomes that had potential to show they weren't making a difference. "You have to approach this work by convincing people they need data to strengthen their programs and to [communicate with] funders," Bell advises.

## **Tracking Afterschool "Encounters" Across an Entire City**

DEPARTMENT OF CHILDREN, YOUTH  
AND FAMILIES, SAN FRANCISCO

### **CONTEXT**

The San Francisco Department of Children, Youth and Families (DCYF) funds about 200 community programs that provide child care, afterschool activities, education, youth employment, and many other services to children from birth through age 17. Its grantees range from small neighborhood-based organizations to the YMCA, Boys & Girls Clubs, Beacon Initiative, and a school-based literacy program operated by community organizations in 11 neighborhoods. The amount of money DCYF gives to each grantee is based in part on the number of children, youth, or families participating in the program.

DCYF is a city department but it operates more like a public foundation. Its \$45 million budget comes from a property tax set-aside and from the city's and county's general fund allocations. Ninety-three percent of the money flows through DCYF to community-based organizations, and about \$3 million goes to other city departments that create programs for children and youth, such as the library bookmobile and satellite

health clinics that work only with youth.

In 2001, DCYF commissioned an outcome evaluation of the department from Research Development Associates, and the evaluator suggested that DCYF needed a better way of tracking child-level data. The system would do double duty as a repository for programs' intake assessment tools and for the evaluation's consumer satisfaction survey and staff and parent surveys. And the system would help DCYF fulfill its obligation to base funding decisions on evaluation data.

In 2002, DCYF began working on a Web-based, citywide data system with Mark Min of CitySpan Technologies, who three years earlier had designed the department's system for contract management, invoicing, and outcomes reporting. Almost 180 of 220 DCYF grantees now use the database, and all are expected to be online by early 2004.

### **THE STRATEGY**

#### **Data Collection**

The Web-based system tracks every encounter with every child served by every program funded by DCYF. Data elements for participants include:

- ZIP Code and address
- Ethnicity/race (with 18 options to choose from, including all Central American ethnicities)
- Age
- Type of service received, organized into 30 specified categories
- Special needs (e.g., eligibility for TANF reimbursement, parenting teen, homelessness)
- Length of service per encounter
- Intake and dropout assessment
- Consumer satisfaction survey
- Parent/caregiver survey
- Program staff survey

The system was also designed to accommodate other data that individual programs want to track for their own purposes, although DCYF is just beginning to train grantees on that option.

Program staff at each site collect and enter the data using a computer with Internet access. To reduce the burden on sites, DCYF allows people to enter encounter data either individually or for an entire group of students who all receive the same service. Sites can also *uncheck* absent students rather than checking off every student who is present. Some multi-site initiatives consolidate their data and enter it for all of their sites; others have each site submit data separately.

#### **Developing the Data System**

Previous work for DCYF had familiarized Mark Min with the department and its grantees. He had visited many program sites, and he understood both their data needs and their limitations. Min worked closely with a program officer from DCYF and evaluators at Research Development Associates, who helped to design the data tracking components that were relevant for their work.

#### **Using Data**

DCYF uses the intake and encounter data for its evaluation and annual report. Staff also use the data to ascertain the number of children served by DCYF grantees, which is one of the agency's performance measures for local government funding, and for program management purposes.

As soon as the data are entered, an email goes automatically to the appropriate DCYF program officer, reminding him or her to check the data against the site's invoice (at an aggregate level, for confidentiality reasons). The data validation process is rigorous. In order for a child to appear on an invoice, data on the child *and the staff who serve him or her* have to meet a standard that has 40 different requirements. If a child is enrolled in a program whose staff data



are missing a required element (e.g., instructor's primary language), the service is considered invalid and the child's encounter will not be counted. "It may sound extreme, but we're developing a dataset for research evaluation, and all the pieces have to be there for the research to work properly," says Min.

After checking the invoice, the program officer sends it to DCYF's fiscal staff for processing. Meanwhile, Min downloads the data into easily digestible monthly reports. DCYF staff and evaluators examine the data at the aggregate level and by grantee organization. "Whenever we do these runs, we find some incongruencies in the data—missing items or erroneous entries," says Nani Coloretti, DCYF's Director of Planning and Budget. A Data Working Group, composed of DCYF program officers, the database project manager, and a member of the evaluation team, meets weekly to monitor data quality and troubleshoot problems.

The "incongruencies" have raised some programmatic issues for DCYF. For example, will the department allow a grantee to submit an invoice if all the encounter data haven't been entered? DCYF staff don't want to undermine either the quality of their data or the solvency of their grantees. Thus, they compromised by deciding that a program must show a minimum of 15 encounters per program, per month, in order to submit an invoice. "We set the bar really low because we didn't want to cause cash flow problems for the sites, and we have other ways of monitoring quality through site visits and our technical assistance providers," Coloretti explains.

## COSTS

DCYF's encounter database was built onto an existing system, and the cost of developing the new system was wrapped into DCYF's existing contracts with CitySpan Technologies and Research

Development Associates. Those factors make it difficult to determine the exact cost of the encounter database, but it is likely more than \$100,000.

## ISSUES AND CHALLENGES

**Technology requirements.** Although DCYF's encounter database is highly automated and easy to use, many of the department's grantees are very small service providers; their only access to a computer may be at the parent organization's central office, not at the site where services are actually delivered. And frontline staff often require very basic computer training before they feel comfortable using the system. Database developers spent hours discussing whether DCYF should require small programs that lacked technology to participate in data collection and what tools the department would need to provide to them.

**"We had to weigh the cost to each program of entering the data against the potential benefit we'd get from the evaluation. What we did not have a chance to do, and hope to do in our next round of grantmaking, is get a user group to comment on [the system]."**

—Nani Coloretti, Director of Planning and Budget, Department of Children, Youth and Families

**Lower-than-expected participation figures.** Analysis of DCYF's encounter data instantly revealed that the total number of children and youth served by grantees is far fewer than was thought—about 18,000, compared with previous estimates of 50,000. DCYF leaders aren't sure what to make of the discrepancy at this point. Does it mean that sites that receive funding from many sources are only reporting the children they think DCYF is paying for? Are they serving fewer children overall than reported previously? Or is

it just taking a long time to get all participants entered into the system?

The system developer attributes the lower counts to several factors. First, DCYF's grantees are still adjusting to the new system's more strenuous data collection requirements. Programs that serve children in many different ways may be successfully capturing some, but not all, participants. As the DCYF grantees develop better methods for documenting all of their services, the participation numbers will likely go back up. Second, before the new system was put in place grantees often included informal, temporary contact with children—such as one-time presentations at schools—in their record of service encounters. Those contacts, however, did not generate the full set of data needed to qualify a participant as "valid" in the new data system (e.g., intake forms, attendance records). The exclusion of informal service recipients from the data base produced a significant drop in participation figures.

DCYF now plans to develop two counts: one that captures "fully documented services" and a separate one for "partially documented" services. Combined, these two counts are expected to bring overall service numbers back up to 50,000.

**Analysis of costs per encounter.** Research Development Associates provides DCYF with data on the cost per encounter, but those results are considered very controversial. It is impossible to tell from the data whether programs are incorporating money from other sources into their services. It is also inaccurate to compare encounters solely on the basis of amount of time invested in them, Coloretti notes.

**Confidentiality.** DCYF's database was originally intended for invoicing purposes and to make the department more efficient; it was not conceived as a repository for personal data on individual participants. As the system's role has

expanded, DCYF has had to formulate rules about who sees what data and when, to protect children's confidentiality. DCYF staff are not allowed to view individual-level data, and data are scrambled when transmitted electronically.

## OBSERVATIONS AND LESSONS

### ❶ The only way to ensure that sites submit data is to link data collection to invoice submissions.

DCYF neglected to link intake assessments to invoicing, and it now appears that some of this vital baseline data may be missing. The department now has to decide whether to “defund” the agencies that failed to collect the data.

### ❷ A mechanism for addressing data collection issues is necessary.

DCYF's evaluators and programmer have visited grantees to help them set up data collection tools, and the department has a heavily used online “Issue Tracker.” People with questions about the system—usually DCYF program officers who have been contacted by grantees—use the Issue Tracker to seek help and to review responses given to others with similar problems.

### ❸ Analysis of data helps system leaders define the scope, reach, and quality of services.

DCYF's analysis of program data has underscored the differences among services and their implications for both programming and evaluation. For example, the department supports a youth-to-youth peer talk line that receives 10,000 calls per year. That service reports a very different encounter history than a program that serves the same 100 children every day but may provide equally vital services. “We're starting to refine our definitions for what we're counting [as encounters],

and we've created a category for education, outreach, and talk line [encounters] that is separate from other services,” Coloretti says.

Furthermore, the data show that DCYF-funded programs are helping many 18- and 19-year-olds, yet the department's mandate is only to serve youth through age 17. DCYF program officers are now trying to learn how many of the older participants are actually parenting teens, whose services are covered by DCYF's scope.

Finally, the encounter data have confirmed that the racial/ethnic composition of staff in sites funded by DCYF does not match the race/ethnicity of program clients. “That [dimension] may not be important to young children, but it's important to youth to see people of the same ethnicity in leadership positions,” Coloretti notes. “I don't know that it will change right away, but I think the programs will be interested to know what we've found.”

## Collecting Afterschool Attendance and “Dosage” Data for an Evaluation THE BEACON INITIATIVE

### CONTEXT

The San Francisco Beacon Initiative, which began in 1996, is based on the Beacon model developed in New York City. Each school-based Beacon center is operated by a “lead agency”—a community-based or other nonprofit organization—that has deep roots in the community and neighborhood. A specially created oversight organization raises funds, promotes quality standards, convenes site directors and lead agency staff periodically for peer learning, and manages an evaluation.

The centers serve students in kindergarten through twelfth grade and their family members. Each center plans and implements activities inde-

pendently based on its clients' needs and interests, but all centers address five core competencies of youth development: health; arts and recreation; leadership; career development; and educational support, which encompasses such activities as academic enrichment, homework help, tutoring, and English as a Second Language.

In 2003, there were eight Beacons in San Francisco: one at an elementary school, one at a high school, and six in middle schools. Each center must serve a minimum of 600 youths per year; collectively, the centers served 5,370 youth and 1,391 adults in 2002-03. Among those participants were large populations of Chinese, Filipino, other Asian, Latino, African American, and White residents.

This profile features two Beacon centers whose data experiences illustrate both the differences that exist in a multi-site initiative and the commonalities of data users in all sites:

*The Sunset Neighborhood Beacon Center (SNBC)* provides structured afterschool programs at five locations (four schools and one storefront) on the west side of San Francisco. Its services, including afterschool programming, case management, youth leadership, community media production, and mental health services, reached 1,370 children and youth in 2002. The school-based afterschool programs had a total of about 550 participants who attended five days per week. SNBC Director Michael Funk is an experienced data user who also co-chairs the state's afterschool advisory program evaluation committee.

*Chinatown Beacon Center (CBC)* is operated by Wu Yee Children's Services, an organization that has a long history of providing child, youth, and family services to bi- or monolingual Chinese residents of Chinatown, many of whom are recent immigrants. CBC is the only Beacon center located in an elementary



school. Its focus is on services to children between kindergarten and eighth grade and child care for infants, toddlers, and preschoolers, with a special emphasis on English language development. It serves more than 700 children and 250 adults per year. Activities for adults include English as a Second Language, computer literacy, Web design, and Web-based parent education.

Data tracking was part of the San Francisco Beacon Initiative from the program's inception, primarily as a tool to collect data for the evaluation by Public/Private Ventures, which sought to link students' afterschool participation rates and dosage levels to school outcomes.

## THE STRATEGY

The San Francisco Beacon Initiative hired programmer and software designer Mark Min (CitySpan Technologies) to develop a database that Beacon centers use to track data on students' attendance (by activity) and demographic characteristics. An arrangement with the school district also enables the Beacon data system to collect data on students' school attendance and performance (although the depth of school data varies by Beacon center according to the relationship between the center's director and the principal of the host school).

### Data Collection

The required data elements in the system Min designed are relatively simple: intake information, including student's age, address, emergency contact, home school, race/ethnicity, first language; and participation information, including dates of attendance and activities attended. There are also some optional data fields, such as eligibility for public assistance. Evaluation surveys administered to students, staff, and family members can cross-reference data in the system but aren't entered into the system itself.

Parents or caregivers complete an intake form for each child upon entry into the program; because the form contains parental consents, it requires a caregiver's signature. A Beacon staff person enters the intake information into the database using a computer connected to the Internet.

After students sign up for activities, the system generates rosters for each class that are used to take attendance. At Sunset Neighborhood Beacon Centers, staff use the rosters as sign-in sheets; at Chinatown Beacon Center, instructors check off the students as present or absent. Someone at the center or the lead agency's headquarters then enters the data for each class into the Web-based system. To speed the process, data entry staff can choose an "all present" category to indicate that there were no absences.

Some centers augment the attendance tracking system with other informal methods. The Chinatown Beacon Center, for instance, holds a monthly community dinner that attracts about 250 residents. Staff use a handheld "clicker" to gauge the number of diners so they can identify changes in attendance patterns.

### Development of the Data System

The system developer worked closely with leaders of the San Francisco Beacon Initiative and evaluators from Public/Private Ventures to identify the data elements and reporting formats the system needed to encompass to serve the data needs of evaluators, program officers, and center directors. Public/Private Ventures negotiated with the school district to get access to students' school records, which enabled the evaluation to compare Beacon participants to children who didn't attend the program and to ascertain the effects produced by different levels of exposure to Beacon activities.

The system developed for the Beacon Initiative eventually became the pilot data system for all afterschool

youth programs funded by the city's Department of Children, Youth and Families (DCYF). DCYF subsequently contracted with Min to upgrade the system, making it more comprehensive and making data retrieval more flexible. In 2003, rather than similarly upgrading the original system, leaders of the Beacon Initiative decided to "migrate" their data into the DCYF system.

### Using the Data

SNBC Director Funk uses the data system to generate reports on how many children are involved in a specific category of activity, often filtering the analysis through a demographic variable. Thus he might examine the number of Latino girls involved in youth leadership activities, or the number of third-grade boys engaged in arts and recreation. He also compares the center's average daily attendance rate from month to month, and compares the demographic breakdown of SNBC participants with the demographic characteristics of the community at large, to see if the program is attracting its target population.

Chinatown Beacon Director Ben Wong uses the system to generate monthly reports that help him track changes in the program; his staff use it mostly to retrieve students' emergency contact information or to get addresses of family members they want to notify of upcoming events. "It is important for us to know what attendance looks like, globally, so when someone—especially a funder—asks how many kids we see a year, we know," Wong explains. "We also calculate average daily attendance because one of our goals is to improve the frequency of young people's attendance." Understanding that interactions with caring adults are a factor in healthy youth development, Wong looks to see if the average daily attendance for youths is increasing. "Ideally, we'd like to be able to follow up with kids who haven't shown up for a while," he says.

Wong finds it more useful to review

average daily attendance than to look at total numbers of children served, because he's looking for patterns in attendance—especially increases in the proportion of children who come to the center on a regular basis. He also looks for attendance patterns by children's sex, ZIP Code, and age. "[Those data] help me in giving accurate descriptions of what this agency is, what it does, what it looks and feels like. It helps in our grant proposals, and definitely in outreach to families," Wong says. The data also give Wong early warning on potential service gaps. An influx in 14-year-old participants, for instance, indicates that planners had better prepare for next year's 15-year-olds.

Funk likes to examine attendance data by activity. Although the system captures participation by activity, data on dosage levels per activity are not easy to retrieve through a simple query. For example, the SNBC middle-school program offers project-based activities, such as film making, from 4 to 5 p.m. every day. If the database indicates that a child attended on Tuesday during project-based activities, one can assume the child received one hour of dosage, but the exact amount of time the child was present is not in the system. (This issue may be resolved as the Beacon Initiative begins using the more up-to-date DCYF data system.)

## COSTS

The main cost to Beacon centers is for data entry. Each of the centers profiled here has one part-time staff person dedicated to data entry. Funk's assistant puts in about 35 hours a week to enter data from five sites; Wong's assistant spends 15 to 20 hours per week and earns about \$12 an hour. "Getting everyone to fill out registration forms and attendance sheets and fill in missing data takes a lot of time but the burden is spread around to many instructors," Wong notes.

## ISSUES AND CHALLENGES

### *Understanding how to use the system.*

Users of any data system need to understand how each data element is defined and how to read the reports generated from queries. "You may print a Unit of Service Report and know you've entered the data one way, but when you print it out it doesn't look the way you expected," explains Wong. "For example, a class may not print as a class unless you've entered information on the instructor and time of day. Or you may have completed that portion of the screen but it doesn't print out right. And the word 'unduplicated'—does it mean for this class, for this site, for this month, or for this year? There's a lot of learning how to use the system to make it do what you want."

**"It's really important for organizations to be able to measure their impact—it's the key to being sustainable. But it can be very intimidating for nonprofits to think about developing [a data tracking system]. For people drawn into the nonprofit field, it's not typically their forte."**

—Virginia Witt, Executive Director,  
San Francisco Beacon Initiative

***Ensuring that data are entered correctly.*** Missing data can cause the system to generate information that users might misinterpret. Centralizing all data entry with one person helps to build proficiency with the system and reduce the number of errors, Wong advised.

***Two-stage data collection.*** Like many systems featured in this report, the Beacon Initiative collects data in two stages: by hand on the front lines of service, followed by entry into an electronic format. At sites that serve more than 600 participants a day, entering every record twice is burdensome. Funk's centers have considered converting to a wireless system (using handheld

or tablet computers) that would eliminate the second step, which he believes would save enough money to justify the cost of the new system.

***Tracking unusual services.*** Some of the most intensive services that Beacons provide, especially those involving mental health, are the most difficult to track. "For kids who are in structured clubs or projects, there's a predictable rhythm to services," notes Funk. "But for a young person in case management, whose case manager hangs out with the kids [in informal settings], it's harder to capture." Even though the Beacon Initiative designed a password-protected area of the database for storing records that are considered confidential, the problem of how to reliably collect those data remains unsolved.

***Extracting data from the system.*** Funk, who has more technological savvy than the average system user, has been frustrated by his efforts to use the Beacon system for strategic planning. He often wants to formulate his own queries rather than relying on the packaged reporting formats—to learn how many participants in the afterschool DJ club are also involved in case management through the juvenile justice system, for example. As the Beacon system migrates to the more modern DCYF system, this problem may be resolved.

## OBSERVATIONS AND LESSONS

### ① People need an incentive to collect and enter data.

Everyone agrees that people need a significant reason to collect and turn in attendance data or they won't make the effort. Funk stipulates that his program instructors have to turn in their attendance sheets before they can be paid. At the program level, the state of California recently acted to tie funding for after-

school education and safety programs to average daily attendance, at least for elementary and middle schools.

**② Web-based systems are easy to access and use.**

Users of the Beacon system generally agree that it is easy to use, and because it is Web-based it can be accessed from a variety of convenient locations. “If we’re behind in entering data, I can put three people on the job in the computer lab, or someone can work on it from home,” Funk says. “When it comes time for software upgrades, the process is all centralized. And when evaluators access the data, we don’t have to do anything [at individual sites].”

**③ A data partnership with the school district is crucial if you want to link attendance to educational outcomes.**

Afterschool programs that have an educational component should collaborate with the local school district(s) on data collection and sharing so that both entities understand students’ needs and outcomes and so afterschool providers have all of the tools they need to support what happens in school.

**④ One size does not fit all when it comes to data systems.**

The Beacon Initiative is complex, because the centers offer an array of activities and have a large number of stakeholders who want to know about results in their area of interest. Thus the Beacon system has to collect a broad menu of data. Other programs may have much more limited data needs. “[Designing a system] is about what you and your stakeholders need to know to run programs more effectively,” says initiative director Virginia Witt.

“Systems have an impact on everything around them,” adds Wong. As the Beacons move their data onto the DCYF system, for example, they will need to expand data collection to satisfy that sys-

tem’s required data elements. “We don’t have a structure for tracking interactions with participants every 15 minutes in the Beacons,” Wong says. “That [requirement] in effect changes our [data collection] forms, because we’ve designed them around what’s capturable and storable [in our current system].”

**⑤ The people who are directly responsible for data collection should help design the system.**

Frontline program staff can give system designers a realistic sense of what data can and can’t be collected—and a more comprehensive perspective on participants’ experiences. Data experts “want to know that a kid moved from tutoring to basketball to arts” over the course of a day, notes Wong. “Program people don’t think that way; we try to think more holistically. In open environments like a Beacon center, there may be many things going on and a young person may choose to go to several activities for five or 10 minutes or half an hour. Life doesn’t happen in 15-minute, linear increments.”

## RESEARCH AND INFORMATION

### Afterschool Alliance

1616 H St. NW  
Washington, DC 20006  
(202) 347-1022  
[www.afterschoolalliance.org](http://www.afterschoolalliance.org)

### Afterschool.gov

Room 7104  
1800 F St. NW  
Washington, DC 20405  
(202) 208-1309  
[www.afterschool.gov](http://www.afterschool.gov)

### Fight Crime: Invest in Kids

Suite 240  
2000 P St. NW  
Washington, DC 20036  
(202) 776-0027  
[www.fightcrime.org](http://www.fightcrime.org)

### Harvard Family Research Project

Harvard Graduate School of Education  
3 Garden St.  
Cambridge, MA 02138  
(617) 495-9108  
[www.gse.harvard.edu](http://www.gse.harvard.edu)

### National Association of Elementary School Principals (NAESP)

1615 Duke St.  
Alexandria, VA 22314  
(800) 386-2377  
[www.naesp.org](http://www.naesp.org)

### National Institute on Out-Of-School Time

106 Central St.  
Wellesley, MA 02481  
(781) 283-2547  
[www.niost.org](http://www.niost.org)

### National PTA

Suite 2100  
330 N. Wabash Ave.  
Chicago, IL 60611  
(800) 307-4782  
[www.pta.org](http://www.pta.org)

### Wisconsin Center for Education Research

School of Education  
University of Wisconsin-Madison  
Suite 785  
1025 West Johnson St.  
Madison, WI 53706  
(608) 263-4200  
[www.wcer.wisc.edu](http://www.wcer.wisc.edu)

## ATTENDANCE TRACKING SYSTEMS

### CitySpan Technologies (YouthServices.net)

2437 Durant Ave.  
Suite 206  
Berkeley, CA 94704  
(510) 665-1702  
[info@cityspan.com](mailto:info@cityspan.com)

### nFocus Software (KidTrax)

2400 E. Arizona Biltmore Circle  
Building One, Suite 1170  
Phoenix, AZ 85016  
(602) 954-9557  
[www.nFocus.com](http://www.nFocus.com)

### Quality School Portfolio (QSP)

National Center for Research on Evaluation, Standards, and Student Testing  
Margaret Heritage, Program Director  
University of California-Los Angeles  
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