



District
Management
Group

DMGROUP IN ACTION

Massachusetts Puts Resource Allocation on the RADAR

by Sam Ribnick and Christopher Cleveland

Originally published in *District Management Journal*, v.22, Fall 2017

“RADAR does exactly what we all know we should be doing with our data if we weren’t stretched so thin; RADAR makes it possible with the time we have.”

DMGroup in Action

Massachusetts Puts Resource Allocation on the RADAR

Sam Ribnick and Christopher Cleveland



“School systems are data rich, but information poor” has become a common refrain and has proved to be a frustrating truism. Indeed, districts must track and submit mountains of data, but there is little time for anyone to sift through this trove of data gathered on students, staff, spending, and systems to produce actionable information. Further, there is often a disconnect between the needs of practitioners in school systems, researchers, and policy makers: for practitioners, targeted visual displays of key data may be most useful, whereas the other two groups require raw data for their analyses.

In 2015, the Massachusetts Department of Elementary and Secondary Education (DESE) began work to address this challenge and launched the RADAR (Resource Allocation District Action Reports) project to help districts make better use of their data specifically to manage resources more effectively. In January 2016,

after receiving a federal grant award for the work, DESE engaged District Management Group to collaborate on the project.

Through data visualization reports, benchmarking, and in-depth analysis, the RADAR project aims to provide practitioners with helpful information about a district’s use of its resources—people, money, and time. After a successful pilot of the RADAR tools in eight districts, the tool is now being shared statewide in hopes of transforming the way that district leaders across Massachusetts talk about, think about, and make decisions about resources.

As districts have started using the tools, it is clear that DESE has the makings of a hit. One school business official commented that RADAR “does exactly what we all know we should be doing with our data if we weren’t stretched so thin; RADAR makes it possible with the time we have.”

Background

Like many state education agencies, DESE has on its website summary data about schools and districts gathered from many different sources. DESE recognizes that these profiles provide useful, basic information for the public—giving parents, taxpayers, and other stakeholders information about the performance of districts and schools throughout the state; however, DESE has been acutely aware that this summary view is not sufficient to provide the insights that district leaders need to drive improvement.

As an initial step, DESE’s Office of Planning and Research, helmed by Chief Strategy and Research Officer Carrie Conaway, developed DARTs (District Analysis Review Tools), which enabled districts to view their own trends in achievement, growth, and other outcomes, and to conduct comparisons with other districts. The DARTs were well-received and became one of the most-used tools that DESE has created for districts.



Source: DESE RADAR

District Five-Year Trends

This collection of charts provides an overview of key indicators related to enrollment, performance, staffing, and budget over a five-year period. Each individual data point could previously be found on the DESE website, but by bringing these indicators together and showing trends, DESE hopes to enable districts to gain actionable insights.

Using RADAR to Investigate Special Education Programming

One high-performing suburban district in the 2016-17 pilot group found that RADAR provided powerful insights on how they could support students with disabilities more effectively. District leaders knew that they had a performance gap for students with disabilities (SWDs), but one RADAR chart helped illuminate a possible reason for the gap. While the district had embraced inclusion and 80% of classrooms had some students with disabilities, there were few special education teachers providing support in these classrooms (*Exhibit 1*). With 32% of special education teachers in self-contained classrooms, inclusion support was typically provided by paraprofessionals.

As a wealthy district, it was fortunate to have more staff than most districts, but comparing its staffing to that of similar districts confirmed that it had fewer special education teachers than most of the comparable districts, while it had the second-highest number of paraprofessionals (*Exhibit 2*).

District Fast Facts

Wealthy suburb outside of Boston
Enrollment: 2,500
Number of Schools: 5
Budget: \$45,000,000 or \$17,600 per pupil
Over 80% of students score proficient or advanced on state tests, with twice as many students in the highest category than the state average
Source: <http://profiles.doe.mass.edu/mcas/>
 N.B. Some numbers rounded to maintain anonymity.

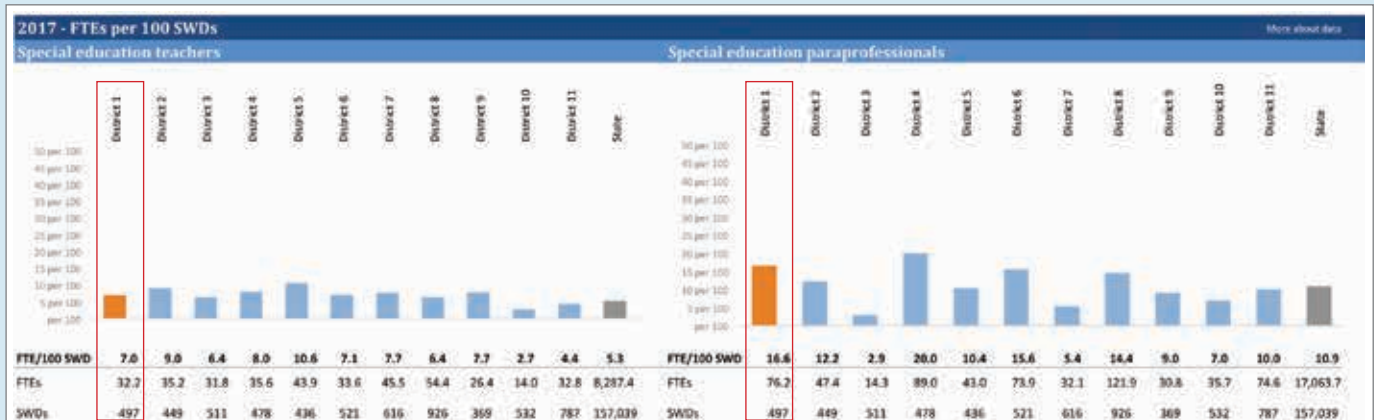
Exhibit 1 INCLUSION OF STUDENTS WITH DISABILITIES

| Select a grade span: | | All Grades | | | |
|-----------------------------------|-------------------------|---|-----------|-----------------------------------|-----|
| | | Core Academic Subjects <i>(ELA, Math, Science, History/Social Science)</i> | | | |
| Teacher FTEs | | General education teachers (FTEs) | | Special education teachers (FTEs) | |
| | | # | % | # | % |
| District 1 | | 203.8 | 125.3 62% | 31.3 | 15% |
| Classes with 2-30 students and... | No SWD (0%) | 14.9 | 12% | 0.0 | 0% |
| | SWD included (1-50%) | 100.0 | 80% | 0.6 | 2% |
| | Mostly SWD (51-100%) | 6.4 | 5% | 10.1 | 32% |
| Classes with 1 student | More than 30 students | 2.6 | 2% | 2.0 | 7% |
| | Supporting instruction* | 0.0 | 0% | 3.0 | 10% |
| | | 1.5 | 1% | 15.6 | 50% |

*FTE teachers with no assigned students

Source: DESE RADAR

Exhibit 2 SPECIAL EDUCATION STAFFING PER 100 STUDENTS WITH DISABILITIES (SWDS)



Source: DESE RADAR

The special education leadership recognized that this practice was not aligned to research showing that students benefit most from instruction from highly effective teachers rather than noncertified staff. Over the course of many collaborative meetings, the special education team in the district decided on a few key resource shifts that would enable a support model more aligned with research. Along with other changes, the district decided to repurpose the funds from three paraprofessional positions to hire a new special education teacher.

The RADAR charts and data thus provided the superintendent, academic leaders, special education leaders, and the business official insights on how practices could be improved; these charts and data will also prove useful in explaining the district's course of action to its school committee and active parent community.

This school year, the district will continue working with DESE and DMGroup and will perform an Academic Return on Investment analysis to measure the impact of the change to verify that it has the intended positive effects for students.

In the aftermath of the 2008 financial crisis, DESE recognized that resource management was going to be critical for districts to continue to drive improvements with fewer resources. Districts were indeed facing a new reality: rather than the 2% or 3% budget increases to which they had become accustomed, many districts were seeing increases of less than 1% or even flat or declining budgets. On top of this, demographic trends led many towns to experience declining student enrollment and corresponding budget pressures. DESE sought to provide districts with tools to thrive in a resource-scarce future. Within DESE’s Office of Planning and Research, a small team (Rob O’Donnell, Sarah Carleton, Melissa King, Ray Ward, and Lien Hoang) began to mock-up reports that sought to build on the popular format for DART while turning the focus to resource management. Conaway’s office won a federal Student Longitudinal Data Systems grant to fund this work, and the team was ready to press ahead from the initial mock-ups, which had already met with positive responses from staff in and outside of DESE. Conaway recognized that an outside partner with expertise in school finance and experience working with district teams on resource allocations would add valuable perspective and capacity to her team. After a competitive bid process, District Management Group was selected to work as part of the RADAR team.

Creating the Reports

The RADAR team sought feedback from the field on initial draft reports, and brainstormed further about the types of reports that would be most valuable by going to districts for individual meetings with superintendents and business officials. In addition, DMGroup expanded the list of potential reports based on its research into

best practices for using resources effectively. The final list of reports was broken into three topical areas: benchmarking, special education, and class size.

One school business official commented that RADAR “does exactly what we all know we should be doing with our data if we weren’t stretched so thin; RADAR makes it possible with the time we have.”

Like many state education agencies, DESE already had years’ worth of data collected from districts’ required data submissions. DESE had built up five valuable datasets from every district in the state over the past years: student information, student outcomes, staff information, courses with teachers and students, and end-of-year financial reports. The RADAR team set to work mining and analyzing all this data and successfully produced visualizations that made it easy for districts to see trends over time and to run comparisons to 10 similar districts. Though the numbers shown in the first package of RADAR reports had always been available on the department’s website in various places, the new charts transformed the data into insights about resource management.



Source: DESE RADAR

Per Pupil Spending by Category

This chart shows a district how its per pupil spending compares with that of 10 similar districts selected as a peer group. Though DESE has acknowledged the districts may code some expenses differently, many of the major items are directly comparable.

In addition, the RADAR team combined different datasets to create reports revealing information never before available. For example, one report analyzed how students on IEPs progressed through a district over multiple years, and showed the percentage of students in inclusion that eventually moved to more restrictive settings. The chart became even more striking when the RADAR team showed how districts compared: while one district may have only 5% of its inclusion students move to self-contained classrooms, another had nearly 20% make this shift. These differences spoke to important program decisions which also had major resource implications: more restrictive settings are costly for a district, so a district may want to investigate why its special education students are so much more likely to end up there than students in a similar district.

Piloting RADAR

After developing an initial set of reports, the RADAR team worked with DMGroup to organize a pilot group of eight districts to test the tools. At the kickoff conference, DESE presented the district teams—typically including the superintendent, business official, special education director, and in some cases, principals—with a framework for making strategic decisions about people, time, and money. DESE encouraged school districts to use their strategic plan to guide budgeting: first, determining what investments were needed to fully support the plan, and second, having the tough conversations about shifting resources to make that investment possible. Both discussions were grounded in data provided by RADAR reports.

Over the course of the school year, DESE and DMGroup liaisons worked closely with each district team to answer questions, guide them through the reports, and learn about the resource decisions that the teams were considering. When the districts reconvened in May, each team presented on how RADAR had prompted them

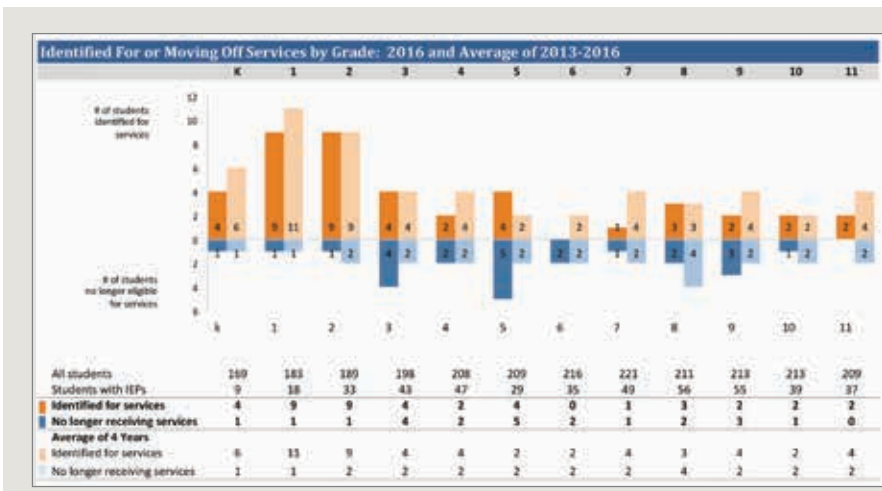
to look differently at their use of resources and what changes they were making to address their findings.

District team members shared that they felt the pilot had led to improvements in their budgeting process by increasing the connection between the budget and their strategic plan and by giving teams the tools to analyze resource and outcome data in tandem. Based on the pilot, RADAR was making a real difference in district budgeting.

Launching RADAR Statewide

Valuable feedback solicited from the pilot districts was used to revise the reports, and as of school year 2017-18, the RADAR reports have been made available to districts throughout the state. The RADAR team has an ambitious plan to promote the tools: asking districts to submit grant proposals for how they will make shifts in their budget based on the data in RADAR and other DESE tools. Districts with strong proposals are eligible to win grants of up to \$50,000, and will receive training and support along with the cohort of other winners. Beyond the grant winners, most of the districts that apply will join a second cohort with the chance to receive some training. By the end of this school year, Massachusetts may have as many as 30 districts receiving support from DESE to make strategic shifts in resource allocations. In addition, the team will offer workshops on using RADAR tools to other districts during the year.

In the years ahead, DESE expects to see RADAR incorporated into district budgeting and decision making. The reports will be updated each year, and DESE has ideas for new reports that could add insight on English Language Learners, transportation, and other areas not currently addressed. Recognizing that fiscal challenges for districts will likely continue, DESE is hoping RADAR will become an indispensable tool for Massachusetts' districts to make the most of limited resources. ♦



Students Identified For or Moving Off of Services

This chart combined five years of data for an analysis never before available to districts. The chart shows how many students move on and off special education services at each grade level, with a similar set of charts for cross-district comparisons. The information allows special education leaders to recognize and respond to unusual levels that may indicate a need to evaluate identification practices for special education.

Source: DESE RADAR