

For a text version of this document please visit:
<https://maec.org/resource/educators-use-data-find-solutions-improve-equity/>



5272 River Road, Suite 340
Bethesda, MD 20816

301-657-7741
www.maec.org

EXPLORING EQUITY ISSUES: Educators Use Data and Find Solutions to Improve Equity

September 2018

Susan Villani

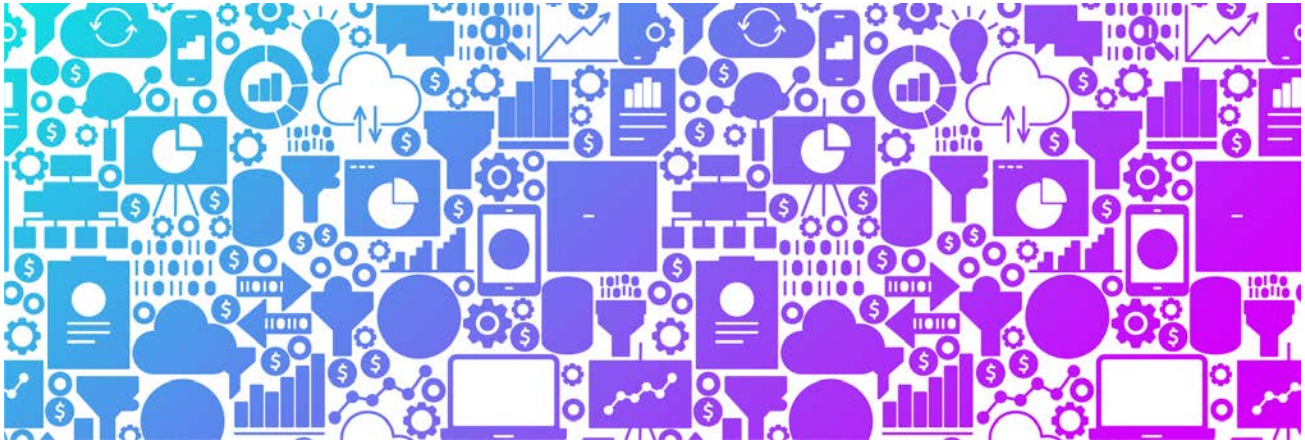
Disclaimer

MAEC is committed to the sharing of information regarding issues of equity in education. The contents of this paper were developed under a grant from the U.S. Department of Education. However, these contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the federal government.



EXPLORING EQUITY ISSUES:

Educators Use Data and Find Solutions to Improve Equity



Schools and districts continue to grapple with problems related to effectively addressing equity. For example, which students have access to rigorous and advanced courses? Which students are subject to harsh discipline policies and long-term suspensions? Which students are taught by the most experienced and highly qualified teachers? Are the financial and human resources distributed equitably within the school district? Education leaders that collect and use data to address these questions related to equity identify the root causes of their problems, make better decisions about what to do, and are more likely to implement the changes needed.

Leaders also need to examine how school and district policies and practices may limit access and opportunity for some students, particularly students of color and those living in poverty.

Susan Mundry, Senior Program Director at WestEd and an author of the *Data Coach's Guide to Improving Learning for All Students*, observes that "when educators apply an equity lens to analyze data on student performance and experiences, inequities that were not obvious come into much sharper focus. For example, when educators look at student absenteeism through an equity lens, they begin to ask who is chronically absent and probe into what

is keeping these children from attending school. They seek to understand if children have transportation challenges, are being bullied, need academic interventions or other supports. This approach encourages educators to own the problem and seek real solutions. In our work throughout the U.S., we have found that when educators and families understand and address the policies and practices that create inequities, they are able to significantly improve the students' experiences in schools."

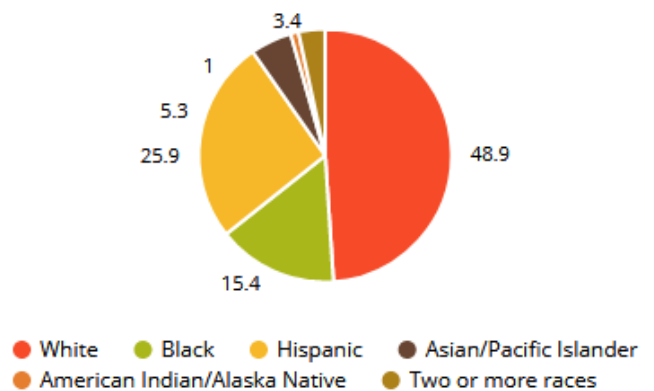
Data analysis can lead to revisions in district policies and changes in school practices. Dr. Rhonda Jones is Director of Pupil Personnel at Rochester City Public Schools in upstate New York. She reflected on how their district responded to data on student suspensions. "As the district delved into its data, the statistics on student suspensions revealed the existence of disproportionality, which prompted the creation of the Solutions to Suspension Task Force by the administration. The Solutions to Suspensions Task Force responded to the issue of disproportionality with the complete revision of the Code of Student Conduct based on positive behavior, progressive discipline and restorative practices."

Many districts collect a great deal of data on student achievement and other

aspects of students' experiences in school. However, using the data effectively can be difficult and educators often need protocols to help them make good use of data. What districts need are data inquiry teams that are adept at analyzing their data through an equity lens to find out how well their district and schools are providing equitable opportunity for all students.

In 2015, students from ethnic, language, and racial minority groups comprised the majority of the public-school students in the elementary and secondary schools in the United States, as follows (Snyder, 2018):

Race/Ethnicity Percentages of Students in U.S. Public Elementary and Secondary Schools, 2015



The diversity of students in today's public schools reflects our growing diversity as a country. Ensuring that all

students gain the knowledge and skills to be successful is a mission of quality public schools.

Among children under 18 years in the U.S., 43 percent live in low-income families and, of those, 21 percent, approximately one in five, live in a poor family. While many White students are affected by poverty, Black, American Indian, and Latino/a children are disproportionately low-income and poor (Jian, Granja, and Koball, 2017). The success rate of low-income students in science, technology, engineering, and mathematics disciplines is much lower than that of students who do not come from underrepresented backgrounds (Doerschuk, et al. , 2016). Children from low-SES families enter high school with average literacy skills five years behind those of high-income students (Reardon, Greenberg, Kalogrides, Shores, & Valentino, 2013).

Many public-school students need special programs to scaffold their learning. In 2016, 13 percent of public school students, or 6.6 million, received special education services (NCES, 2018, April). In 2017, the average mathematics score for 4th-grade EL students (217) was 26 points lower than the average score for their non-EL peers (243) (NCES, 2018, May). In cities, EL students made up an average

of 14.2 percent of total public-school enrollment. Latino/a students made up the majority of this group (McFarland, et al., 2017).

Ensuring that this range of students has fair and equitable access to high-level teaching and learning across the United States is a complex, challenging charge that falls almost exclusively on our public schools. Serving the needs of all students is not a one-size-fits-all approach. Students' circumstances and needs vary widely. School staff needs the requisite understanding of the information and the resources needed to be able to provide students with the experiences and support necessary for success. Practitioners need useful protocols and strategies to routinely investigate how all children are being supported to thrive and achieve success in their schools.

Responding to this need, the Center for Education Equity (CEE) at MAEC developed and is piloting *A Data Inquiry Guide for Exploring Equity Issues and Solutions* to help districts identify potential inequities or persistent equity problems that need to be addressed in a more comprehensive way. The guide helps teachers and administrators use data to objectively identify and address equity issues. Educators can also use it to engage students, families, the

community, and others who want to make positive changes in schools to increase equity. The Center for Public Education proposes that school leaders who want to make sure their schools are equitable should look first at their data to explore critical questions about student and school performance, access to high level curriculum, supports for struggling students, and discipline and suspension rates for different student groups (Barth, 2016). Many educators routinely examine achievement data to know how students performed on achievement tests. Data inquiry for equity goes beyond that by disaggregating data by sub-group to reveal which of our students are thriving and which need more support.

The educators on the data teams collectively examine, discuss, and interpret the information so that it is actionable. For example, some teams will gain new understandings by analyzing students' achievement outcomes alongside disciplinary outcomes because disciplinary incidents often arise when students and teachers are having difficult interactions over academics.

Research shows that school-wide team inquiry practices are associated with improved student learning outcomes. Gallimore and colleagues found that

schools using inquiry-focused protocols significantly increased student achievement and shifted their attributions of improved student performance from external sources to their own instruction. The findings were related to the teams sustaining their attention on a given issue long enough to develop and test solutions (Gallimore, Ermeling, Saunders, and Goldenberg, 2009). Building on this research, the Equity Data Inquiry Cycle presented in *A Data Inquiry Guide for Exploring Equity Issues and Solutions* leads educators through the following steps as they use data to raise questions about equity:

1. Identify and investigate the problem regarding student experiences and/or outcomes.
2. Identify questions about the problem.
3. Identify multiple sources of data to answer the questions and learn how school conditions may influence the problem.
4. Use the Data-Driven Dialogue process to generate the priority issues for the equity goals.
5. Explore resources, research, and evidence-based practices to inform the creation of SMART goals to address one of the root causes.

6. Create a plan and engage in a cycle of improvement as the plan is implemented.
7. Review progress on addressing the SMART goals and solving the original problem.
8. Celebrate success.
9. Restart the cycle.

This Data Inquiry Cycle helps educators and other stakeholders uncover inequities in their schools that they can address. Often such inequities are subtle and may be invisible until educators and other stakeholders examine and discuss data to reveal different perspectives on how students are being served.

The Data Inquiry Cycle is a structured and supported routine to slow things down so that an equity issue that keeps coming up can be investigated, considered, and then addressed more systematically. When educators function as a team, engaging in a thoughtful data inquiry cycle, they will be able to understand more than what is evident on the surface. The team asks questions to understand what underlying assumptions or beliefs are driving actions, decision, policies, etc., and collects more data to answer those questions. The team avoids jumping to quick conclusions or launching

impulsively into action. It looks for root causes of problems by exploring why the problems are happening (i.e., by using tools for root cause analysis included in this guide) to generate deeper insights about the possible causes of the problem.

A key question inquiry teams ask is: “What do we as a school need to know and be able to do to address the equity issue?” The team is careful to only identify root causes that the school or district has the ability to act on and the influence to change. For example, causes of discipline problems that result in disproportionate number of Black males being suspended and that the school has control to change may include: the school’s zero-tolerance policy, the code of conduct, and teacher training in classroom management. These are “actionable” issues the school can examine to address disparities in school suspensions.

Once the team identifies a reasonable set of root causes, it investigates the research on possible interventions and best practices on how it will address the problem. The problems are often complicated, so the team needs to prioritize specific areas to address first. The team will establish SMART goals: goals that are specific, measurable, attainable, relevant, and time-bound.

Then the team develops implementation plans for each SMART goal and monitors frequently to determine whether the interventions it chose to implement are addressing the root cause(s) of the problem. The team makes necessary adjustments and sustains focus on bringing about the desired changes in outcomes of students. The Data Inquiry Cycle is an iterative process, so the inquiry team keeps engaging in the cycle, either to address other root causes that it had initially identified, or to identify and address new issues.

This guide draws from several data-inquiry models including Collaborative Inquiry (Love, 2009) and Data Wise (Boudet, City, & Murnane, 2013). Members of a team may have different levels of experience with a data inquiry cycle. This guide focuses on each step in the Data Inquiry Cycle to help the team take time to address critical steps, enhance progress toward deeper understanding, and find solutions that will achieve results. The guide includes worksheets for teams to use as they try each step of the Data Inquiry Cycle. An example is included below.

Dr. Dawn Bentley, Assistant Superintendent for Student Services, in the Acton-Boxborough Regional School District has worked with CEE to address issues they initially identified. She

wrote:

“We are thrilled that as a result of our data inquiry cycle with both our district-wide Data Inquiry Team and our School Leadership Team, we have added the following goals to our long-range strategic plan:

*By the 2021-22 school year, we will increase the diversity in our certified workforce by 20% by reviewing and adjusting our hiring practices.

*Develop greater capacity and consistency among and between evaluators to focus on the professional evaluation rubric Standard 2, Teaching All Students by providing additional professional learning in the calibration of our evaluation tool.

*Through an equity lens, the Data Inquiry Team will review existing data/practices in each building around ways that families are asked to financially contribute to their child’s school (i.e. ‘suggested’ and ‘required’ school supplies, annual field trips, etc.) to maximize access for all students and make recommendations through the development of SMART goals.

*The district-wide Data Inquiry Team will review data (i.e. stakeholder surveys, implementation practices, etc.) to inform continued implementation of the HW policy and consider HW through

an equity lens.”

Schools or districts interested in using the pilot version of this guide may contact Susan Villani, Center for Education Equity, at 781-481-1112 or svillani@wested.org for more information.

REFERENCES

- Barth, P. (2016). Educational equity: What does it mean? How do we know when we reach it? The Center for Public Education. Alexandria, VA: National School Boards Association.
- Boudet, K.P. City, E.A. & Murnane, R.J. (Eds). (2013). Data wise: A step-by-step guide to using assessment results to improve teaching and learning, revised and expanded edition. Cambridge, MA: Harvard Education Press.
- Doerschuk, P., Bahrim, C., Daniel, J., Kruger, J., Mann, J., & Martin, C. (2016). Closing the Gaps and Filling the STEM Pipeline: A Multidisciplinary Approach. *Journal of Science Education and Technology*, 25(4), 682-695. Retrieved from <https://doi.org/10.1007/s10956-016-9622-8>
- Gallimore, R., Ermeling, B., Saunders, W., & Goldenberg, C. (2009). Moving the Learning of Teaching Closer to Practice: Teacher Education Implications of School-Based Inquiry Teams. *The Elementary School Journal*, 109(5), 537-553. doi:10.1086/597001
- Jiang, Y., Granja, M.R., & Koball, H. (2017). Basic Facts about Low-Income Children: Children under 18 Years, 2015. New York: National Center for Children in Poverty, Columbia University Mailman School of Public Health
- Love, N. (2009) *Using Data to Improve Learning for All: A Collaborative Inquiry Approach*. Thousand Oaks, CA: Sage
- McFarland, J., Hussar, B., de Brey, C., Snyder, T., Wang, X., Wilkinson-Flicker, S., Gebrekristos, S., Zhang, J., Rathbun, A., Barmer, A., Bullock Mann, F., and Hinz, S. (2017). *The Condition of Education 2017 (NCES 2017- 144)*. U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2017144>.
- National Center for Education Statistics (2018, May). *The Condition of Education - Preprimary, Elementary, and Secondary Education – Assessments - Mathematics Performance*. Retrieved from https://nces.ed.gov/programs/coe/indicator_cnc.asp
- National Center for Education Statistics (2018, April). *The Condition of Education - Preprimary, Elementary, and Secondary Education – Children and Youth With Disabilities .* Retrieved from https://nces.ed.gov/programs/coe/indicator_cgg.asp
- Reardon, S. F., Greenberg, E. H., Kalogrides, D., Shores, K. A., & Valentino, R. A. (2013). *Left Behind? The Effect of No Child Left Behind on Academic Achievement Gaps*. Retrieved from <http://cepa.stanford.edu/content/left-behind-effect-no-child-left-behind-academic->

Educators Use Data and Find Solutions to Improve Equity

achievement-gaps

Snyder, T.D. (2018). Mobile Digest of Education Statistics, 2017 (NCES 2018- 138). U.S. Department of Education. Washington, DC. National Center for Education Statistics