The Youth Data Archive:
Integrating Data to Assess Social Settings in a Societal Sector Framework

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The Youth Data Archive, a project of the John W. Gardner Center at Stanford University, provides integrated data from public and private youth-serving organizations to inform analyses at the individual, program setting and community levels. Currently working in three communities and two counties, the Youth Data Archive (YDA) links individual-level administrative data from schools and public agencies such as child welfare, health services and probation with program data from youth development programs offered through community-based youth organizations (CBYOs), as well as other data sources such as survey data or qualitative studies. In doing so, the YDA aims to support policymakers, practitioners, community members and others in making positive changes in the social settings—the programs, out-of-school activities, institutional contexts—within and through which youth move. At the same time, the YDA is also an instrument to measure the settings themselves.

The overarching theory of change behind the YDA posits that different and better information about the social settings and resources available to youth— and their associated outcomes— will foster better choices and decisions about how to improve those individual and collective settings. The YDA's theory of change has four conceptual building blocks:

1. To successfully change youth development settings, one must account for their embedded context.
2. The relevant context for youth development programs extends to the entire societal sector.[1]

[1] A societal sector framework, as developed by Scott and Meyer (1991), emphasizes function over geography or bureaucratic affiliation; it takes the wider interorganizational systems implicated in providing a given type of service—in this instance, programs and services for youth.

3. Data integration can measure settings at the individual level and provide rich contextual information at the community levels, illuminating the importance of societal sector in determining the success of youth and supporting value-added assessment of individual programs.

4. Setting change as the result of data integration is achieved not through the data itself but rather by creating a structure for building relationships and knowledge.

In this chapter, we first expand on these four tenets, provide details on the YDA's data integration and data use strategies. We close with a review of the current status of the YDA: What has been accomplished so far? What are challenges to the YDA's development and effectiveness? What are next steps and promising directions?

Importance of Context for Youth Development Settings

The field of youth development research has made enormous progress in defining the features of positive developmental settings for youth. As the National Research Council's 2002 *Community Programs to Promote Youth Development* details, empirical and theoretical evidence links features of social settings (safety, appropriate structure, supportive relationships, etc.) to youth development outcomes (physical, intellectual, psychological/ emotional and social) and to positive societal outcomes for youth (academic achievement, employment, civic engagement, non-involvement in crime) (Eccles & Gootman, 2002). However, much less is known about how to foster and sustain change in those settings.

The Youth Data Archive takes the perspective that strategies to change settings must account for their *embedded contexts.* That is, even successful efforts to change the quality and outcomes of youth programs and organizations are bound to fall short—in terms of their sustainability, replicability and ability to maximize cumulative benefits—if they focus *only* on internal processes, measures and opportunities. Youth-serving organizations are embedded within multiple regulatory, normative and policy settings—environments that affect their missions, resources, political support and viability. These broader system environments are

extremely complex, reflecting the multiple goals of the organizations, the patchwork and unstable funding strategies, dynamic political environments and complicated relationships with upstream and downstream organizations. Viewing the social settings within and through which youth move as part of a larger system of resources and opportunities carries important implications both for analysis and efforts to change those settings.

Considering interrelationships among various youth development assets, Tom Cook and colleagues (2002) find small, independent effects of neighborhoods, nuclear families, friendship groups and schools on early adolescent development and provide support for the conclusion that "more is better"—the more developmentally superior contexts available to young people, the better their life chances (see also Eccles & Gootman, 2002). However, Cook et al. also conclude that "Contexts really matter in determining how young people's lives develop, but they do so cumulatively more than singly" and that "pan-contextual improvement requires pan-contextual measures" (p. 1306).[2] Practitioners and others working with youth appreciate that while more is better, nonetheless the nature and quality of opportunities available to young people matter; not all Boys and Girls Clubs, after school programs, sports teams, tutoring efforts or other community-based youth organizations have equally effective offerings and appeal to young people either in terms of content or their operations (Eccles & Gootman, 2002; McLaughlin, Irby & Langman, 1994).

Just as other programs in the same environment can provide cumulative benefits, the context also can create challenges or barriers that are beyond the control of an individual program. High stakes education accountability policies, for instance, with their single-minded focus on academic achievement frustrate efforts to provide school-linked resources for programs

[2] In contrast to Cook et al.'s conclusion about linearity and additivity, Talbert and McLaughlin (1999) find that aspects of the education institutional environment are not additive, but rather interact in ways that mean the same factor acts as a resource at one school site but has no or negative effects for another school site operating in the same district context.

aimed at social, emotional or physical outcomes. Community-based organizations in many communities may fail to reach participation goals not for reasons of program quality, but because inadequate local policing and transportation policies discourage teens' attendance. In both of these instances, the character and capacity of social settings serving youth are constrained by aspects of their broader institutional contexts.

The goal of changing social settings in ways that benefit youth, then, presents a challenge not only in understanding how particular projects and programs can be made more effective on their own terms, but also in understanding how particular projects and programs can be made more effective as part of a larger system of resources and opportunities for youth—that is, how to change social settings in ways that make them add up to more for young people *and* facilitate the operation of any single program.

A Societal Sector Framework

The Youth Data Archive adopts a *societal sector framework* as the strategy for treating settings' embedded contexts as questions for research and unit of analysis. A societal sector framework, as developed by Scott and Meyer (1991), emphasizes function over geography or bureaucratic affiliation; it takes the wider interorganizational systems implicated in providing a given type of service—in this instance, programs and services for youth. This perspective differs from frameworks that group organizations seen as similar in form or focus—for example, schools, CBYOs, health services—or models that emphasize formal linkages, such as categorical policy streams, or informal networks such as professional affiliations. It considers other forces at work in society and urges researchers to look outside the formal policy system to nonformal relationships that extend across categorical or functional boundaries—such as those with non-governmental organizations, professional organizations or the private sector— and pursue

lessons learned about relationships, contexts and outcomes, while also tracking opportunities associated with the new actors and associations revealed by this broader frame.

For the youth development sector, this approach features the complexity of relationships across all actors and organizations—such as other youth-serving organizations, schools, social service agencies, child protective services, civic leaders and community agencies. It takes both a vertical and a horizontal view of youth-serving organizations and the agencies with which they interact. A vertical assessment looks at linkages between the "top" of the relevant policy system to consider in what ways and with what consequences macro-level programs and policies make their way to the "bottom" or community level. A horizontal view focuses on the interrelationships among youth-serving actors at a particular policy level—neighborhood, community, county or state. Questions prompted by this framework include, for example: How are program resources or outcomes enhanced or constrained by decisions made at the school district level, priorities of county government or local political support? Are effective collaborations apparent?

Assessing the contribution of a particular youth organization or other youth resource within a societal sector framework moves away from a "main effects" or "impact" approach to program evaluation to consider the *value added* of an organization within the context of other opportunities and resources for youth. For example, what is the value added as measured by youth development outcomes of differently implemented after school programs? Do some program designs seem particularly beneficial for youth from different cultural, ethnic or socio-economic backgrounds? In combination with youth participation in such youth-serving institutions as health clinics? Or are they most effective when other resources such as a neighborhood policing program also are present? Locating youth-serving organizations in their

broader institutional environment mitigates risks of under- or over-estimating program effects because youth outcomes can be understood in the context of broader opportunities and resources.

Despite the enormous value of a societal perspective as a strategy to advance the emerging field of youth development, the programs, organizations and agencies in this sector have been famously Balkanized in their operation and relationships. Major public players in the youth policy arena —including organizations in education, health care, social services, and juvenile justice—comprise well-recognized and stable systems, and they largely operate in splendid isolation from one another. At the CBYO level, agencies may be closely linked with each of the government systems, but also provide services quite different from those offered through government agencies. In many cases, the same CBYO may contract with several government agencies for similar youth development activities, re-packaged as promoting health, education, or crime prevention as required for the funding stream.

Between the government and community-based providers targeting youth, we find both the norms of practice and services provided often are incompatible and frequently conflict. Beginning in the late 1980s, both youth policy and research on adolescent development entered a new phase, one that departed from a narrow emphasis on remedying "deficits" and uncoordinated institutional supports to focus on the broader context of healthy development and enhanced integration of youth services (Pittman, Irby & Ferber, 2000). Reformers experienced in working with young people argued that the needs of youth are complex and interwoven and contended that policies and programs intended to benefit them should strive for continuity across sectors (such as education, social service and juvenile justice), organizations and age groups. Further, reformers pushed for policies that featured a broadened conception of youth and youth services rather than a focus on "fixing problems." Programs and policies consistent with a youth development point of view acknowledge the broader social and institutional contexts that

actively influence individual outcomes and development. Service providers such as community-based youth organizations typically see their mission in positive, youth development terms.

While local public partners often embrace elements of the positive youth development perspective, the requirements imposed by their vertical position – in terms of both funding and performance expectations –lead to a focus on deficits. In particular, publicly-funded youth agencies face increasing pressures to meet performance outcomes, where the mandated outcomes of interest are generally framed as avoiding or correcting negative results (e.g., reducing the number of teen pregnancies, the share of children not proficient on test scores, and recidivism in juvenile justice) As local budgets are squeezed, a move toward positive youth development strategies may appear too distant from the required outcomes. Moreover, as part of their larger vertical systems, public agency staff are professionally trained and affiliated within those separate systems, as health professionals, social workers, or educators.

Conceptually, professionally and pragmatically then, many actors in the youth arena do not see themselves as part of the same sector. Thus, advocates of a societal perspective face the extraordinarily difficult task of mobilizing support across fractured, segmented interests. The Gardner Center Youth Data Archive is built on the belief that data integration offers an opportunity to address the sometimes conflicting aims of youth serving organizations and to make the societal perspective meaningful for them.

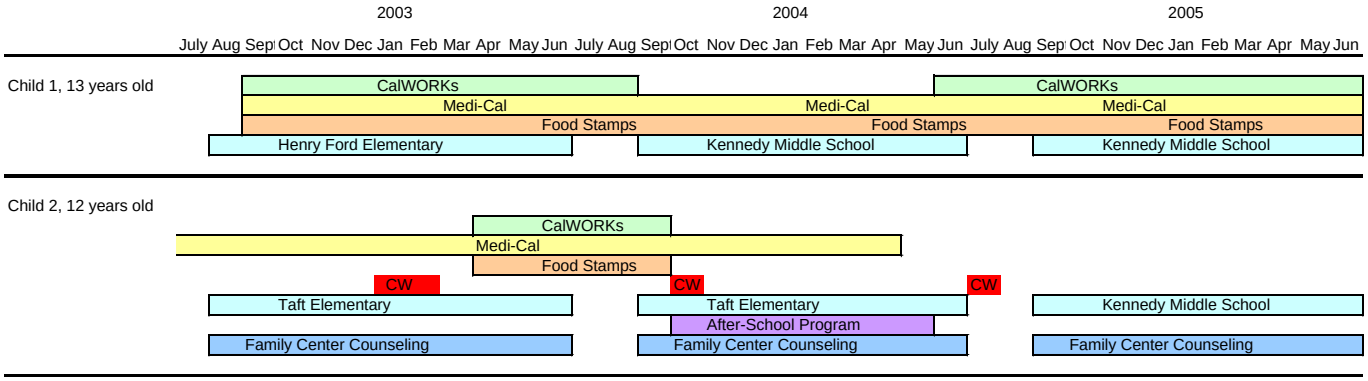
Data Integration to Measure Settings and Contexts

The YDA brings a societal sector perspective to the concept of data integration, using integrated data to encourage community-level responsibility and accountability for resources, opportunities and youth outcomes through coherent, mutually reinforcing policies and programs. By matching individual-level data across programs and over time, we create "event histories" for

children and youth that offer a much richer context for understanding participation in any given program.

To illustrate the character and measurement value of such integrated data, Figure 1 draws upon the YDA to present simplified event histories for two children who attended the same middle school in 2005. Based solely on the information for 2005, Child 2 appears less needy than Child 1, who is receiving food stamps, Medicaid and welfare. If we wanted to understand the impact of the family counseling on test scores for children in middle school, however, we might get a very different understanding of Child 2 if we took into account the fact that over the previous two years he was the subject of three alleged instances of child abuse and that his family was intermittently on and off public assistance throughout his childhood. On the other hand, his child welfare caseworker may have no idea that he is receiving services through a family center or that he lost connection with his afterschool program when he moved to middle school.

Figure 1: Example Event Histories



Such event histories offer a rich strategy to measure programs and their contexts. First, in the short run, the YDA helps community partners understand the full set of services and opportunities for youth in a community. In particular, it allows us to determine whether multiple agencies are serving the same youth, the paths they take to reach services, and how services can be better coordinated. In addition, it can be used to find gaps in service by types of service,

youth characteristics and needs, and geography. Second, over time, the YDA will allow us to measure the cumulative effects of community youth development programs and services on youth outcomes, accounting for the complex dynamics of youth participation in public and private programs. Third, where we can document key features of programs' structures or approaches, such as their reliance on such tools as the Bay Area's Community Network for Youth Development's Framework for Practice, or link survey and observational data on youth development outcomes, the integrated data can document the empirical connections between youth development outcomes and other outcomes such as academic achievement, youth employment or juvenile justice.

For an individual youth organization, the YDA can help in planning, programming and evaluation. Take, for example, a local Boys and Girls Club. The YDA can identify where children of the target age group live, what languages they speak, what activities are currently available to them, and which children are at risk in school or in foster care and not being reached by any community programs. For programming purposes, the YDA can help point to best practices by determining how programs with similar content – such as science programs – are linked to outcomes like high school completion, and whether programs with specific features like higher adult to child ratios fare compared to other similar programs. This naturally extends to the club's own evaluation, but it reduces the burden for the program by capturing information such as school attendance before and after participation, and leaving the program's own evaluation to focus on collection of data not available in other systems, such youth leadership.

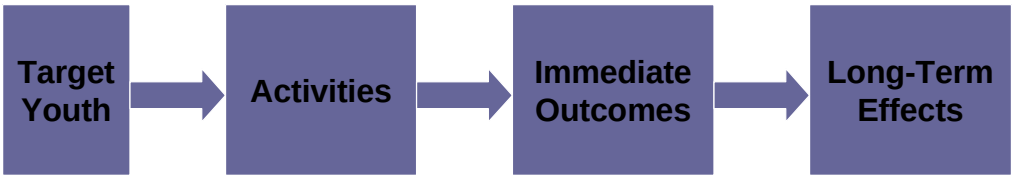
At the same time, if we take outcomes observed in administrative data –such as reduced recidivism in juvenile justice or greater rates of high school graduation – as long-term outcomes, we can use the YDA to expand from a simple logic model for one program, to a richer

examination of a sequence of programs or a comparison across different programs that differ in their youth development approaches and outcomes, as seen in Figure 2.

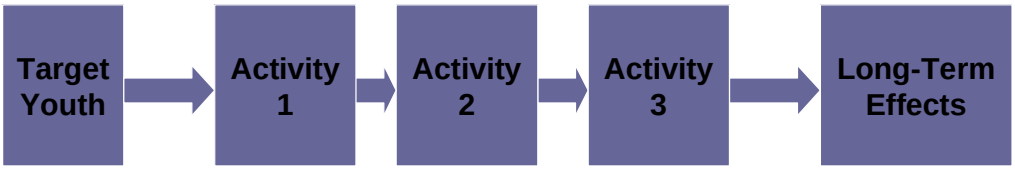
We are not the first to advocate for a data system that integrates various youth-focused resources and that looks across the agencies, organizations and programs that target the same population. In fact, there has been a resurgence in data systems work as the cost of information systems has dropped, their use has become widespread, and the internet has provided greater communications options. At present, there are three common strategies for youth-focused data activities: indicators, geographic information systems (GIS), and integration of public data systems.

Figure 2: Alternative Logic Models Possible with Integrated Data

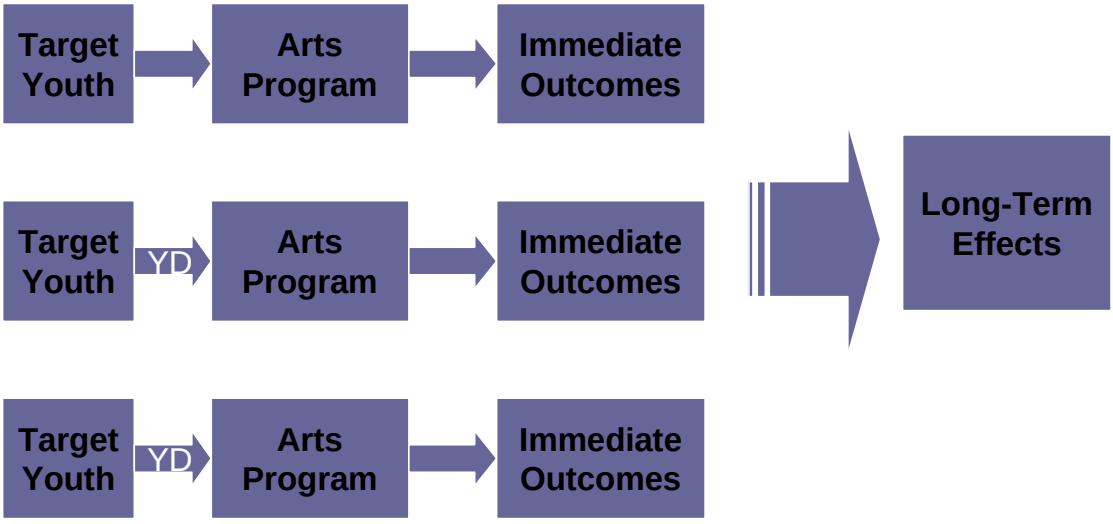
Simple Logic Model for One Program



Logic Model for Cumulative Effects of Multiple Programs



Logic Model for Similar Programs Using a Mix of Approaches



A number of communities have adopted "report cards" to give an account of a community's or a state's youth indicators—high school dropouts, asthma rates, teen births.[3] Philadelphia's efforts supported by funding from the Urban Health Initiative resulted in one of the nation's most comprehensive "report cards;" the city was successful in engaging both public and nonprofit agencies as well-as community-based organizations in a system to link client-

[3] The indicator strategy is actually a revitalization of the social indicators movement of the 1960s and 1970s (see for example, Bauer, 1966; U.S. Office of Management and Budget, 1973).

based data (see Weitzman, et al. in press, pp. 14-15). The Annie E. Casey Foundation's work on KIDS COUNT and the related local KIDS COUNT projects provide other sophisticated examples of such indicator projects. States such as New York, Iowa, Oklahoma compile similar reports to mark the status of their youth. Closely related to such report card efforts, GIS projects combine such indicators with spatial information to highlight status by neighborhood (zip code, census block, political district). The resulting maps can be quite compelling to policymakers and the public, especially on resource allocation by location. As useful as these portraits are as status indicators, they do not address the interrelationships among various youth outcomes or, by extension, the resources and programs associated with them.

Data integration, where information is linked across programs at the client level, provides a much richer ability to show the complexity of youth participation across programs. Because the same public social service or health agency commonly runs many different programs, just achieving data integration within an agency has been an important step. A few jurisdictions have successfully integrated data across public agencies. South Carolina, for example, has made substantial investments in integrated data systems, led by health specialists, but crossing a wide range of state departments. For example, the state linked data from health, mental health, disabilities, education, social services, and vocational rehabilitation departments to develop an unduplicated count of children with special health care needs, along with their service utilization, county of residence, educational performance and household structure. This information was used to target outreach, prevention, health and educational programs for these children. (Bailey, 2003)

Knowledge Management: Using Data to Build Relationships

Although the technical barriers to data integration are falling, there are still critical challenges in making data integration a tool for change. Weitzman, Silver and Brazill (in press)

studied efforts to improve data practice in 15 "distressed cities." They note the technical, resource, bureaucratic and access challenges that frustrated efforts in each city and found that "mobilizing political will and local government leadership [were] critical to overcoming these obstacles" (p.1); they concluded that a comprehensive "data warehouse" holding all public data "remains a phantom; a vision of what might be, rather than what is." (p. 15). Respondents in their study see this vision as stymied by lack of leadership; what's needed is someone to be "in the middle of this in a neutral position." (p. 19).

The challenges are particularly significant for data integration that seeks to give voice to community-based youth serving organizations and weight to positive youth development. Because public agencies hold the majority of administrative data on youth, the public agencies play a central role in data integration, which can exacerbate the divisions between the public and nonprofit sectors. The nonprofit or community-based perspective is disadvantaged for a number of reasons. First, these systems often rely on substantial hardware and software investments, creating an expensive system owned by the government agencies. Second, with the system owned by the government side, community organizations may be hesitant to share data except in their role as contractors. Third, community organizations rarely have the skills or the standing within the data integration work to use the integrated data for their own analyses, leaving them in the consumer role. Finally, returning to the conflict between the positive youth development perspective of community-based organizations and the problem solving requirements facing public agencies, the dependence of these systems on administrative data inherently leads to a dominance of the deficit picture rather than a portrait of positive youth skills, attitudes and strengths.

Thus, although our theory of change holds that different and better information about the character, resources and outcomes of social settings will further better choices and decisions, we

also acknowledge the limits [or myth] of information, by itself, leading to positive social setting change. With Brown and Duguid, we recognize that a "tight focus on information, with the implicit assumption that if we look after information, everything else will fall into place, is ultimately a sort of social and moral blindness" (2000:31)

The YDA takes the creation of new knowledge for setting change as problems of knowledge management.[4] Following Brown and Duguid (2002), the YDA project builds on the premise that knowledge and information are not one and the same, and that translating information into actionable knowledge requires intentional strategies of convening, negotiating, support and relationship building among stakeholders. Central to enacting this theory of change, then, are opportunities and supports for users to develop shared understandings about the significance of YDA analyses and data, negotiate implications for action, and agree on appropriate indicators assessments with which to both measure and guide change. The Youth Data Archive, in other words, assumes the creation of a community of practice within which to consider programs and policies for youth.[5]

We take data linkage as an approach and a tool, not an end in itself. YDA users require a venue in which they can learn to ask questions, engage in candid conversation about implications they see in the data for policy and practice, and make decisions that implicate multiple institutions and programs. To be successful, the YDA must help practitioners, policymakers and other stakeholders see themselves as part of a broader context and use information provided by the YDA to examine relationships between relevant dimensions of social settings and outcomes for young people. However, to do so, the YDA must be responsive to the incentives that guide decisions about policies and practices, creating opportunities for stakeholders representing

[4] The literature on knowledge management is extensive. See Von Krogh, Ichijo & Nonkara (2000) and Wener, McDermott & Snyder (2002) for useful collections on the topic.
[5] We use the concept "community of practice" as elaborated by Wegner (1998); Wenger, et al., (2002).

diverse interests to start by considering the implications of data for their own organizations and not just the youth-serving sector more generally.

To achieve this, we have incorporated several critical features that speak to the role of relationship building and knowledge management. They include:

Expertise located in the "neutral middle": The Gardner Center serves as a neutral third party, holding data for the benefit of the community as a whole rather than giving a preference to the government agencies or to the non-profit agencies, including those seen as advocates sometimes in opposition to government. In this role, we are responsible for all the technical elements of creating the data archive, including negotiating access to the data; identifying protocols for secure, low-burden data transfer, and data matching. We also provide analytical expertise, so we take the lead in product development, although we are also working to build the capacity of our community partners. Because we have no authority over any of the entities providing data, the negotiation of data access is the greatest ongoing challenge. In fact, this middle role is only feasible because of four factors: First, we have community partners already committed to the concept of community youth development. Second, we are known and trusted in the community. Third, we approach the archive creation as a long term commitment. Finally, we have been fortunate to obtain grants that provide general start-up support, rather than relying on the funding from any one agency or support for a specific analytical task.

Long-term commitment but near term products: The Gardner Center's long-term commitment has turned out to be one of the most important features of the project. In planning for a long-term role, we take a stepwise approach to building the archive. As soon as we have data contributed, we seek to develop analyses of interest to contributors, thereby encouraging other agencies to participate. For those who are less comfortable about providing data, we develop strategies for less sensitive initial data transfer. For example, for public mental health

programs, we will start with information only on participation in these programs, leaving more detailed case information to later phases and future analyses. Together these strategies allow the project to move forward even when specific agencies are not initially committed to the project or have concerns about data confidentiality. Initial "foot draggers" do not stymie the project, but can be given time to feel comfortable with the project and the process. Moreover, because our analyses are not just summary indicators, we can gradually address data issues as they arise. For example, some of our first analyses have examined after-school programs. The staff directing these programs had conducted youth and teacher surveys to capture many of the youth development features of the programs, but the surveys were all anonymous and therefore could not be incorporated into the event histories. Seeing how the survey data could be integrated into the larger analysis has led the programs to change their data collection procedures. Similarly, our initial analyses rely on the information currently available, recognizing that the answers may change as additional data comes into the archive. Rather than being a disadvantage, the analyses drawn on less than universal initial data become the basis for conversation about what alternative interpretations might be more accurate, what data would be needed to test the alternative interpretations, and how policymakers might change their views and their actions based on such information. This is exactly the process of knowledge creation we seek in the YDA.

Close oversight by data contributors: A key strategy to ensure that agencies are willing to join the YDA is the establishment of data use agreements in which agencies do not lose ownership or control of their data. In the communities that have less of an existing collaborative structure, agencies express political worries, concerns that their data in the hands of another public or private youth-serving group could be used to embarrass them or initiate legal action. This worry is not unique to our communities. As Weitzman, et al. observed, in some

communities "... there is almost a paranoia that runs through it that they are afraid if they work together that someone will see inefficiencies and take money away from them." (p. 19).

To alleviate these concerns, we are establishing two groups in each local community to advise the YDA work— a Policy Committee and a Data Oversight Team, with representatives from every major agency contributing data.[6] The Policy Committee is largely an extension of ongoing collaborative work in the community. It has two basic roles. First, it generates and approves questions for analysis, including topics proposed by outside researchers. In approving questions for analysis, the contributing agencies approve the use of their data for that topic. Second, the Policy Committee assists with dissemination and outreach. The Data Oversight Team serves as a more technical review panel. One of its tasks is to review findings for accuracy and data interpretation. Especially in the early years of the YDA, we believe this approach is critical to building trust among the partners who provide their data to the initiative. Equally important, we have found this kind of review critical to avoiding misinterpretations that may have enormous impact on the findings. For example, in one county, what appeared to be a sudden drop in the number of foster homes was in fact an artifact of a data cleaning which eliminated all inactive foster homes in one month. Administrative changes in the way data are recorded can also greatly affect results without any underlying change in services. The same data interpretation issues exist for data captured on paper forms or in simple spreadsheets as for data from sophisticated government IT systems. The review process will provide a forum for discussing such data issues and ideally, improving data collection over time. We also hope that this task will create another avenue for collaboration in the communities, as partners talk together around concrete data findings, prompting further questions and new strategies.

[6] The Kids Integrated Data System (KIDS) run by the Cartographic Modeling Lab at the University of Pennsylvania to link data from Philadelphia city government and the city school district takes a similar governance approach.

Lowered costs and administrative hurdles by structuring for research purposes: Because our purpose in the YDA is to use data to build knowledge for community youth development, we have adopted a data structure that significantly lowers the Information Technology (IT) costs as well as the confidentiality concerns relative to the large relational databases with live lookup and reporting, developed for day-to-day service integration rather than research. These systems require not only greater hardware and software investments (so they are more expensive), but they usually require client consent procedures. Because our focus is on analyses of broader community issues, including the cumulative value added by youth-serving organizations, we are able to employ simpler file structures, designed for policy analysis and research rather than live program administration. Moreover, since we are providing aggregated results – albeit with much greater use of subgroup analysis and other statistical techniques – we fall clearly within the bounds of data use for research purposes, which fall under a different set of confidentiality rules and requirements. Many of the features of the relational databases that are used for policy purposes, such as standard outcome reports, can be built into internet-based collaborative environments. Once the archive is established, the ongoing costs will largely be the staff time for specific analyses, which we expect will be supportable on a low-cost fee basis.

Progress to Date, Challenges and Next Steps

The YDA currently operates in three communities where we have strong existing connections. To date, we are working with eight public agencies, four school districts and a handful of community-based organizations in two counties. Table 1 lists how the types of data we have compare to the types we have targeted for eventual inclusion in the archive. We continue to work with agencies in each community to add additional participants into the YDA. Particularly with agencies such as public health departments, the commitment to participate in

the archive will bring multiple new data sources, such as nurse visitation, teen pregnancy prevention, and school health clinic data.

Table 1: Types of Data Ideally Included in Archive

Y	School attendance, grades and test score	Y	After-school program participation
Y	Child welfare caseload and placement	*	Youth employment service receipt
*	Juvenile probation placement and services	*	Job training participation
Y	TANF participation and services	Y	Sports, arts and enrichment program participation
Y	Housing assistance		Alcohol and other drug substance abuse services
Y	Public health insurance participation		Teen parenting and pregnancy prevention services
*	Public health insurance claims	Y	Independent living assistance
	Arrest records	Y	Other community based service participation
*	Mental/behavioral health caseload	*	Early childhood education

Y - Currently in the YDA for one or more community

* - Data use currently being negotiated and/or data sources available through other research

Our initial analyses have focused on school-based services included after-school programs and mental health counseling. In terms of service coordination, we have examined the share of children in two school districts who receive public assistance or Medicaid or who are involved in the child welfare system. Although these children are more likely than their classmates to reach school based services, many do not participate. The school district is using this information to improve outreach to Asian language minorities, who appear to be underserved even after controlling for school characteristics and social services participation. While descriptive statistics are the main analytical tool to determine who is and is not receiving services, we have relied on more sophisticated regression analyses to assess the impact of school based services. For example, we used a generalized propensity scores approach to identify children in schools without mental health counseling who were most like those children receiving counseling in similar schools that offer these services. This allowed us to use a notional control group to test the impact of the mental health counseling on test scores. We found a small but significant additional boost in test scores year to year for counseling participants once we used this control group strategy to statistically correct for the fact that the most troubled children

– who also have unusually low school performance – are most likely to receive services. The ability to control for child welfare history turned out to be an important factor in identifying the control group. An upcoming project will examine the overlap between welfare eligibility and child neglect cases to assess the role of various support services, including cash assistance, food stamps, alcohol and drug treatment, job training, and mental health services, in preventing inadequate care for children and thus keeping children safe at home.

The ongoing challenge for the YDA is exactly that seen in other cities and anticipated by project staff: the slow process of gaining and maintaining data access. While the Gardner Center's long-term commitment has been critical in making progress, the downside of this patience is the fact that staff has turned over at a number of the partner agencies, while the agencies themselves shift data systems over time. In one school district, for example, virtually all of the staff with whom we had negotiated to develop a data use agreement left the district before data was actually provided under the agreement; we are now negotiating from scratch with new personnel. Another agency that is one of our strongest allies has been required to adopt a new statewide database, thus they have to learn how to work with it internally first, then learn to export data for outside stakeholders like the YDA. These situations are endemic in a project like the YDA and largely addressed by maintaining strong relationships at multiple levels of agencies, as well as key partners such as local foundations.

Other future goals for the YDA include the more systematic inclusion of measures of social settings such as the Community Network for Youth Development's Youth Development Framework for Practice, social setting indicators used by the Boys and Girls Clubs of America or the Program Quality Assessment measures used in High/Scope. The inclusion of these measures, as well as data on youth perspectives of their resources and opportunities, will rely on new data collection. Such data would allow the YDA to take a 'natural experiment' approach to

better understand variation in the nature of relevant social settings and how they operate in different local and system contexts. Over time, we hope the YDA will broaden the commitments to community youth development by creating community, county, and regional accounts of resources and opportunities available for youth. Finally, we will be tracking the evolution of the YDA to understand its lessons for knowledge management in a societal sector, including: Which stakeholders use the YDA under what conditions and to what end? What factors contribute to agencies' capacity to use data generally and the YDA in particular? What factors facilitate candid examination of data across sectors, agencies and programs to address collective responsibilities for effective social settings and youth development? And what factors constrain these discussions?

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