STRATEGIC DATA PROJECT
5TH ANNIVERSARY

National Center for Teacher Effectiveness

BEYOND THE NUMBERS CONVENING 2014
Breakout Session Summary
Dashboards to Move Beyond Big Data

The data collected by education agencies to better understand student achievement is growing rapidly and becoming highly complex. Data systems should be accessible to their audiences and should provide insights into areas well aligned with real educational needs. This session focuses on the restructuring of data collection and analysis systems so that staff can utilize relevant data to implement solutions aimed at improving student outcomes.

SDP Fellow Jason Becker of Providence Public Schools opened the session with some introductory thoughts about dashboards—a seemingly "old" concept—and their relationship to the new movement toward "big data." "Data is big and getting larger and more complex all the time," Becker noted. "Our data volumes often grow faster than the innovation cycle of machines in education; couple this with the fact that lots of data do not talk well with other data" and we have a real challenge, he added. Often, dashboards create tensions between the audience's needs and more traditional roles. For Becker, there is a difference between "what we should expect analysts to do with data *insights* versus more traditional uses of data that are a part of analysts' daily jobs." Successful data use via dashboards often depend on where someone falls on that continuum. If, as Becker notes, the ultimate goal of a dashboard is "to make someone take an action," we should consider the balance of "static" versus "non-static" measures produced and displayed on data dashboards.

Alex Bowers, **associate professor of education leadership at Teachers College, Columbia University, and SDP faculty advisor,** continued to push on the topic of "insightful" data analysis and use by discussing the importance of "big analyses." Bowers suggests that "education needs more 'data scientists'—people who can talk to humans and machines" about data. Additionally, Bowers believes that "data needs will differ depending on the consumer." He offered this tool for understanding the types of information analysts should share with various stakeholders: "Picture a Venn diagram with a circle representing superintendents, principals, and teachers; each group overlaps with other groups, but may not overlap much with both other groups. Designing data systems depends on lots of iterating and redesigning based on how people in the field are actually using the data."

Dave Stewart, founder and CEO at Tembo, has led work in various districts, including the New York City Department of Education and the School District of Philadelphia, to develop robust data reports and dashboards that empower stakeholders with key information. Stewart has observed that when designing school report cards "parents [should have the voice] to say what information they value instead of having access to only one data point." Having parents engaged in the conversations to ensure that we produce key information on school climate, student achievement, and other important metrics will contribute to more savvy education data demand and consumption. This in turn, will improve the quality of data analysis performed by education agencies.

Lastly, **Hai Huynh, strategic data advisor at the Colorado Department of Education** discussed the need for building data analysis capacity at the state-level. Rather than relying on a single analyst for a department, Huynh is working to help build capacity across various state-level staff. "By understanding what skills people have and then working to bridge the skill gaps" Huynh hopes to better understand workloads and identify opportunities to improve efficiencies.