American Youth Policy Forum

Beyond the Numbers:

Data Use for Continuous Improvement of Programs Serving Disconnected Youth

Austin Pate, Jennifer Brown Lerner, and Andrea Browning

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The American Youth Policy Forum (AYPF), a nonprofit, nonpartisan professional development organization based in Washington, DC, provides learning opportunities for policymakers, practitioners, and researchers working on youth and education issues at the national, state, and local levels. AYPF's goal is to enable participants to become more effective in the development, enactment, and implementation of sound policies affecting the nation's young people by providing information, insights, and networks to better understand the development of healthy and successful young people, productive workers, and participating citizens in a democratic society. AYPF does not lobby or advocate for positions on pending legislation. Rather, we believe that greater intellectual and experiential knowledge of youth issues will lead to sounder, more informed policymaking. We strive to generate a climate of constructive action by enhancing communication, understanding, and trust among youth policy professionals.

Founded in 1993, AYPF has interacted with thousands of policymakers by conducting an average of 40 annual events such as lunchtime forums, out-of-town study tours, and policy-focused discussion groups. Participants include Congressional staff; federal, state, and local government officials; national nonprofit and advocacy association professionals; and the press corps. At forums, these professionals interact with renowned thinkers, researchers, and practitioners to learn about national and local strategies for formal and informal education, career preparation, and the development of youth as resources through service and skill development activities. Study tour participants visit schools undergoing comprehensive reforms, afterschool and community learning sites, and youth employment and training centers, where they learn experientially from the young people and adults in the field.

AYPF focuses on three overlapping themes: Education, Youth Development and Community Involvement, and Preparation for Careers and Workforce Development. AYPF publishes a variety of nationally disseminated youth policy reports and materials, many of which may be viewed on our website (www.aypf.org).

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Austin Pate and Jennifer Brown Lerner, Authors
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EXECUTIVE SUMMARY

The American Youth Policy Forum (AYPF) conducted a series of in-depth case studies to examine how three programs which serve a disconnected youth population are utilizing data as a tool for continuous program improvement and ongoing accountability. The resulting publication, *Beyond the Numbers: Data Use for Continuous Improvement of Programs Serving Disconnected Youth*, describes data collection and use at three successful programs, and distills the key lessons learned and issues to consider both for practitioners and policymakers aiming to improve outcomes for the disconnected youth population.

As we began our investigation, we identified the following research questions:

1) How has the organization's use of data evolved over time?
2) How is a comprehensive data management system serving the dual purposes of program improvement and compliance with reporting obligations?
3) What information is most useful across purposes and in what format is this information collected and utilized?

The program profiles were conducted through a case study methodology including site visits and in-person interviews with key programmatic staff, individuals involved with organizational decision-making as well as key partners within the broader community. The profiled programs included:

Roca

Roca is a non-profit, community-serving organization headquartered in Chelsea, Massachusetts, founded in 1988. A pioneer in serving at-risk youth, Roca was one of the first community-serving organizations in Massachusetts to integrate youth development principles into its intensive outreach and engagement, which was paired with relevant programming. An innovator in providing services to the high-risk youth population, Roca employs its High-Risk Intervention Model, a comprehensive, three-phase process with two years of intensive intervention, followed by two years of follow-up services. The High-Risk Intervention Model encourages both the primary young male population and the secondary young mother population to engage in transformational relationships and programming to support competency development in life skills, employment, and education. In 2012, Roca served a total of 888 high-risk youth in the Chelsea/East Boston area, and an additional 232 youth from a secondary site opened in Springfield, Massachusetts in 2010. Of Roca's 2011 graduates, 90 percent sustained employment and/or engaged in education; 86 percent had no new arrests after leaving the program; and 81 percent of the young mother population reported no new pregnancies.

Our Piece of the Pie

Our Piece of the Pie (OPP), Hartford, Connecticut, founded in 1975 as a local community services organization, has evolved into an organization focused exclusively on improving young people's outcomes in education and employment. OPP provides programs for youth from age 14 through 24, with a particular focus on the over-age and under-credited population at risk of not graduating from high school or finding sustainable employment without support. In order to provide well-targeted and differentiated services based on youth needs, OPP has identified four cohorts, or “pathways,” within the population served: out-of-school youth with no diploma; in-school youth who are at-risk of dropping out; in-school youth who are on-track for graduation; and the “postsecondary pathway” composed of youth who utilized OPP services and who have graduated from high school. In 2011-12, OPP served 853 youth across all its programming. Of those youth, 88 percent are eligible to obtain a high school credential (versus 60 percent in Hartford Public Schools); 76 percent are eligible continue to some sort of postsecondary education; and 65 percent retain jobs for 12 months or longer.

Diploma Plus

Diploma Plus national network is a non-profit education organization that focuses on re-engaging urban youth at-risk of dropping out of high school. Originally founded in 1996 as a pilot program for 100 students in Boston, Massachusetts, Diploma Plus national network has developed and currently implements a school model that provides rigorous and individualized educational experiences for students. Combining content knowledge with real-world applications in a meaningful context, Diploma Plus schools engage at-risk students through its student-centered curriculum. Diploma Plus schools are characterized by their implementation of the Four Essentials: a performance-based system that includes competency-based assessment, supportive school culture, a future focus on postsecondary/career education, and effective capabilities to implement the model across the network. To date, the organization has grown into a national network serving over 3,400 students, located in 17 schools across six geographic regions. Diploma Plus national network has experienced great success in providing quality academic and career preparation for at-risk youth. In its largest region, the New York Metro area, roughly 90 percent of students pass state English and mathematics tests, and 91 percent of students graduate high school. Of those graduates, 82 percent are accepted into and plan to attend college.

The program profiles provide an inside look into the data collection, use, and resulting data culture. Upon reflection of the elements of success in data use across the three programs, we identified key lesson learned we believe are critical building blocks of a data culture focused on continuous improvement. These include:

- The need for a clearly articulated theory of change;
- Data collection which mirrors program needs; and
- A strong organizational commitment to professional development for all staff related to data collection and data use.

In addition, some issues for both practitioners and policymakers to consider have emerged. While this is not a comprehensive list, APYF has identified the financing of data systems, both hard cost and organizational resources; data sharing within and across organizations and agencies; and the possible standardization of outcomes, particularly in the disconnected youth field.

BEYOND THE NUMBERS: DATA USE FOR CONTINUOUS IMPROVEMENT OF PROGRAMS SERVING DISCONNECTED YOUTH

Introduction

The American Youth Policy Forum (AYPF) has conducted a series of in-depth case studies to examine how three programs serving disconnected youth are utilizing data as a tool for continuous program improvement and ongoing accountability.

We are bombarded with information and data on a daily basis. Yet, how we use this information is more critical than just collecting the facts and figures themselves. In our knowledge society, we must move beyond the simple act of collecting data and rather determine what information is valuable for our purposes and how that information will promote our efforts to continually improve.

To consider this challenge in the context of youth-serving programs, AYPF investigated data collection and use at three successful programs which serve a disconnected youth population (see Population Investigated). At the core of these programs' success with the hard-to-serve population is an ability to collect, analyze, and utilize data to drive program decisions. This capacity does not exist by simply developing a data system, rather it requires a program to gather relevant information about performance, reflect on its outcomes, make adjustments aimed at improvement, and continue to monitor its progress.

The intent of our investigation is to document what information the programs collect, how they collect it, and how this information is utilized by the organization to drive decision-making and program improvement. The following sections will describe the elements of success related to data use at the profiled programs. The final section will synthesize the key lessons learned and present issues to consider.

Population Investigated

Throughout this report, several terms are used to describe the particular subset of the youth population served by the profiled programs, including "at-risk," "proven-risk," high-risk", and "disconnected" youth. Additionally, in terms of educational attainment, these youth are often described as "over-aged, under-credited" meaning they do not have the appropriate number of credits for their age and intended grade. For the purposes of this report, all of these terms describe the same young adult population, ages 14-24, who are not employed, not on-track to graduate high school, and/or who have dropped out of high school altogether. In order to eventually earn a family-sustaining wage, these youth are in need of a range of education and work-relevant skills. Yet, they face a multitude of challenges including a lack of basic literacy skills necessary for academic work, being over-aged and under-credited for school, transitioning from involvement with the criminal justice system, and many others. Successful programs and services engage this population with flexible programming which are responsive to their diverse needs. Research has demonstrated successful strategies to use with this population, including engaging youth in school and work, providing job training, building relationships with adult mentors, and providing opportunities for community engagement. This report investigates three programs which have been able to combine these strategies along with elements of success in data collection and use to effectively engage this population.

Methodology

Inquiry and analysis of the three selected programs was conducted throughout 2012. At each organization, eight to twelve staff were interviewed. A combination of in-person and phone interviews was used, typically lasting from thirty minutes to an hour. In-person interviews were conducted in tandem with site visits, where the regional offices or headquarters of each organization were toured. The interviews covered a range of topics, from general information regarding staff history in the organization and current job responsibilities, to more detailed questions targeting data collection protocols and staff experience with data collection and use. For each organization, a sample of four to seven youth participants were interviewed for half an hour, and information related to their personal history, pathway to engage with these organizations, and feelings about the impact these organizations have had on their lives were discussed. When available, key partners of the organizations were interviewed, providing context to the organization's history, collaborative efforts, and overall impact on the communities they serve.

Apart from the in-person and phone interviews of staff, youth, and partners, AYPF also reviewed internal documents for each organization. These documents included general literature of the programs, in-depth descriptions of program models, annual progress reports, quarterly and monthly data reports, evaluation rubrics, screen captures and descriptions of data collection tools, and third-party analyses of program impact. These documents combined with the interviews and site visits form the basis from which the following report was created.

The three profiled programs, Roca, Our Piece of the Pie, and the Diploma Plus national network, were selected because of their proven track record of success in serving the needs of disconnected youth.

It is our hope that this report will provide both concrete recommendations to practitioners aiming to improve their data collection and analysis as well as provide policymakers with a deeper understanding of what type of data information matters, particularly to improve programming for the disconnected youth population, particularly as they consider appropriate measures and outcomes for accountability purposes.

CREATING AN ORGANIZATION-WIDE DATA CULTURE: A CASE STUDY OF ROCA

Summary

This section presents observations from a site visit conducted by AYPF staff at Roca to examine how the organization uses data for program improvement and decision-making. These findings are drawn from document reviews and interviews with staff across the organization, key partners, as well as youth participants.

The following summarizes our key findings from the site visit, and outlines Roca's three elements of success related to building their data culture:

1) **Data collection is limited to information relevant to the organization's model**
2) **Trusting relationships are established with city officials and other partners to facilitate data sharing**
3) **A culture of accountability and continuous improvement is created at the participant and organizational level**

INTRODUCTION

Roca is a non-profit, community-serving organization located in Chelsea, Massachusetts, and was founded in 1988. A pioneer, Roca was one of the first community-serving organizations in Massachusetts to adopt youth development principles, and through its intensive outreach and engagement paired with relevant programming, was an innovator in providing services to the high-risk youth population. Roca's mission has been to "help disengaged and disenfranchised young people move out of violence and poverty" through use of three key strategies: relentless outreach and transformational relationships; stage-based programming; and engagement of other institutions and organizations that serve youth.

For several years, Roca offered a range of programming options to high-risk young men and women. These services included a three-year intervention strategy which incorporated programming in dropout prevention and recovery, leadership and empowerment, as well as supports for pregnant and parenting young women. Under the leadership of Chief Knowledge Officer[1] Anisha Chablani, and with the support of founder Molly Baldwin, from 2006-2011 Roca reflected upon the data it collected over the years to determine if its efforts produced the desired outcomes. This analysis resulted in the decision to refocus its efforts and in 2011 its services were consolidated into Roca's comprehensive High-Risk Intervention Model, a two-year intensive intervention strategy, with two years of follow-up support. This new model narrowed Roca's focus to the highest risk youth who ordinarily are not served by other community organizations. The current target population includes young men age 17-24 with a criminal record, no employment history, and no high school credential, as well as young mothers.

Today, Roca employs its High-Risk Intervention Model to encourage youth and young adults to confront and overcome destructive behaviors and learn the skills needed to re-engage and

[1] The Chief Knowledge Officer is responsible for the development and implementation of all data management strategies and procedures at Roca.

succeed in society, education, and the labor market. In 2012, Roca served a total of 888 high-risk youth in the Chelsea/East Boston area, and an additional 232 youth from a secondary site opened in Springfield, Massachusetts in 2010. While there is not one dedicated source of funding for the high-risk youth population, Roca has drawn upon a combination of nearly 350 public and private funders. In the 2011 fiscal year, Roca drew in a combined revenue of nearly $7.2 million to support its participants, staff, and programming.[2] Through constant refinement of its model, and its commitment to relentless outreach, Roca has produced impressive results with its High-Risk Intervention Model, clearly demonstrated through the organization's performance on its long-term goals of sustained engagement in education/employment, no new arrests, and no new pregnancies. Of Roca's 2011 graduates, 90 percent sustained employment and/or engaged in education; 86 percent had no new arrests after leaving the program; and 81 percent of the young mother population reported no new pregnancies.

Refining the Roca Model

While historically Roca offered a wide-range of programming to youth spanning the spectrum of risk, there was no organizational mechanism to gauge how well the model served the youth it targeted. The data available (the number of new arrests and overall job stability) indicated that Roca's model and programming had ultimately proven ineffective in facilitating real and sustained behavioral change for this large group of young people. In order to further its goal of creating greater opportunity for youth, from 2005-06 Roca began its first of several Theory of Change evaluation processes; taking inventory of promising and proven strategies to engage the high-risk, disconnected youth population, and adopting a new data system to more accurately track its impact. Roca conducted extensive research, evaluating literature spanning several fields of study, including youth development, criminal justice, and behavioral change.

Synthesizing the research, Roca concluded that if it was to truly engage with the high-risk population, it would need to specialize and narrow its focus, both in terms of its intervention strategies, as well as its target population. Drawing upon its own experience, Roca understood that perfect attendance and adherence to programming was not feasible in engaging high-risk youth, and that this population was prone to relapse. It was this insight that led Roca to incorporate the Transtheoretical Model of Behavior Change into its model refinement process. Developed by scholars James Prochaska and Carlo DiClemente in 1984[3], the Transtheoretical Model recognizes that change occurs through a series of stages, and that part of this stage-wise development is the expectation of regression at some point in the process. Rather than set youth up for failure with unrealistic expectations, Roca embraced relapse as a natural and predictable step on the path to sustained behavioral change and found the Transtheoretical Model's Stages of Change useful in its model refinement. Below is a description for each of the five Stages of Change the Transtheoretical Model predicts youth to experience on their way to positive behavioral change:

[2] Approximately 54 percent of the $7.2 million revenue came from government contracts, while private grants accounted for roughly 34 percent. The remaining 12 percent was distributed between donated services, special events, and income from investments.

[3] Prochaska, James O., Carlo C. DiClemente, and John C. Norcross. "In Search of How People Change: Applications to Addictive Behaviors." American Psychologist 47.9 (1992): 1102-14. Print.

1. Pre-Contemplation: During this stage, individuals have no intention of making changes in their behavior, and are unaware of their problems.

2. Contemplation: During this stage, individuals are aware of their problems, are seriously considering making a change, and are usually willing to do so within a six-month period. This stage is also accompanied by a greater understanding on the part of the individual of why he or she may wish to change his or her behavior.

3. Preparation: At this point in the process, individuals begin to see intervention as not just a possible idea, but a good idea, and generally take formal steps to plan for participation.

4. Action: This stage is the point at which individuals will modify their behavior or environment in order to overcome their problems.

5. Maintenance: Once an individual has experienced relapse and re-entered intervention, the final stage of maintenance can occur. At this stage, the majority of an individual's behavior will be in line with the goals they set, and he or she will actively develop and employ strategies to prevent relapse.

The Transtheoretical Model and Stages of Change informed a central feature of Roca's new model: stage-based programming. By understanding where an individual places in the five Stages and by tracking their progress, Roca staff are better able to gauge the youth's willingness to engage and thus, are better able to match a particular youth with appropriate life skills, educational, and prevocational programming. This whole process is reinforced and facilitated by Roca's youth workers, highly-skilled individuals in charge of case management. The youth workers function on the front-lines and employ motivational interviewing strategies that provide constant contact between Roca and its target high-risk youth population. This "relentless outreach" includes two to three weekly contacts with each participant in a youth worker's caseload. Each contact is catalogued in Roca's database with a detailed record of the exact time, location, and outcome of each contact, along with additional notes and personal impressions. This information, along with status regarding stage-based programming, transitional employment, and educational advancement are all recorded by youth workers. By meeting youth where they live, youth workers engage in relentless outreach, track where youth place on the Stages of Change, and help to determine the appropriate intervention strategy and programming for youth.

In addition to providing clarity to the model, Roca also sought to expand its capacity for data collection and overall organization management. In 2006, Roca implemented Efforts to Outcomes (ETO) developed by the software company Social Solutions, an online data collection and reporting system that matched its needs. Beyond simple demographics, this data system was customized to match the unique needs of Roca's High-Risk Intervention Model. Working with ETO, Roca was afforded granular control of data elements and content within the system. Youth workers are able to accurately track the contacts made with their youth on a daily basis, as well as the progress individual youth had made toward Roca's Workforce Readiness Criteria[4] checklist, stage-based programming, and educational baseline and follow-up assessments. Additionally, ETO allows Roca to aggregate this information to provide a large-picture view of

[4] See Phase 2 section within the High-Risk Intervention Model callout box

the organization's overall program outcomes and enrollment data.

Since implementing its ETO system, Roca has analyzed its data, and discovered that the three-year intensive intervention provided too long a window of engagement with the program, and actually caused some youth to regress into old habits. It appeared that youth spending around 24-28 months in Roca's model showed the greatest improvement in behavior and employment stability, and those that stayed longer tended to perform worse than others in the program.

As a result, to prevent youth from developing an over-reliance on Roca and to maintain the positive developmental momentum provided by stage-based programming, Roca decreased the length of its intensive intervention from three years to two years, with two years of follow-up. Similar data suggested that Roca's reach had been too broad, and indicated that if Roca was to focus on the population that experienced the highest levels of risk, it would be better prepared to offer more effective intervention strategies. Thus, Roca narrowed its primary population to young men, ages 17-24 with prior involvement in the juvenile justice system, no employment history, and no high school credential. In addition to this primary population, the data suggested that young mothers also benefited greatly from the High-Risk Intervention Model, prompting Roca to retain the participants involved with the Healthy Families programming for teen mothers as a secondary population. Despite narrowing its focus on a smaller population, Roca still provides guidance to youth that do not meet the highest levels of risk, and provides referrals to other community programming.

Springfield Expansion

After refining its model, and with a new desire to test its change in programming and population served, Roca undertook a replication effort in Springfield. In November of 2009, Roca received a $700,000 Challenge Grant from Strategic Grant Partners to work with the Springfield Police Department and the City of Springfield on its new site. The Springfield location would serve young men 17-24 years of age with a criminal record, no high school credential, and with intensive intervention lasting two years. In the summer of 2010, the new location had 50 high-risk young men working their way through Roca's High-Risk Intervention Model. While Roca had carefully cultivated a strong relationship with the community in Chelsea over the course of 24 years, Springfield was a community in which Roca lacked strong ties. Without a long-established history with the community and aware of the challenges associated with providing services to a new area, Roca partnered with two trusted organizations in the community to help with programming; the Massachusetts Career Development Institute, which provided GED programming, and the Regional Employment Board of Hampden County, which offered workforce readiness programming. For a period of time the operation was temporarily housed at the County Sheriff's Department, but in June of 2011 Roca officially opened its new building in Springfield. While Roca currently lacks data from a full two years of intervention and two years follow-up, the targeted youth in Springfield have made great strides toward sustained employment and have largely stayed out of the justice system.

Roca's High-Risk Intervention Model

Using the framework provided by the Transtheoretical Model, along with the other refinements it has made, Roca operates today using its High-Risk Intervention Model. The model works to encourage both the primary young male population and the secondary young mother population to engage in transformational relationships and programming to support competency development in life skills, employment, and education. This process occurs in three distinctive phases:

Phase 1: Engagement

Phase 1 lasts from the start of the intervention through approximately month six. During this time, youth workers will have a high-risk youth assigned to their caseload and then proceed to make a mandatory two to three weekly contacts with that individual. Over the first two months, the youth worker will determine if the individual is a good candidate for Roca and encourage them to engage in programming. After youth enroll, youth workers will introduce youth to appropriate stage-based programming and begin the process of collecting the materials needed to get them into transitional employment. In Phase 1, youth must complete a baseline educational assessment as well as develop a service plan with their youth worker to consider potential areas of behavioral change and improvement. In order to pass from Phase 1 to Phase 2, youth must have an established relationship with a youth worker for four to six months, experience a relapse in the relationship, complete the baseline assessment, and develop a service plan.

Phase 2: Behavior Change

Phase 2 lasts from around month six to the end of the second year. During this time, youth workers will continue to contact youth two to three times per week, and youth will attend stage-based programming a minimum of two times per week. By the 18-24 month period, youth are expected to meet the attendance standards for their stage-based programming and attend two prevocational classes, which include culinary arts, carpentry, green cleaning, and cosmetology. This phase also marks the completion of Roca's Workforce Readiness Criteria, which consists of the collection of necessary documents; completion of all workforce readiness workshops; and consistent demonstration of life/professional skills. Additionally, youth will continue to engage with their educational programming and complete their involvement with their transitional employment program. In order to pass from Phase 2 to Phase 3, youth must be enrolled in the Roca model for 21-24 months, complete a follow-up to their baseline assessment, receive placement in employment, make education gains, and receive no new arrests or parole-related violations.

Phase 3: Sustaining

Phase 3 extends two years after Roca's intensive intervention. During this time, youth will attend stage-based programming as needed. While continued contact with their youth worker is a part of the program throughout all three phases, the frequency of contact begins to decrease. By month 27 contact is reduced to two times per week, one time per week at month 30, two times per month at month 36, and by month 48, contact between youth worker and youth will have decreased to once per month. It is also expected that around the 30^{th} month of the model, youth will have been consistently employed for six consecutive months.

Elements of Success at Roca

In transitioning from an organization providing multiple services to a broad range of youth, to a data-driven organization that utilizes evidence to inform program improvement with a tight focus on serving certain at-risk youth, Roca provides valuable lessons for practitioners and policymakers. Study of the Roca model has revealed three key elements leading to its effective data culture:

1) **Data collection is limited to information relevant to the organization's model**
2) **Trusting relationships are established with city officials and other partners to facilitate data sharing**
3) **A culture of accountability and continuous improvement is created at the participant and organizational level**

Element of Success #1
Data collection is limited to information relevant to the organization's model

The adoption of ETO in 2006 brought about several changes to the way Roca managed internal processes. By working with Social Solutions to build a custom database, Roca was able to create a system with data elements that mirrored its High-Risk Intervention Model. With front-line staff providing constant, up-to-date information regarding the status of each participant's progression along the Stages of Change and three phases, Roca has successfully developed a useful, relevant tool for youth and staff. Using their customized data system, Roca staff is able to track both benchmarks for individual youth, such as attendance in stage-based programming and placement in transitional employment, as well as substantive outcomes for the entire Roca cohort, such as employment retention and educational attainment.

Roca supports the maintenance of a useful and effective database through its exclusion of data not relevant to its High-Risk Intervention Model. In developing and refining its ETO system over the past six years, Roca has been unwavering in its stance regarding data elements and has employed a policy to, as much as possible, only house data that is in line with its High-Risk Intervention Model. When addressing issues of funding, customization of ETO enables Roca to provide reports to funders based on existing data collection, rather than attempting to collect data solely for grant proposals and status reports. Drawing upon data collected for its short term (progress through Stages of Change[5] and positive behavior change), intermediate (employment retention and educational gains), and long-term outcomes (employment retention and rate of recidivism), Roca is capable of providing funders a complete view of its impact on youth, while at the same time, preserving ETO as a valuable and functional database for staff.

Element of Success #2
Trusting relationships are established with city officials and other partners to facilitate data sharing

One of Roca's greatest assets in its attempt to successfully transition youth away from prison and toward education and sustained employment is its commitment to engaging other institutions and organizations which work

[5] As measured by progress through the three Phases of the High-Risk Intervention Model (see callout box).

closely with the very high-risk youth population. Since its beginnings, Roca has developed a strong relationship with city officials and has forged ties to institutions which consistently interact with high risk youth, most notably the Chelsea Police Department.

Over the past 24 years, Roca has developed a unique working relationship with the Police Department in Chelsea. Both organizations have worked in tandem to provide services to the highest risk youth, providing mutual support and sharing information whenever possible. Chelsea's decision to partner with Roca for the Massachusetts Safe and Successful Youth Initiative (SSYI) is just one example highlighting the strength of this partnership (see callout box). Roca had become such and important part of the Police Department, and vice versa, that the historic, yet informal partnership between the two organizations was formalized with a portion of the SSYI funds allocated to hire a Lieutenant at the Chelsea Police Department to oversee programming and act as a full-time point of contact between Chelsea and Roca. As liaison, the Lieutenant communicates with Roca on a daily basis and works directly with Roca's Director of Programming. A primary function of this collaboration is to build upon supportive efforts of the past, and to use Police Department data and information to help Roca identify potential candidates for the 100 SSYI slots. Once an individual is identified as a "proven-risk" male who is living within Chelsea city-limits and has no record of prior involvement with Roca, the Chelsea Police Department releases the name and contact information to Roca.[6]

[6] While due to legal reasons community-serving organizations are typically not allowed access to the criminal files of their participants, Roca's Director of Programming and Chief Knowledge Officer are considered subcontractors to the Police Department and are granted access to that information.

With a list of pre-screened youth, Roca then attempts to engage with these young men through the outreach of a "roamer." Roamers work in tandem with youth workers as the first line of engagement and utilizing their connections in the community, travel in vans to make initial contact with high risk youth.

The Massachusetts Safe and Successful Youth Initiative

The Massachusetts Safe and Successful Youth Initiative (SSYI) was launched by Governor Deval Patrick in May of 2011 and was designed as a comprehensive strategy aimed at decreasing youth violence in the Commonwealth. In October of the same year, 11 communities (Boston, Brockton, Chelsea, Fall River, Holyoke, Lowell, Lynn, New Bedford, Springfield, and Worcester) were awarded a total of $9.7 million in grants, attained through a combination of public and private funding. These funds were given to programs in the 11 communities and focused on four key areas for "proven-risk" youth with a history in the juvenile or adult justice system: deterring youth impacted by violence, especially young men age 14-24; creating more peaceful communities; facilitating community reentry for offenders; and getting guns off the streets. In December of 2011, the City of Chelsea received a $900,000 grant from the initiative. These funds were to cover the programming and infrastructure necessary to provide 100 proven-risk young men living in Chelsea with the support necessary to move away from crime and toward stable employment.

As data is collected regarding the progress of these youth, it is entered into the ETO database by the youth workers. With data shared in both directions, the police are given full-access to the ETO data of Roca participants covered by SSYI funding, while the Lieutenant monitors their progress. The partnership calls for trust on both sides of intervention. While all decisions regarding programming and intervention rest solely with Roca staff, the Chelsea Police Department offers Roca any additional resources available to provide comprehensive, 360-degree support for proven-risk young men.

The City Manager is also heavily invested in Chelsea's partnership with Roca. Devoting time each week, the City Manager is in constant contact with staff and enjoys a strong relationship with Roca. The communication between Roca and the City Manager has been developed over time and, by design, is largely informal. Rather than sharing data on individuals, the City Manager shares information about needs, relationships, and opportunities that exist within the community. In this manner, the City Manager acts in more of an advisory role, providing valuable insight into upcoming legislation, administrative priorities, and best practices. Similarly, Roca shares its insight with the City Manger on issues they learn about through engaging with the community and provides periodic updates on the state of its participants and program.

Element of Success #3

A culture of accountability and continuous improvement is created at the participant and organizational level

Roca's intentional shift toward an organizational culture of rigorous data collection and analysis has occurred gradually over time, with great care taken by founder Molly Baldwin to provide a smooth transition, ultimately leading to staff buy-in. When first transitioning to more deliberate use of data tools, Baldwin ensured that all staff were trained in the use of ETO and were given a full tutorial on its functionality and purpose within the organization. By including all staff in the process and providing extensive training along with its year-round professional development, the change to a data-driven culture was viewed as a way to advance the organization's capacity for using data at all levels. Since the transition, all new staff members are given similar mandatory training on ETO and data entry.

ETO has also proven useful in providing insight about the appropriate programming and intervention strategies for individual youth. Because Roca customized ETO to align precisely with its High-Risk Intervention Model, it can easily map the trajectory of a given participant through his or her stage-based programming. This data provides useful information to youth workers and is assessed on a weekly basis during youth worker supervision meetings. In supervision, youth workers meet with Supervisors to discuss their caseload and review the contacts made with youth, along with information regarding the stage-based programming, transitional employment, and educational advancement of each participant. Using this information, youth workers and supervisors work together to make decisions regarding any changes in programming necessary for participants. Additionally, youth workers discuss any challenges they have had in engaging particular youth and with their supervisors, brainstorm potential strategies to better connect the participant to Roca.

The ETO database not only enables Roca to track the long-term outcomes of individual participants, it also is a tool used for comprehensive performance management of staff and further fosters a culture of accountability. While in the past it was difficult to understand the impact of individual youth workers on broader youth outcomes, ETO allows for aggregated reports of a youth worker's entire caseload. During weekly supervision, youth workers review this report with their supervisors and review performance benchmarks, including timely data entry, as well as consistent contact with youth in their caseload. Youth workers also undergo a similar evaluation on a monthly basis, as well as a cumulative annual review, in which larger trends in their caseload can be observed.

At the organizational level, Roca supports its goal of continuous improvement through quarterly, as well as annual reports on the effectiveness of its programming. These reports are generated using the ETO software and contain information regarding the entire cohort of participants engaged in the High-Risk Intervention Model, including demographics, attendance records, progress through the Stages of Change, overall employment retention and arrest figures, as well as educational gains. These findings are formally presented to Roca's Board of Directors at their quarterly meetings. Staying true to its data culture, Roca dedicates one of its quarterly meetings each year to solely discuss the outcomes of Roca staff, supervisors, youth workers, and youth. In addition to providing valuable insight into progress and areas of improvement, Roca also utilizes its ETO data to provide customized reports to funders, including accountability reports for SSYI funding.

Data collected from the youth worker supervision and quarterly organization-wide reports is used by Roca to inform decisions regarding both program offerings, as well as staff professional development. By aggregating data and by tracking trends in arrests, sustained employment, and other shifts in youth behavior, Roca is able to determine how many youth there are at each of the five Stages of Change. This enables Roca to accurately project both the required number and content of program offerings, creating stage-based programming tailored to the needs of the youth in real time. This information is also extremely useful when considering professional development for staff. In addition to quarterly trainings, each month Roca engages staff in topical trainings lasting three hours, led by a combination of Roca staff and an outside consultant. The information obtained from youth worker supervision and subsequent feedback provides insight into the needs of the group, which allows topics to change based on the issues and challenges faced by staff. Topics and structure of these meetings have included a wide-range of issues, from training in substance abuse and teen pregnancy, to youth development, and even motivational interviews. By creating customized professional development opportunities for staff based on data, youth workers are aptly prepared to address specific issues, resulting in stronger overall intervention for youth.

Data Challenges at Roca

As Roca continues to evolve and utilize its data system for program improvement, the organization also continues to build the capacity of its entire staff both for data collection and data use. For youth workers, Roca has implemented a daily data entry requirement in order to capture youth contacts and to ease the potential burden associated with weekly or monthly inputting sessions. Although this change required youth workers to manage their time accordingly, it has also provided youth workers a deeper understanding of the connection between their daily inputs and desired outcomes. Youth workers are able to access customized reports within the data system that provide them with a greater understanding of a youth's predicted trajectory as well as insights used to consider the appropriate next step. With the correct combination of support and training, youth workers are growing in their ability to more deeply understand the data collected and to use it as a tool for their own continuous improvement, as well as helping to support Roca's desired outcomes.

For Supervisors and senior management, the increased flow of daily information has changed their responsibilities for both youth worker supervision and program management. Supervisors are now able to spend less time overseeing data entry and more time coaching youth workers to ensure they understand the data. Acting as a guide through the weekly meetings allows the Supervisors to determine how the data can be most useful in charting a course for each young person, and to provide a more holistic perspective on their caseload. With Efforts to Outcomes becoming a daily tool across the organization, both Supervisors and senior management have been required to spend more time building the capacity throughout the organization for daily use, rather than simply when information is requested.

Roca's Future Plans

While Roca has made great strides to improve the lives of youth in Chelsea and Springfield, the organization recognizes there is more work to be done. Building upon its success, Roca plans to increase services offered at its site in Springfield. Since opening its secondary location in 2010 with 50 youth, Roca has surpassed its goal to increase its services in Springfield to 180 youth served by the close of 2012, and is well on its way to meet its goal of 250 high-risk young men by 2014. Roca will continue to monitor the progress of both its sites and, as always, will be paying close attention to both the short-term benchmarks and long-term outcomes of youth in programming.

Roca also plans to continue with a third-party evaluation of its model. In December of 2011, Roca hired the policy research organization Chapin Hall to conduct an extensive study on Roca's impact. This study, the first part of which is due fall 2012, will be a formal implementation report of the new High-Risk Intervention Model. Implementation of the model will be tracked over the next several years. In addition, Chapin Hall has started work on separate cost-benefit analysis of the Roca model and will review and compare public data to participant outcomes to inform an impact evaluation set for 2014.

BUILDING THE CAPACITY FOR DATA USE:
A CASE STUDY OF OUR PIECE OF THE PIE

Summary

This brief presents observations from AYPF's case study of Our Piece of the Pie. The purpose was to examine how the organization uses data for program improvement and decision-making. These findings are drawn from interviews with staff at every level of the organization, key partners and funders, as well as youth participants.

The following summarizes our key findings from the site visit, and outlines Our Piece of the Pie's four elements of success that contribute to the organization's success in building capacity for data use:

1) **A Theory of Change that deliberately maps program activities to indicators of short and intermediate outcomes**
2) **An organization-wide commitment to data use that depends on a robust data system and consistent data collection**
3) **The ability to effectively report relevant outcomes for internal and external use**
4) **A human capital development strategy that aims to support the ongoing learning needs of staff, with a focus on performance management**

INTRODUCTION

Our Piece of the Pie (OPP), in Hartford, Connecticut, has a long history of providing a range of academic, workforce and youth development services to help youth prepare for high school graduation, entrance into college, and sustainable employment. OPP was founded in 1975 as a local community services organization, then called South End Community Services, and has evolved over its 37 years into an organization focused exclusively on improving young people's outcomes in education and employment. President/CEO Bob Rath took the helm in 1994, joining the organization from a background in criminal corrections. Under Rath's leadership, the organization was rebranded and renamed and has since transformed into a robust multi-service, youth-serving agency with an annual budget of $5 million that in 2011-2012 served 853 youth in its signature Pathways to Success program.

OPP provides programs for youth from age 14 through 24, with a particular focus on the over-age and under-credited population at risk of not graduating from high school or finding sustainable employment without support. In order to provide well-targeted and differentiated services based on youths' needs, OPP has identified four cohorts, or "pathways," within the population served: out-of-school youth with no diploma; in-school youth who are at risk of dropping out; in-school youth who are on track for graduation; and the "postsecondary pathway" composed of youth who utilized OPP services and who have graduated from high school.

Our Piece of the Pie has achieved several compelling outcomes that demonstrate their success in engaging youth in pathways to graduation and careers. Based on 2012 data of youth enrolled in OPP, 88 percent were eligible to obtain a high school credential compared to 60 percent in Hartford

Public Schools. Additionally, 76 percent of OPP participants eligible continue to some sort of postsecondary education, and 65 percent who obtain employment assistance retain jobs for 12 months or longer.

The OPP Model

The service model at Our Piece of the Pie is delivered through the Pathways to Success program, which consists of five service areas:

- Youth Development Services: Every youth receiving services through OPP is assigned a Youth Development Specialist who serves as a case manager responsible for helping create a youth development plan, facilitate referrals to services both within and beyond the organization, and ensures that each youth develops a relationship with a caring adult to serve as an advisor and advocate. This relationship is the cornerstone of the model.

- Youth Business: These services include training in pre-employment skills for younger youth aged 14-16, through a setting and curriculum that is entrepreneurial and focused on art, music and carpentry.

- Employment Services: Youth ages 16 and older are provided with career development and competency training that leads to an internship or paid employment.

- Educational Services: These services provide online options and tutorials for credit retrieval and college preparation coursework through online tools (Web2020 and Ped Foster), as well as postsecondary awareness programming, including college tours.

- Vocational Services: Youth who have received a high school diploma or GED may access career-focused training in specific professional skill areas such as Office Technology or customer service certification.

The Pathways to Success program is offered in three different settings: in the community, in high schools, and in community colleges. OPP manages Opportunity High School, a public high school run in collaboration with the Hartford Public Schools serving an over-age and under-credited population that has not been successful in traditional school settings (see textbox at end of section). As a result of its success implementing the Pathways to Success service model in Hartford, OPP has undergone an expansion effort to operate its Pathways program in the community in Norwich, CT and in the high school setting in Bloomfield, CT.

Elements of Success at OPP

Our Piece of the Pie is exemplary in several respects related to using data to improve outcomes for youth. The following are the core elements that contribute to the organization's success in building capacity for data use:

1) **A Theory of Change that deliberately maps program activities to indicators of short and intermediate outcomes**
2) **An organization-wide commitment to data use that depends on a robust data system and consistent data collection**
3) **The ability to effectively report relevant outcomes for internal and external use**
4) **A human capital development strategy that aims to support the ongoing learning needs of staff, with a focus on performance management**

Element of Success #1

A Theory of Change that deliberately maps program activities to indicators of short and intermediate outcomes

OPP has honed its focus on the outcomes and indicators of progress that contribute to youth success. The interim and long-term outcomes at the center of OPP's service delivery model are clearly articulated in the organization's Theory of Change and measured through OPP's data system.

The academic, youth development and workforce outcomes identified in OPP's Theory of Change focus on a set of short-term outcome, tiered intermediate term outcomes based upon period of engagement with a youth, and desired ultimate outcomes. Each group of outcomes includes measures for participants in all of the service areas offered at OPP.

The short-term outcomes include satisfactory high school performance; satisfactory college performance; increased career competency skills; increased internship skills and performance; satisfactory performance in youth business program; and participation in life skills training.

Intermediate outcomes track the milestones of youth participants as they progress through OPP's programming. The intermediate outcomes include annual grade promotion or completing GED components; completed Career Competency Development Training; successful completion of internship: successful completion of youth business program; increase in life skills; award of high school diploma or GED: and satisfactory performance for 90 days in part-time job.

Given its dual focus on educational attainment and job placement, OPP also tracks award of postsecondary credential (Bachelor's degree, Associate's degree or Vocational Certificate) and youth gainfully employed for 2 years (earned $21,000 for single household) as its desired ultimate outcomes for youth participants.

Our Piece of the Pie uses the Efforts to Outcomes (ETO) software to track participant data[7]. Direct service youth workers are responsible for documenting a full range of inputs and activities that, over time, can

[7] Efforts to Outcomes is a web-based case management system by Social Solutions, known to be highly customizable, broadly used by social service organizations to collect a range of data.

contribute to short or long-term success (as defined by OPP's Theory of Change). Youth Development Specialists record participants' program activities, such as credit retrieval coursework, attendance at pre-employment classes, or college awareness programming. Additionally, as the supportive relationship with the Youth Development Specialist has been found to be critical to youth engagement, these youth workers at OPP are responsible for documenting each contact they have with individual participants in ETO. The wealth of information collected ties into OPP's Theory of Change, which links programming and activities provided to specific youth categories with the expected interim and long-term outcomes. Staff works to understand a participant's progress toward desired outcomes by analyzing these programmatic inputs in combination with continued contact with their Youth Development Specialist.

Though there has been significant groundwork laid by the organization to understand what markers of progress are important to fostering successful outcomes, the work to refine these indicators continues. A sizeable investment from a local family foundation has enabled a three-year project to build OPP's internal evaluation capacity. The major purpose of the investment is to conduct a third-party formative evaluation of OPP's Pathways to Success model, which the organization hopes will validate the implementation process and data used at OPP to link programs and outcomes. To manage this evaluation process, OPP created a new position, Senior Director of Research and Organizational Performance. Sean Seepersad, recently hired in this position, is working to assess the current data system's capacity and to determine how to best improve the data collection and analysis. The starting point for this project is to create a detailed logic model to further articulate the organization's short, intermediate, and long-term goals and outcomes. The Research Director is also working toward using outcomes tracked by ETO to determine what short- and intermediate-term measures are the most valid indicators of progress.

Element of Success #2
An organization-wide commitment to data use that depends on a robust data system and consistent data collection

OPP has an organization-wide commitment to using data not only to track and report individual and aggregate outcomes, but also to foster a culture of continuous improvement that hinges on a strong data system. An initial push toward building a data reporting system occurred in 2000 when OPP received funding as part of a $23 million grant from the U.S. Department of Labor to implement the Youth Opportunity (YO!) program in Hartford over the following 6 years. The Federal Youth Opportunity Grants grew out of the 1998 Workforce Investment Act (WIA) authorization and aimed to bolster other local efforts to help youth in the transition to adulthood, with the goal of producing a community-wide impact. OPP was selected as the community-based partner in Hartford for delivering services to help youth find better jobs and increase their educational attainment. The YO! Program, which blended case management services with educational support and job-readiness training, had certain reporting requirements that challenged the city of Hartford to build a data reporting system in order to comply with these stipulations.

For the YO! Grant, the U.S. Department of Labor built a specialized data management system for OPP to use throughout the city of Hartford. This data management system was transitioned to an ETO platform in 2006, and remains hosted by the city of Hartford. Today, OPP continues to use this ETO system and it is used for data management across all programs at OPP. An advantage of a data tracking platform hosted by the city is that public partners can access data directly from OPP's system. Additionally, some common indicators are tracked across different programs in the city, as Hartford requires OPP to collect demographic measures that are common to all agencies using the city's ETO enterprise. In order to continue to utilize this system most effectively, OPP is currently customizing its ETO platform to track the activities and desired outcomes reflected in its own Theory of Change.

While a commitment to collecting and using data permeates activities throughout the organization, improving and growing the organization's data capacity at all levels is an ongoing process. Though senior leadership have fully embraced data analysis and rely on data to inform their internal and external work, some data-related challenges have emerged for staff working directly with youth as well as those who supervise these staff. For example, OPP youth workers are responsible for documenting all manner of interaction with enrolled youth, which is often a time-consuming endeavor. The data from the direct service staff has been critical in providing a range of program-level data to the organization's leadership, where it is systematically reviewed and used for decision-making. It has been essential for program directors who manage staff to communicate to youth workers that tracking their efforts and youth outcomes is not meant to be punitive, but rather a tool to aid in continuous improvement both at the individual and organizational levels.

Program directors explain that there are benefits to youth workers engaging in the data collection and analysis processes, including achieving a deeper understanding of the organization's Theory of Change, goals of the program, and how their own efforts and competencies fit into the big picture. Youth Development Specialists also recognize that maintaining consistent data on efforts with participants and the associated outcomes enhances their capacity to advise youth. For example, by tracking progress of in-school youth toward graduation a Youth Development Specialist is able to advise individual youth on when to take specific steps in the college application process.

Although Rath's goal is for all staff to progress in their data use to "ownership, proficiency and mastery," there certainly are a few "power users" of data management tools at the organization. While several staff are concerned with the lack of checks and balances in data entry, there are also several individuals within the organization who scrutinize and analyze the collected data and try to encourage staff to enhance their documentation of efforts with the youth. At the executive level, OPP's leadership is efficient at using data to make quick, real-time decisions and to know if the organization is tracking toward organization-wide goals. For example, monthly data is reviewed by the Chief Operating Officer before meetings with the President/CEO and questions are asked about every level of the organization, "from frontline to finances," based on these monthly reviews.

Element of Success #3
The ability to effectively report relevant outcomes for internal and external use

Partner organizations and funders of OPP overwhelmingly praise the organization for its commitment to collecting and analyzing meaningful data. OPP's main funders[8], for example the Connecticut Department of Children and Families, look to OPP as an example of how to identify and track relevant indicators. Monthly reports are submitted by each department within OPP, and information in these reports is evaluated to gauge if programs are achieving the outcomes identified

[8] Other main funders include Capital Workforce Partners, United Way, Hartford Public Schools, Hartford Foundation for Public Giving, and Nellie Mae Education Foundation.

in the Theory of Change. A monthly cross-organization report enables the Director of Performance Management and Chief Operating Officer to evaluate data from a big picture perspective to determine the factors influencing results across the Pathways to Success program and which staff need support, particularly the Program Directors.

Though much data analysis at OPP is done manually, the majority of the information needed by different departments in the organization was reported to be readily available by staff. The External Affairs team, responsible for marketing and development, feels confident in the availability of data and reported they are easily able to get the data they need to show outcomes for both the press and funders. Much of the data needed for external reporting can be drawn from monthly cross-organization reports or run directly from ETO, for example, data detailing outcomes for a specific cohort of youth that are relevant to a particular funder or the number of hours each Youth Development Specialist spends with individual youth. These reports drive decisions about what types of grants to seek out based on programmatic areas and results aligned with the Theory of Change.

Element of Success #4

A human capital development strategy that aims to support the ongoing learning needs of staff, with a focus on performance management

A series of financial and technical assistance investments in OPP over the past ten years have enabled the organization to move beyond the sole focus on data collection, toward a focus on performance management. These investments, including grants from the Hartford Foundation for Public Giving and the Edna McConnell Clark Foundation, have enabled the organization to steadily build organizational capacity to better serve youth and to establish key staff functions related to data use. Critical to enhancing organizational data capacity was the development of a Research and Organizational Performance Department equipped with a web-based information system, HR Online, to track staff development, trainings, and relevant feedback. This department incorporates elements of research, evaluation and performance management. OPP's Director of Performance Management was hired for the task of integrating a performance management system focused on matching staff performance with desired outcomes.

A collaborative effort between the Director of Quality Assurance, Human Resources Director and newly-hired Talent Development Director, the performance management system was rolled out in 2011 to better understand what staff efforts are working to bring about positive outcomes with youth. The system attempts to match programmatic information, such as participant activities and outcomes, to specific staff efforts and activities that lead to these outcomes. A number of tools and protocols exist across the organization to provide inputs into the performance management system. Programmatic information is drawn from the ETO database; while HR Online is being used to track staff efforts, including feedback, training, and progress towards goals. In combination, this information is used in employee performance reviews.

OPP also envisions its Talent Development Director to be utilized as an internal "Youth Development Specialist" focused on developing staff talent. To this end, OPP is building up the HR Online information resource to collect information on outcomes linked to individual employees' efforts. Using this information, the Director of Talent Development works to determine how to provide trainings (engagement strategies and youth development principles) and individual professional development for staff, creating “individual talent development plans.”

Data Challenges Faced by OPP

A reality at OPP, and at many youth-serving organizations, is the heavy burden of tracking outcomes and utilizing data that often falls on programmatic staff. Program Directors at OPP spend significant time reviewing case notes, which, due to other responsibilities, often occurs outside of normal working hours. As direct service staff do not currently use data extensively for case management, more often information is logged out of obligation rather than substantive use. Programmatic staff do agree that working with ETO has forced them to be more intentional and that prior to recording efforts in ETO, information collection meant little more than attendance tracking and bi-weekly reports on paper. However, Youth Development Specialists can now use information in ETO to create more detailed individual reports for their monthly meetings with each youth in their caseload. Similarly, program directors hold biweekly “case conferencing” meetings with program staff and can review data on individual youth or run queries in ETO to determine which youth should be discussed in these meetings.

There is a particularly onerous data burden on the program staff and directors that are required to enter the same data into OPP’s database and that of the Department of Children and Families (DCF), which is responsible for a large part of funding and participant referrals. An additional challenge with data input is that for many OPP staff mobility is necessary to carry out their responsibilities, leaving little time spent with regular access to computers. Currently, OPP is attempting to use technology to account for this challenge and has experimented with supporting staff with additional tools, such as an echo pen and voice recognition software to record data directly into Microsoft Word, and a portable tablet to enable use of ETO while out of the building.

A key goal at OPP is to continue enhancing the organization’s internal capacity so that data is less of a burden and systems are nimble enough to allow for easier data manipulation and analysis. Since much of the current analysis of results requires manual analysis and tracking relies on managers hand-selecting at-risk program participants to discuss in case conferencing, this process is very time-consuming. For example, the monthly OPP-wide progress report is created manually; there is not currently a method to source directly from ETO into this template. On the horizon is the Data Integration Project being led by OPP, which will enable the organization to integrate data from systems serving youth through education, workforce development, and youth development services, regardless of the data source. This effort is currently related specifically to integrating data from OPP’s ETO with that from Hartford Public Schools. This integration of data is expected to ease the burden of significant manual review and data manipulation.

Although the Efforts to Outcomes platform for data management is used at all levels of the organization, staff perceive significant gaps in the capacity of the system to produce the types of reports they desire. Several direct service employees agree that though ETO is a great database for inputting information, it is hard to use it to output data to tell a story. Other direct service employees are aware that it is a complex system that has some capacities they do not use but that could enhance their practices with youth, such as a follow-up tool, a to-do list, and the ability to run multiple queries and produce useful spreadsheets. Some users at OPP described an ideal system that would provide them with warning indicator alarms such as red flags or the ability to run custom reports with high-risk youth highlighted.

Looking Ahead

The future is promising for Our Piece of the Pie as it continues to strengthen its programming with Hartford's youth and expansion into new communities. The organization is evolving quickly, and the interrelated efforts in data use and performance management that are currently underway have the potential to propel OPP beyond the excellent groundwork already laid. As a leader in reaching hard-to-serve students that has broad partner support across several sectors, OPP is moving ahead with plans to expand its service model, starting with opening a new program in Norwich. President/CEO Bob Rath also hopes in this next chapter to have OPP become a charter management organization and continue to make the Pathways to Success model more widely available to youth. The organization's long-range plans include opening three new high school settings, six community college settings and two community settings for its Pathways to Success program. With its ability to track participant outcomes that are linked to a Theory of Change, consistent data collection and a strong data system, effective reporting capabilities, and a performance management system focused on further developing human capital, OPP is certainly well-positioned to continue to grow.

Sustaining a Data Culture in a School Environment: Opportunity High School

Delivering the Pathways to Success program in a full-school model at Opportunity High School (OHS) has enabled a cohesive culture of data use. This is in part due to smaller number of youth in each Youth Development Specialist's caseload—approximately 25 individuals, versus approximately 65 at OPP's headquarters. Also, the structure of OHS enables Youth Development Specialists to meet with each student for 20-30 minutes per week during school, and to spend an estimated 10 minutes on data documentation after each meeting. OHS also provides a wraparound environment with daily interaction with students, yielding the opportunity to document various aspects of academic, social-emotional, and behavioral information.

Multiple rubrics and forms are utilized at OHS to facilitate information sharing among staff. Teachers initiate contact with Youth Development Specialists via the "student talk form," a method of indicating course failures and missing assignments to these case managers. Teachers may also use the "reflection log form" to report minor infractions to Youth Development Specialists and the principal. School attendance reports are run monthly from the Hartford Public Schools data system (PowerSchools) with students grouped by each Youth Development Specialist's caseload. This process is valuable in understanding youth engagement in school, but takes several days and requires a great deal of manual analysis. As is protocol across the organization, attendance information is input into ETO, along with information about students' participation in programming and updates from meetings with Youth Development Specialists. Currently, there is not a system to easily enable sharing between the data tracked by OHS in ETO and the standard academic and behavioral information tracked by the Hartford Public Schools' PowerSchools platform. However, a new data integration initiative is underway that will help address this challenge.

The Youth Development Specialists at OHS are supervised by a Director of Youth Development Services who spends near 40 percent of his time reviewing data. In his supervision of the Youth Development Specialists, a rubric to evaluate their effectiveness and adherence to the OPP model is utilized. Evaluation areas include Standards of Excellence; Commitment to School Community; Program Value Added; and Foundational Professionalism (which incorporates areas such as attendance, respect and adherence to policies). This rubric is informed by an informal observation form that enables the Director of Youth Development Services to track progress and next steps for individual Youth Development Specialists in each of the areas identified on the rubric.

BUILDING FIDELITY THROUGH DATA: A CASE STUDY OF THE DIPLOMA PLUS NATIONAL NETWORK

Summary

This brief presents observations from AYPF's investigation of the Diploma Plus national network to examine how the staff at the national and regional levels use data for program improvement and decision-making. These findings are drawn from document reviews and interviews with staff with national, regional, and school-based staff.

The following summarizes our key findings from the site visit, and outlines Diploma Plus' three elements of success based upon data use at the national network level:

1) **Development of tools and protocols that allow evaluation of fidelity to the Diploma Plus model**
2) **An organizational structure which fosters individualized support to schools and districts grounded in the ongoing use of data and analysis**
3) **Data collection mechanisms that create a continuous flow of information to track progress at individual, school, regional network, and national levels**

INTRODUCTION

Diploma Plus is a non-profit education organization that focuses on re-engaging urban youth at risk of dropping out of high school. Originally founded in 1996 as a pilot program for 100 students in Boston, Massachusetts, Diploma Plus has developed and currently implements a school model that provides rigorous and individualized educational experiences for students. Since its inception, Diploma Plus' goal has been to create small high schools with an emphasis on performance-based systems in order to "increase opportunities for students placed at-risk so that they can graduate college and career-ready."

Combining content knowledge with real-world applications in a meaningful context, Diploma Plus engages at-risk students through its student-centered curriculum. Students are allowed the flexibility to demonstrate mastery of course material in multiple ways and to learn at their own pace. This is especially important when addressing Diploma Plus' target population of students who are over-aged and under-credited. By engaging these students in an educational experience which is both personalized and relevant, Diploma Plus is able to re-engage hard-to-serve students to produce substantive academic gains.

After experiencing success in Boston, Diploma Plus garnered attention from several philanthropies, and in 2003 the Bill and Melinda Gates Foundation provided funds to support replication of 10 schools in New England and New York City. The success of replication in these communities led to additional investments by the Gates Foundation and other philanthropies to extend the work to 12 additional partnerships with schools. To date, the organization has grown into a national network serving over 3400 students, and spans 17 separate schools in six geographic regions across the United States. Each school consists of between 100 and 400 students, with enrollment lasting two to four years.

The Diploma Plus Model

The intervention strategy and overall structure of Diploma Plus schools is guided by the Four Essentials. The Four Essentials touch upon the core elements of the Diploma Plus model, and as the name suggests, are the essential components of a successful Diploma Plus school. In order to ensure fidelity of the model and consistency across the national network, each school in the network is required to implement the Four Essentials, which consist of the following, according to the Diploma Plus literature:

- A Performance-Based System that includes competency-based assessment and performance-based promotion
- A supportive school culture that intentionally creates positive relationships among students, staff, and parents/families
- A Future Focus that provides postsecondary education preparation, career preparation, and civic engagement opportunities
- Effective internal and external capabilities to successfully implement the Diploma Plus model

Central to the Diploma Plus model is the development of curriculum, instruction, and assessment which is aligned with a Performance-Based System. A Performance-Based System differs from traditional school models, as it allows for greater flexibility for credit accrual, required seat time, and course scheduling. The Diploma Plus Performance-Based System is defined by four key elements. First, schools must implement a rigorous curriculum which intentionally plans courses, units, and lessons to build students' capacity for critical thinking. Second, schools must utilize effective instructional practices which align classroom activities to defined standards and encourage data-based, school-wide instructional initiatives. Third, schools must incorporate authentic assessments which foster student connection between course content and relevant, real-life applications of their knowledge through capstone projects and/or portfolios. Fourth, schools must integrate a promotion and graduation structure that includes clear promotion and graduation criteria, methods which facilitate students progressing at their own pace, and a competency-based tracking and reporting system. By including all four elements of the Diploma Plus Performance-Based System, schools are better able to increase the flexibility to meet the learning needs of students and provide effective engagement with the targeted at-risk population.

The Performance-Based System is reinforced by a set of core Diploma Plus Competencies. The Competencies were designed by Diploma Plus to help facilitate students' understanding of the standards set by states and local districts and highlight what is most essential in a given discipline. The Competencies provide students with a consistent lens through which they examine and explore subject knowledge. For example, one competency in the field of mathematics is for students to connect mathematical ideas to other mathematical concepts, other disciplines, or real-world situations. In a classroom, this might be demonstrated by analysis of a data set, such as Olympic track and field times, and using trends within the data to make educated predictions about future, such as likely times forty years in the future. In order to complete this assignment, students must create a linear equation representing the trends from past data to make their predictions.

Diploma Plus has identified a set of Competencies for several subjects, including: English language arts, mathematics, social studies, science, health and fitness, foreign language, language acquisition, visual and performing arts, technology, career and technical education, and personal skills. While the content of a given course may increase in complexity as students progress through the curriculum, the material covered is always taught using the Competencies as a framework. Affording students this consistent structure for analysis serves to emphasize critical thinking skills, enabling students to develop knowledge and mastery in different subject areas. The Competencies also provide a framework for Diploma Plus teachers to authentically assess student work and provide meaningful feedback to students. Each Competency is paired with a rubric, spanning a score of one to five. Progress from a score of one to a score of five corresponds to the steps necessary to successfully master a Competency, with each increase corresponding to progress from "remembering," to "understanding," to "applying," to "analyzing," and finally, to "creating/evaluating."

Students experience the Diploma Plus model in three distinct phases: the Foundation Phase, the Presentation Phase and the Plus Phase. The Foundation Phase covers students with skill levels below 9th grade, while the Presentation and Plus Phases apply to students at the 9th-11th and 11th-12th grade skill levels, respectively. In all three phases, students work on projects and assignments with clearly defined competency expectations and content objectives and are promoted or graduate as soon as they have demonstrated these goals, regardless of the amount of time they have spent in the phase. Students compile, present, and defend a portfolio containing their best work across subjects. Their successful presentation/exhibition determines their phase promotion as well as graduation candidacy. Students in the Plus Phase also participate in internships, college courses, and community action projects in order to support their transition to postsecondary education and the workforce.

Diploma Plus National Network

The Diploma Plus national network consists of several integrated levels of organization. Each of Diploma Plus' 17 schools is placed in a regional network. There are six regional networks, including the New York City Metro, Mid-Atlantic, New England, Mid-West, West, and South networks. The Diploma Plus network offers its programming through small, alternative high schools run by either districts or charter schools. As a result, each school differs slightly in order to accommodate the unique circumstances of each site and their students.

Despite differences from site to site, each school and region is part of the Diploma Plus national network, which provides consistent design principles, structural elements, ongoing training, and supports to ensure fidelity to a well-established model. The national network's emphasis on consistency from region to region and school to school also extends to Diploma Plus' staffing. Diploma Plus employs Network Directors and Implementation Coaches, the school-based members of the national staff responsible for collecting data and providing network-level trainings and support to each regional network. These individuals are also charged with providing oversight to the progress of each school toward consistent implementation of the Diploma Plus model as embodied through the Four Essentials.

In recent years, Diploma Plus has made efforts to refine its internal processes to allow for greater consistency across the national network. Diploma Plus has prioritized and articulated a set of critical data elements to be collected across sites and has provided trainings across the network on data collection and usage at all levels of the organization. The responsibilities of national leadership and regional staff are focused on issues of model adoption and implementation. With a clear understanding of the model and its desired implementation, individual site accountability can be more easily assessed, and support mechanisms can be created for those schools in need.

Through its unwavering dedication to ensure fidelity of its model, Diploma Plus has experienced great success in providing quality academic and career preparation for at-risk youth. When compared to schools with a similar student population, Diploma Plus schools tend to have higher attendance rates, retention rates, and passing rates on state tests. For example, in its largest regional network (New York City Metro) roughly 90 percent of students passed their state English and Math tests, while 91 percent of students in the Plus Phase graduated. Of those graduates, 82 percent were accepted into and planned to attend college. In addition to increases in graduation and college placement, Diploma Plus also leads to increases in student perception of their academic experiences. In surveys of Diploma Plus students across the network, 92 percent of students felt that Diploma Plus had improved their academic performance compared to their former schools. Additionally, 87 percent of students reported greater interest in college, and 95 percent reported they felt better prepared for adulthood when compared to their prior school experiences.

Elements of Success at Diploma Plus

Our study of Diploma Plus' national network has revealed three elements of success based upon data use at the network level:

1) **Development of tools and protocols that allow evaluation of fidelity to the Diploma Plus model**
2) **An organizational structure which fosters individualized support to schools and districts grounded in the ongoing use of data and analysis**
3) **Data collection mechanisms that create a continuous flow of information to track progress at individual, school, regional network, and national levels**

Element of Success #1
Development of tools and protocols that allow evaluation of fidelity to the Diploma Plus model

As a national network, Diploma Plus strives to implement its model consistently in districts across the country. Recognizing the need to make adaptations based upon local context, Diploma Plus attempts to standardize the foundational requisites of a successful implementation of its model across all its schools through its Four Essentials. The national program staff has developed a suite of tools to track desired program components and common data elements across sites. These tools both serve as a measure of each sites ability and desire to implement the Diploma Plus model with fidelity as well as a gauge of the "health of the network," according to Executive Director, Akili Moses Israel.

A central component of this set of tools is the Model Implementation Rubric. Developed by Diploma Plus national staff, the Model Implementation Rubric aligns with the Four Essentials and determines where a school places on the rubric's scale, from "little evidence," "needing attention," "satisfactory," to "very good." Several subcategories within each of the Four Essentials represent the desired elements of each Essential, providing concrete metrics for each site to consider. These include Supportive School Culture;

Positive Relationships; Youth Leadership and Voice; Cultural Responsiveness; Postsecondary Education Preparation; Civic Engagement; Fundamental School Needs; Programmatic Autonomy; Shared and Effective Leadership; and Efficient and Strategic Use of Data.

The Model Implementation Rubric review is completed twice annually, once mid-year, and once at the end-of-year. Recognizing that each school site is unique, the rubric takes into account several data points across a school, including data from classroom observations, reviews of lesson and student support plans, interviews, DP.net (the online gradebook and student information system), and other information collected by Network Directors and Implementation Coaches through their interactions with the school. Through this comprehensive and consistent evaluation of each school, Diploma Plus uses the Model Implementation Rubric to ensure that each site adheres to the Four Essentials and provides the supports necessary to serve their students. The Rubric also helps national network staff determine what resources and staffing a school needs to be successful. As Diploma Plus has refined its model, it has become clearer what successful implementation looks like at the school level. With a set of reliable criteria, national staff are able to use Rubric scores to objectively assess individual sites and, should the need arise, make the challenging decision to remove noncompliant schools from the network.

In additional to the bi-annual Model Implementation Rubric, the national network staff, specifically Implementation Coaches, also complete Monthly Implementation Reports to track the support and services they are providing to each of their schools. These Reports catalogue the accomplishments, activities, and plans which have been conducted, observed, or proposed by the Implementation Coach for each school. Primarily used by the Network Directors, Director of Programs, and Executive Director, these monthly Implementation Reports gauge the volume and type of services needed by schools as well as inform resource allocations decisions and network professional development. Paired with the school level data, the Monthly Implementation Reports help provide a comprehensive picture of each school site for the national staff as well as a good comparison across sites. The regular data reports are critical to gauging the overall success of individual school's efforts to implement the Diploma Plus model.

Element of Success #2

An organizational structure which fosters individualized support to schools and districts grounded in the ongoing use of data and analysis

The success of the Diploma Plus model is facilitated by embedded partnerships between the national network and local school districts. The school leadership and teachers are employed by the school district; Diploma Plus provides on-site support through its Network Directors and Implementation Coaches. These Diploma Plus national staff work collaboratively with each other as well as with the national leadership team to support schools and districts across the network.

The Network Directors work across all schools in their region, both to serve as the primary liaison to the school district as well as provide support to individual sites in partnership with the Implementation Coach. Given their responsibilities and contacts across multiple school sites, Network Directors are ideally positioned to build connections between schools, make determinations for network-wide support and professional development, and provide a network perspective to the national leadership. In addition to participating in the bi-annual Model Implementation Rubric evaluation team, Network Directors fill a variety of other support roles with the school district, which often relieve some of the external relations responsibilities from the school principal. For example, the Network Directors are responsible for sharing the information gathered through Diploma Plus' varied tools with the school district leadership. Aligned with Diploma Plus' commitment to transparency, Network Directors take the time to analyze the data, explaining the progress of the Diploma Plus school in achieving desired academic outcomes with overage, under-credited students.

Working collaboratively with Network Directors, Implementation Coaches are focused on supporting school leaders to develop the vision, systems, and capacity to embed the Four Essentials into the school. Through regularly scheduled visits to each school, Implementation Coaches provide a range of professional development opportunities including creating all faculty workshops or working one-on-one with teachers in a master educator role. Additionally, they provide coaching and guidance to the school leader around creating a performance-based system. Often former school leaders themselves, Coaches serve as a thought partner and a mentor to school leaders, helping them rethink traditional school structures and policies and to create the best environment for their student population. During a coaching visit, an Implementation Coach will work with a variety of teachers and administrators, many of whom possess varying levels of knowledge regarding Diploma Plus model implementation. For example, the Coach may be requested to work one-on-one with specific teachers who are struggling to develop lesson plans that provide competency-based learning opportunities for students. Additionally, the Coach might engage with the student achievement support team, a group of teachers focused on building the additional supports both inside and outside the classroom for students to be successful. Finally, the Coach might review the School Performance Plan with the principal to ensure the school is addressing its desired areas for improvement and growth.

In addition to the school-based national staff, Diploma Plus has an Executive Director, Director of Programs, Data Manager, and Director of Finance. This lean administrative structure ensures that the bulk of the network's resources are directed towards supporting their schools. The central office staff has external responsibilities related to fundraising and participation in other regional networks, yet they spend the majority of their time supporting schools. For example, the Data Manager often produces comparative reports for school leaders in order to share the information with a school's leadership team or faculty. The Data Manager also analyzes data for trends to support decision making and resource allocation from the national network to the regions and individual schools. Given Diploma Plus' reliance on data to drive decision making, the national leaders work hard to ensure they are building capacity throughout the network to both collect and support the use and analysis of data.

In order for the national staff to support each school, they are guided by the School Performance Plan, an annual plan which guides professional development, training, and school improvement strategies. The School Performance Plan is created by the principal in collaboration with the school leadership team, Implementation Coach, and Network Director. Unlike many of the other tools used to capture data at a point in time, the School Performance Plan is a living document that continues to be refined as the school grows and adapts with its teachers and students. It provides the most accurate and up-to-date source of information on the school's vision and areas for support for all members of the team, both school-based and central office.

Element of Success #3
Data collection mechanisms that create a continuous flow of information to track progress at individual, school, regional network, and national levels

At the core of Diploma Plus' network are mechanisms for collecting and analyzing data on a continuous basis. The information gathered both at the student and school level is recorded using several tools, including the DP.net website, Monthly Implementation Reports completed by Coaches, Quarterly Data Reports collected by school data liaisons, bi-annual Model Implementation Rubric, and annual School Performance Plan. While each tool provides Diploma Plus students and schools with detailed information tailored to their unique situation, collectively these tools afford network leadership the ability to perform analysis both at the school-level as well as across the national network.

Built upon its culture of data-driven decision making and transparency, Diploma Plus created a customized student-level tracking tool, DP.net. This website serves as a central online information repository and allows each of the Diploma Plus sites to share a common framework for several data elements, including performance-based lesson development, student competency tracking/reporting (gradebook and report cards), student portfolios, electronic drop box, and class websites. Developed using Class Drive[9] as its foundation, the DP.net system is primarily maintained and updated by teachers, though both students and parents of students are able to view their profiles and monitor progress. Students are able to submit work through the online portal and check class websites for assignments and course resources. While teachers primarily use DP.net to view comprehensive student profiles, it is also used as a source of professional development. Within DP.net, there is a teacher portal to share class resources and lessons plans which serves to centralize tools and resources for teachers, allowing for ongoing development and support across the teacher corps. For example, a brief scan of a teacher's online gradebook at DP.net may reveal that students are struggling to master expository writing. Using DP.net, the teacher is able to view shared lesson plans on teaching expository writing as well as communicate with other teachers throughout the network who can help share effective teaching strategies.

In addition to teacher-specific reporting, each school collects and combines school-level data to inform school improvement efforts and to share with the national network. At each school, one teacher serves as the data liaison and is responsible for producing Quarterly Data Reports. These data worksheets include information on student demographics, teacher characteristics, student achievements, and specific data request of funders (such as percentage of students who participated in a certain afterschool activity). Aggregated, this information is useful to schools for descriptive purposes as well as to monitor progress towards desired outcomes. School leadership teams often compare the Quarterly Data Reports to detect areas in need of improvement. For example, comparison of a school's Quarterly Data Reports throughout a year may indicate that attendance decreases during certain

[9] Class Drive is a full featured competency-based Learning Management System used by schools across the US developed by the web-based consulting company 1000 Paces. The online software allows educators to align courses, units, and tasks to local and state standards; provide students and parents feedback on learner mastery within and across courses; deploy an integrated digital drop box and e-portfolio system tied to learner competencies and standards; and to configure a range of reports uniquely designed for competency-based learning environments.

months in the year. Using this information, a school can consider strategies and target interventions to improve student engagement during lower attendance months.

These various tools have shaped the priority data measures included in the newly-introduced Efforts to Outcomes (ETO)[10] platform, which was adopted to centralize and streamline data collection. Customizing the ETO platform, Diploma Plus integrated its priority data measures into the system, and chose to include only the most critical pieces of information which drive decision making at the national, regional, and school level. These measures include attendance, credit accumulation, graduation rate, dropout rate, enrollment, English language arts and Math passing rates for standardized tests, college credit (offered, taken, and passed), Phase progression (movement through Diploma Plus' three phases), prioritized competency attainment (as determined by Diploma Plus' Competencies), and postsecondary education preparation. While Diploma Plus is in the beginning stages of data collection through ETO, it has been able to gather data from prior years and begin analysis. Staff believe this tool will help document student and program growth as well as serve as a better indicator of areas for improvement, both at the school and across the network.

Data Challenges at Diploma Plus National Network

While Diploma Plus has produced positive gains for students in academics and life skills, being part of a national network presents unique challenges both at the school sites and central office. Although data is critical to the operation of the network, its collection does present some challenges across the network. The suite of tools which were developed and are currently used by Diploma Plus require several different reports to be created at multiple levels of the organization (e.g. regional/national leadership vs. classroom-level or school leadership). This makes it difficult to fully streamline data use, and to provide clear, consistent reporting across the entire national network. Some data elements of the Model Implementation Rubric create similar issues regarding consistency across the network. While some of the elements apply only to certain stages of implementation (e.g. newly-opened vs. longstanding schools), other elements apply to schools regardless of the status of their implementation of the Diploma Plus model. Without a differentiated system which takes into account the unique challenges faced by schools at each stage of program implementation, the Rubric falls short of providing the national network the best universal tool to evaluate all schools at all phases. The accuracy of the Rubric is further complicated by some elements which are potentially subjective to reviewer discretion, such as the category requiring that all teachers use "instructional practices aligned to instruction." In light of these issues, Diploma Plus intends to reevaluate the Rubric to account for these discrepancies.

Additionally, the nature of the national network poses challenges for school-level staff, which are accountable to both the school district and Diploma Plus national network. For reporting purposes, a teacher might have to record information into two separate data systems, DP.net and the local district student information system. Given this possible data burden, Diploma Plus works to align their data collection and system as best as possible with the local districts so that teachers are not overwhelmed and, when possible, perform a single entry that will populate both systems. In addition, School-

[10] Efforts to Outcomes (ETO) is a web-based, performance management software developed by Social Solutions. ETO is used to help staff manage their workload, demonstrate their effectiveness, and is known to be highly customizable and broadly-used by social service organizations to collect a range of data.

level staff possesses varied levels of familiarity with both data collection and data use. Upon their arrival at a Diploma Plus school, staff may not have the knowledge or skills necessary to analyze and utilize the data to develop and grow professionally, but given the importance of data-driven decision making in the Diploma Plus network, the regional and national staff continuously work to provide the necessary training and support to school-level staff.

Looking Ahead

The Diploma Plus network will continue its deliberate growth strategy focused on building relationships with districts that have the ability to successfully implement their model. With the network increasing its focus on data collection and use through the introduction of the priority data measures and ETO, it will be able to conduct more sophisticated cross-school comparison, answer critical research questions, and continue to emphasize fidelity to the model. As a network of schools, Diploma Plus will continue to utilize data to refine its model and build capacity of its schools to support the long-term success of at-risk youth.

Diploma Plus Glossary of Terms

Four Essentials – The Four Essentials represent the four core components of the Diploma Plus model. They include a performance-based system, supportive school culture, a future focus on postsecondary/career education, and effective capabilities to implement the model across the network.

Performance-Based System –A Performance-Based System differs from traditional school models, as it allows for competency in a subject to be demonstrated as soon as students are able to master the content, allowing for greater flexibility for credit accrual, required seat time, and course scheduling.

Competencies – The Competencies compliment the Performance-Based System, help facilitate students' rigorous and relevant understanding of the standards set by states and local districts, and highlight what is most essential in a given discipline. While the content of a given course may increase in complexity as students progress through the curriculum, the material covered is always taught using the Competencies as a framework. Diploma Plus has developed Competencies for several subjects, including: English language arts, mathematics, social studies, science, health and fitness, foreign language, language acquisition, visual and performing arts, technology, career and technical education, and personal skills.

Network Director – The Network Directors work across all schools in their region, both to serve as the primary liaison to the school district as well as provide support to individual sites in partnership with the Implementation Coach. In addition to participating in the bi-annual Model Implementation Rubric evaluation team, Network Directors fill a variety of other support roles with the school district, which often relieve some of the external relations responsibilities from the principal.

Implementation Coach – Implementation Coaches are focused on supporting school leaders develop the vision, systems, and capacity to embed the Four Essentials into the school. Through regularly scheduled visits to each school, Implementation Coaches provide a range of professional development opportunities including creating all faculty workshops or working one-on-one with teachers in a master educator role. Additionally, they provide coaching and guidance to the school leader around creating a performance-based system.

Model Implementation Rubric – The Model Implementation Rubric is a tool used to determine how well an individual school's implementation of the Diploma Plus model aligns with the Four Essentials. The Rubric takes into account several data points across a school, including data from classroom observations, document reviews, interviews,DP.net (the online gradebook and student information system), and other relevant sources to determine where a school places on the rubric's scale, from "little evidence," "needing attention," "satisfactory," to "very good." The Rubric is completed twice annually, once mid-year, and once at the end-of-year as a collaboration among schools, Network Directors, and Implementation Coaches.

Monthly Implementation Report – The Monthly Implementation Report is used to track the support and services Implementation Coaches are providing to each of their schools. These reports catalogue the accomplishments, activities, and plans which have been conducted, observed, or proposed by the Implementation Coach for each school. Primarily used by the Network Directors, Director of Programs, and Executive Director, these monthly implementation reports gauge the volume and type of services needed to school as well as shape resource allocations decisions and network professional development.

School Performance Plan – The School Performance Plan is an annual plan which guides professional development, training, and school improvement strategies. The School Performance Plan is created by the principal in collaboration with the school leadership team, Implementation Coach, and Network Director. Unlike many of the other tools used to capture data at a point in time, the School Performance Plan is a living document that continues to be refined as the school grows and adapts with its teachers and students.

Quarterly Data Report – At each school, one teacher serves as the data liaison and is responsible for producing quarterly data reports. These data worksheets include information on student demographics, teacher characteristics, student achievements, and specific data request of funders (such as percentage of students who participated in a certain afterschool activity).

LESSONS LEARNED

The profiled organizations have made great strides in providing quality interventions to the disconnected youth population. In addition to the well-defined and effectively-executed strategies they have developed, each organization has emphasized a strong data culture among its staff. The results of our study have revealed several key lessons learned which we hope will aid policymakers, practitioners, and other youth-serving organizations in their efforts to constantly refine and improve the programs and services offered to youth. These include:

- **The need for a clearly articulated theory of change**
- **Data collection which mirrors program needs**
- **A strong organizational commitment to professional development for all staff related to data collection and data use**

Our observations lead us to believe that these lessons learned are critical to developing and sustaining a data culture focused on continuous improvement. The lessons serve as a synthesis of the elements of success included in the prior descriptions of the programs, and are described below.

The Need for a Clearly Articulated Theory of Change

At the core of each of our profiled programs was a well-developed theory of change which mapped the organization's specific intervention strategy to desired program outcomes. In this manner, the theory of change serves as a foundation for each organization, providing tangible connections between practices and desired outcomes. As the organizations grew and developed, so did their ability to collect and use information related to the outcomes charted in the theory of change. The resulting data has been used to identify existing problems, create a set of interventions which address those problems, and allow for the opportunity to put these interventions to the test. Through careful consideration of both the viability of the theory of change and the desire to continuously improve, these organizations analyzed short-term and long-term outcomes in order to modify the theory of change, model, and subsequently, their results. Thus, a clear theory of change served as the framework through which each organization was able to ground its efforts toward continuous improvement.

Data Collection which Mirrors Program Needs

To complement the theory of change, each organization underwent a self-reflective process to determine which data points would provide the best indicators to understand progress towards the desired outcomes. Once these indicators were determined, each organization was able to understand the most critical pieces of information to collect and proceeded to establish a series of tools and systems through which staff were able to collect and catalogue the desired data. Each organization relentlessly monitored the collected data points to determine if they possessed the necessary information to inform their continuous improvement process, as well as to fulfill their required data commitments. While experience across the programs varied, a concerted effort to collect the relevant data was consistently made by all three organizations, despite the pressure oftentimes created by multiple and differing demands for data which result from a diversity of funding sources and the need to demonstrate effectiveness across numerous indicators to the public.

A Strong Organizational Commitment to Professional Development for all Staff related to Data Collection and Data Use

The leaders of the profiled organizations have been unfaltering in their commitment to organizational improvement and to build capacity throughout their organization for effective data collection and use. Their leadership, along with their transparency and clear, constant communication to staff has proven to be critical in the effort to help everyone understand how data is collected, entered, and then utilized to make organizational decisions. Each organization has devoted significant staff time and organizational resources not only to develop a comprehensive data system that meets their needs, but also to provide staff the necessary training to understand how and why these systems should be utilized. Through leadership and organizational commitment, each organization has created a thriving data culture focused on continuous improvement.

ISSUES TO CONSIDER

The three profiles highlight leading examples of how programs can work to build capacity to collect and use data for continuous improvement. Individual program examples are critical to help understand what works, yet also provide the opportunity to highlight important issues, both in implementation and in scalability. While the ultimate goal is for all youth-serving programs to collect and use data to drive decision making, in reality, there are numerous challenges in doing so, some related to practice and some to policy. These include financing, data sharing, and standardization of outcomes.

Financing

The financial investment for data system software, as well as the staff hours to build and continuously maintain the system is significant. Given the limits of budgets and general use dollars at most organizations, it is often difficult for programs to set aside sufficient funds to allow for a long-term investment in a data system with a customizable platform as well as a dedicated and trained data manager. Our review of the profiled programs revealed the need for a nimble platform able to be customized to the unique needs of each particular program (e.g. ability to capture a variety of different types of data including demographics, academic outcomes, and participation). While each program began with a homegrown system, currently each program uses Efforts to Outcomes, a data system developed by Social Solutions (described in each section). Given that many programs in the field have implemented this platform, the three profiled organizations reported that Social Solutions' knowledge of the field proved useful in the customization process, providing a cost-saving measure for programs without deep data knowledge.

In addition to investment in a customizable data platform, organizations must also support these systems with a well-educated staff able to fully engage with data collection and reporting protocols. This means professional development for any and all staff involved with data collection, costing time, and, as articulated by some interviewed at the included programs, creating a burden for front-line staff. In addition, staffing a dedicated data manager serves a critical role of creating and evolving data collection protocols, producing relevant data analysis, and serving as the "on-call support" as staff build their own capacity to use data. Each of the profiled programs had at least one dedicated staff member and were working towards building a department and/or embedding data-focused staff within many departments and decision-making teams.

We also note the potential cost of an external program evaluation, which all of the included programs have either perused, or are beginning to conduct in order to provide increased validity to their theory of change and model. While many organizations are limited by the capacity and expertise of their staff to perform empirical evaluations, an external evaluation can provide clear, objective measurement necessary to take the next step in improving program effectiveness. External evaluations are also valuable marketing tools and can help influence potential funders. Organizations that are unable to make this investment lose the benefit of having this marketing tool, adding an additional challenge in securing future investment.

Data Sharing

As demonstrated by the three profiles, programs typically work across a variety of different youth-serving systems at the local, state, and federal levels. Our research also revealed that working across multiple systems often presents challenges related to information sharing and reporting. The data sharing challenge exists both as a technological hurdle in the alignment and transfer of data, as well as a political battle fraught with privacy concerns and an unwillingness to work across system or agencies.

While technological advances have made data collection much easier and automated several analysis functions, many programs still face technical challenges in moving information across different systems. These challenges, such as matching records or standardization of inputs are particularly problematic across multiple systems (education, justice, and the workforce) as they often do not use the same identifier within each record. Through creative solutions, these programs are beginning to make some technological barriers disappear, opening more opportunities for collaboration.

Despite advances in the technological ability to share data, there are still challenges to sharing data at the leadership level. In particular, these issues manifest as both a lack appreciation for the value of data sharing as well as the desire to protect agency data, either in the name of privacy concerns, or out of fear the information will be used punitively or inappropriately. We believe these concerns are unfounded and have seen from leading examples that cross-agency data sharing can result in positive impacts on program improvement and system improvement. For example, Roca's efforts to share information with the Police Department have increased its ability to target high-risk male offenders and that partnership has been viewed as critical in decreasing youth crime in Chelsea. Educating leadership and decision makers is crucial to building a deeper understanding of the value of sharing data.

Standardization of Outcomes

The challenge of reporting various types of outcome information to different funding sources has been well documented. This issue has resulted in long-standing calls for standardizations of measures, particularly across often-combined federal funding streams serving the disconnected youth population. Yet as mentioned previously, it is critical for programs to limit their data collection to the points that are relevant to their desired outcomes. Ideally, programs are able to utilize this collected data to match the unique data request by individual funding sources.

While it may be possible to standardize the desired long-terms outcomes for the disconnected youth population (attainment of a secondary credential, entrance into postsecondary education or career pathway leading to a family-sustaining wage), we must be careful not to assume we can standardize the incremental, short-term outcomes or amount of time spent in the various program interventions. As shown across the three programs, information collected for short-term outcomes is quite varied, particularly when considering the different strategies each program employs. Since these short-term outcomes are determined by a combination of several factors, including the intervention strategy and youth risk level, any attempt to universally reconcile and streamline these indicators will be met with difficulty. Yet, considering a menu of different outcomes from which programs would report might provide the needed flexibility across program types and population needs.

CONCLUSION

We hope that the highlighted examples, lessons learned, and issues to consider have provided valuable insight and understanding into the complex issue of successful data collection and use. Our intent was not to write a “how-to” guide, but rather to catalogue the process of how programs evolve in their use of data, including both their successes and challenges in building and sustaining a data culture. While the three organizations primarily serve a disconnected youth population, we believe that this research has implications for all youth-serving programs.

Through their dedication to continuous improvement, the profiled organizations maintain a cyclical process of development and growth, resulting in more effective services and supports for the disconnected youth population. We look forward to their work, and will continue to document their progress as well as others emerging throughout the field.

American Youth Policy Forum

1836 Jefferson Place, NW, Washington, DC 20036