

Maura Bonanni, Achievement First
 Brad Gunton, New Visions for Public Schools
 Katherine Czehut, ROADS Charter High Schools

Problem Statement

Schools and districts today collect and store more data on their students and employees than ever before. As the education world scrambles to take advantage of these massive stockpiles of information, we step back to examine how storing and managing these data impact the questions that can be addressed and the basis on which decisions can be made.

Fellows



Maura Bonanni (AF)
 Director of Data Strategy

Achievement First, NY

Mission: Achievement First firmly believes that the achievement gap can and must be closed. Our schools relentlessly focus on developing the academic and character skills necessary for every student to succeed in college and life, regardless of socio-economic background.

About Us: Achievement First has grown into a network that includes 25 schools in five cities. In 1999, Amistad Academy opened with 84 fifth and sixth graders. Now, in the 2013-14 school year, Achievement First is serving 8,100 students in grades K to 12

Project Scope: We believe that the smart use of data will dramatically increase the effectiveness of our teachers and school leaders and that the **strategic use of systems** will amplify the impact of our people. We accomplish this by ensuring that AF has (1) accurate, timely, and insightful data to make strong decisions focused on the most important organizational outcomes; and (2) the infrastructure, systems (process and technology), and support in place to make us more effective and more efficient so that we can scale successfully.

Case Studies



Brad Gunton (AF)
 Deputy Director, Research and Organizational Learning

New Visions for Public Schools, NY

Mission: Radically disrupting the cycle of poverty in our city by redefining educational expectations and outcomes by improving student achievement and resilience.

About Us: New Visions for Public Schools serves 81 schools (75 district, 6 charter), 47,239 students, of whom 80% receive free lunch

Project Scope: We are organizing school and student data to **optimize student programming**. This requires combining diverse data sets, incorporating longitudinal and predictive data, and creating tools in a very limited time period. If successful, data-driven student programs could be an extremely valuable leverage point in keeping students on track for graduation and college readiness.



Katherine Czehut (DF)
 Director of Research & Evaluation

ROADS Charter High Schools, NY

Mission: The mission of ROADS, which stands for Reinventing Options for Adolescents Deserving Success, is to ensure that over-age, under-credited students graduate from high school thoroughly prepared to excel academically, professionally and personally.

About Us: In August 2012, ROADS opened two high schools, each serving 150 youth aged 15-17 in an NYC district with a high rate of child poverty. The ROADS network now consists of roughly 400 students and 83 full-time employees.

Project Scope: We are working to ensure that important **student data are collected at the school level**. This is a crucial first step for creating a culture that values data and for data-based decision making. In summer 2013, the Fellow turned to Achievement First to learn the process they take to accomplish this task, and sought buy-in from ROADS network and school-based leaders to bring this ongoing project to fruition in winter 2014.

Results and Impact

Achievement First

Research Question

How can we centralize and democratize our data to facilitate strong decision making across our organization?

Obstacles

- Data have been siloed, housed in disparate systems and platforms
- Reports were static so updating them was labor intensive
- The tools to work with data and the skills needed to ask questions of those data have remained in the hands of the data teams

Method

Centralize Data

- Combine data from source systems in a centralized data warehouse
- Improve data collection tools

Distribute Reports

- Migrate from static excel-based to live Tableau-based reporting
- Create centralized reporting portals to facilitate network-wide access to data

Train Teams

- Develop a curriculum and create knowledge management resources to train and support Data Heroes across the network in leveraging the warehouse and Tableau

Results

- Critical KPI reports on attendance, culture, and attrition have transitioned from being static monthly reports to **live Tableau reports**
- CIO teams have completed the **Data Hero program**, and a new cross-functional cohort is about to begin training as part of the second cohort
- Tableau server usage has exploded in the past 3 months – both in the number of reports available and the number of users accessing data

New Visions for Public Schools

Research Question

How can we help schools create data-based student schedules that maximize opportunities for students to graduate ready for college?

Obstacles

- Student transcripts in our network contain about 178,000 combinations of course codes, years and schools; each needs to be mapped to graduation requirements to understand student need
- Second semester schedules need to reflect results from first semester courses as well as January Regents results
- Programs are set in early February; any delay in assigning optimal schedules leads to lost instructional time

Method

Create and share a student-level data set that highlights each **student's programming gaps** according to initial student schedules and school-specific metrics. Work intensively with schools with large numbers of gaps to reprogram students for the Spring semester.

Student ID	Student Name	Cohort	Status	Credits Earned + Current Sched: Total	Credits Earned + Current Sched: Core ELA	Credits Earned + Current Sched: Core ELA	Credits Earned + Current Sched: Elective ELA	Credits Earned + Current Sched: Elective ELA	Credits Earned + Current Sched: Math	Credits Earned + Current Sched: Math	Credits Earned + Current Sched: Global	Credits Earned + Current Sched: Global	Credits Earned + Current Sched: U.S.	Credits Earned + Current Sched: U.S.	Subjects with Programming Gaps	
111111111	Student A	2016 A		26.9	34.56	3	4	0	0	3	4	4	4	1	2	
111111112	Student B	2016 A		27.32	34.98	3	4	0	0	3	4	4	4	1	2	
111111113	Student C	2016 A		19.74	27.4	3	4	0	0	2	3	4	4	1	2	Math, Total Science
111111114	Student D	2016 A		24.9	31.56	3	4	0	0	3	4	3	3	1	2	Global
111111115	Student E	2016 A		28.32	35.98	4	5	0	0	5	6	3	3	1	2	Global
111111116	Student F	2016 A		14.74	21.4	2	3	0	0	3	4	2	2	1	2	2 ELA (Core), Global
111111117	Student G	2016 A		28.9	36.56	3	4	0	0	4	5	4	4	1	2	
111111118	Student H	2016 A		27.32	34.98	3	4	0	0	3	4	4	4	1	2	

Results

Between Feb. 10th and Feb 18th, nearly 2,000 students received updated schedules that were more aligned to make them on track for graduation and college readiness.

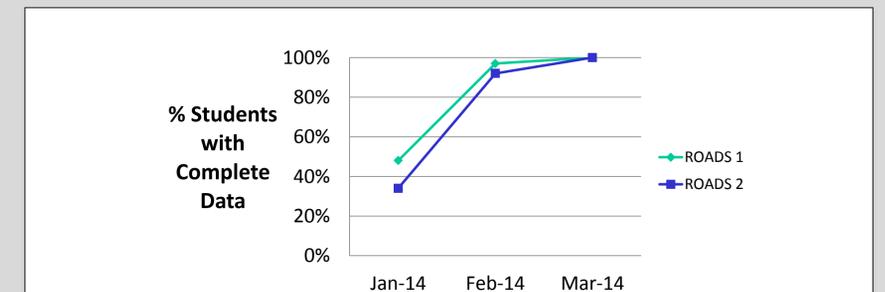
ROADS Charter High Schools

Research Question

How can we build capacity for data driven decision making?

Proposed Solution and Results

Create a process to ensure that important student data are being collected at the **school level**.



In just two months, ROADS went from having complete data on fewer than 50% of our students to having complete data on 100% of our students at both schools. Below are the lessons learned along the way and the next steps for the R&E team.

Lessons Learned

- Get in Front of Why:** We learned that the easiest way to get support from both network and school leadership was to explain why the process was being implemented, and to tailor the reasons to each audience
- Seek Inspiration from Partner Agencies:** We turned to Achievement First to figure out the process they use and then modified it to suit our needs
- Make it Easy:** A key takeaway we got from AF was to highlight the exact pieces of information that are missing from the system and build in ample time for school staff to find and enter these data

Next Steps

- Expand the Scope:** The current monthly process involves school ops staff and basic student information. We want to expand it to involve student support staff and include student engagement data
- Make Data Fun:** We are pushing to create visually appealing, interactive dashboards and to empower staff to use these dashboards to address questions
- Data for All:** The distribution of our reports is limited. We aim to establish a platform or procedure to make data reports or dashboards accessible to all staff