Central Office Foci and Principal Data Use: A Comparative Study of Equity-Focused Practice in Six Districts

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Abstract: In this comparative study, I examine principal data use in two sets of districts. One set of three districts has a district-wide focus on using data to improve instruction, and the other set, also with three districts, has a district-wide focus on analyzing disaggregated data by student demographic groups. Data sources include interviews with principals in each set (18 from data-focused districts, and 9 from disaggregation-focused districts), and analysis focuses on ways that they talk about analyzing data in relation to district expectations and equity. Findings showed that each set of principals shared a different approach to data, either performance-focused or demographic-focused, suggesting the central role of the district in guiding how data are used at the building level. I conclude with implications for practice, policy, and research.
Keywords: data use; principal; educational leadership; equity

Focos de la oficina central y uso de datos principales: Un estudio comparativo de las prácticas de equidad en seis distritos
Resumen: En este estudio comparativo, examino el uso principal de datos en dos conjuntos de distritos. Un grupo de tres distritos tiene un enfoque de todo el distrito en el

uso de datos para mejorar la instrucción, y el otro grupo, también con tres distritos, tiene un enfoque de todo el distrito en analizar datos desglosados por grupos demográficos de estudiantes. Las fuentes de datos incluyen entrevistas con los directores de cada grupo (18 de distritos basados en datos y 9 de distritos basados en desglose) y el análisis se centra en las formas en que hablan sobre el análisis de datos en relación con las expectativas y la equidad del distrito. Los hallazgos mostraron que cada grupo de directores compartió un enfoque diferente a los datos, ya sea enfocado en el desempeño o enfocado en la demografía, lo que sugiere el papel central del distrito en guiar cómo se utilizan los datos a nivel de edificio. Concluyo con implicaciones para la práctica, la política y la investigación.
Palabras-clave: uso de datos; principal; liderazgo educacional; capital

Focos do escritório central e uso de dados principais: Um estudo comparativo da prática de equidade em seis distritos
Resumo: Neste estudo comparativo, examino o uso de dados principais em dois conjuntos de distritos. Um conjunto de três distritos enfoca todo o distrito no uso de dados para melhorar a instrução, e o outro conjunto, também com três distritos, enfoca todo o distrito na análise de dados desagregados por grupos demográficos de alunos. As fontes de dados incluem entrevistas com diretores em cada conjunto (18 de distritos baseados em dados e 9 de distritos baseados em desagregação), e a análise se concentra nas maneiras como eles falam sobre a análise de dados em relação às expectativas e equidade do distrito. Os resultados mostraram que cada conjunto de diretores compartilhava uma abordagem diferente para os dados, seja com foco no desempenho ou com foco demográfico, sugerindo o papel central do distrito na orientação de como os dados são usados no nível do edifício. Concluo com implicações para a prática, política e pesquisa.
Palavras-chave: uso de dados; diretor; Liderança educacional; equidade

Central Office Foci and Principal Data Use: A Comparative Study of Equity-Focused Practice in Six Districts

Central office administration has the potential to play an influential role in the ways that principals enact leadership (Augustine et al., 2009; Honig, 2012; Knapp et al., 2010; Roegman, Perkins-Williams et al., 2018). Central office administrators, for example, may offer structured opportunities for professional learning based on the district's strategic plan or mission (Darling-Hammond et al., 2007; Duncan et al., 2011; Means et al., 2010). They also may provide clear and explicit expectations for principals around a range of leadership tasks and practices (Grissom & Harrington, 2010). However, research has found that this potential is not always fulfilled, as principals report learning more from their on-the-job experiences or informal conversations with colleagues than district-offered professional development (Davis et al., 2013; Means et al., 2010) When central office administrators hold expectations for principals, but provide little direct training in how to meet these expectations, principals are left on their own to figure out what to do (Hubbard et al., 2006).

Data use is one such area of principal leadership that both has become a regular expectation for principals (Fusarelli, 2004; Lachat & Smith, 2005; Petersen & Young, 2004), and that also often does not entail clear direction in terms of how principals should actually be using data to make decisions (Davis et al., 2013; Grissom & Harrington, 2010). In some districts, principals may be expected to use data to drive instruction, to use data to analyze disciplinary actions, or to use data to

advance or equity, while other districts may require principals to use data as an accountability measure focused almost entirely on meeting state mandates (Halverson et al., 2007).

While principals bring their own prior experience and knowledge to data use, often based on their previous positions (Roegman, Perkins-Williams, et al., 2018), many reported limited proficiency, often noting that data use was a central weakness of their preparation (Creighton, 2001; Duncan et al., 2011; Nelson et al., 2008). The range of principal proficiency is especially concerning given the current need for equity-focused data practices that enable principals to identify and address systemic inequities in their schools (Codding & Rothman, 1999; Lachat & Smith, 2005; Skrla et al., 2004). It is important, however, to see principals not just as individual leaders in their buildings, but as individuals within specific contexts whose practice occurs within schools, communities, and districts (Coburn & Turner, 2011; Senge, 1997; Scott, 2001; Spillane et al., 2002). As such, principal practice needs to be considered within the contexts in which they work (Ishimaru & Galloway, 2014). The role of context is especially important to consider in examining equity-focused principal practice, as different districts face different challenges related to providing all students with an equitable education (Roegman, 2017; Roegman, Samarapungavan, et al., 2018).

Equity is defined in educational leadership in multiple ways (e.g., Artiles, 2011; Bulkley, 2013; Levin, 2010; Roegman & Hatch, 2015). For the purposes of this study, I draw on Gutiérrez's (2012) four dimensions of equity as a way to be expansive in thinking about what equity means and how equity might be understood differently in different contexts by different individuals. These four dimensions include access (e.g., enrollment in honors classes); achievement (e.g., test scores and graduation rates); identity (e.g., how students see themselves as learners and how they see themselves within the curriculum); and power (e.g., the need for systemic social transformation).

Purpose and Research Questions

The purpose of this comparative study is to explore principals' equity-focused data use practice in districts with two different central office emphasis on equity and data use. In one set of three districts, central office administrators have been focused on implementing or improving data-based decision-practices at the building level. Two of the three districts had reached out to a university for support in helping their principals and teachers develop their data use skills, and the third was invited to join because it shared a similar focus. In the second set of three districts, central office administrators have been addressing systemic inequities in access and achievement, two of the four dimensions of equity identified by Gutiérrez (2012). Superintendents of the three districts in the second set were all participants in professional development related to systems-level equity-focused leadership.

Research questions include: (1) What practices (if any) do principals in each set of districts use to analyze data through an equity lens? (2) How do central office expectations support or constrain different types of equity-focused data practices? It is not possible to claim causality in this type of study; however, if differences do exist in equity-focused data practices between the two sets of districts, a pattern of empirical association presents the opportunity for further study in this area.

The Role of Central Office in Principal Practice

Data use is a central part of the work of both central office and site-based administrators. One key way that central office administrators support principals and teachers around data is through sharing data related to district and state assessments (Gallagher et al., 2008; Kerr et al., 2006; O'Day, 2002; Wayman et al., 2007; Wayman & Stringfield 2006). When central office administrators

share data, they may include preliminary analyses of assessment data that ideally would support site-based educators in acting on the data (Kerr et al., 2006). Central office administrators may support site-based data use by providing specific time and resources for educators to engage with data, such as paid planning meetings or data-focused retreats (Halverson et al., 2007). Central office administrators can positively support principals' and teachers' sensemaking around data through the messages they send about the value of data in instruction (Honig & Venkateswaran, 2012; Massell, 2001; Supovitz, 2006). A final way that central office administrators might support principal data use is through modeling—analyzing data with principals and talking through how they make sense of the data and use data to spur action (Jimerson, 2014).

Despite the many ways that central office administrators can support principal data use, studies have found that principals do not always see central office as a strong support for their regular use of data to inform instruction (Cho & Wayman, 2014; Daly & Finnigan, 2010; O'Day, 2002). Educators have different understandings of the meaning of data and different levels of data literacy (Wayman et al., 2012), leading to differential professional development needs and supports. Principals report that learning on the job, in their buildings with their site-based colleagues, was a common way for them to develop their data literacy, and not from central office guidance (Grissom & Harrington, 2010; Jimerson, 2014; Roegman, Perkins-Williams, et al., 2018).

This research suggests the need to better understand how central office administrators influence principal data practice—especially in regards to advancing equity (Honig & Venkateswaran, 2012). While much of the literature on data use focuses on using data to improve instruction in a more general sense, there is a growing conversation about using data to both improve instruction and advance equity, whether administrators are focused on equity in terms of access to different learning opportunities, equity in terms of student outcomes such as test scores or graduation rates, and more broader understandings of equity in regard to students' daily classroom experiences (e.g. Datnow & Park, 2018; Pollack & Zirkel, 2013). To examine principal data use from an equity lens, I now discuss Ishimaru and Galloway's (2014) framework for equitable leadership practice as way to bring attention and intentionality to equity-focused data use.

Conceptual Framework: Drivers of Equitable Leadership Practice

Ishimaru and Galloway (2014) identified three drivers of equitable leadership practice: framing disparities and action; construction and enactment of leadership; and inquiry culture. In outlining these three drivers, Ishimaru and Galloway forefront a vision of leadership as situated—principals engage in data use practices within specific districts and policy contexts.

In terms of framing disparities and action, they look to ways that school leaders understand what the problem is and how it should be addressed. Framing is a critical aspect of leadership, as attention to framing involves how a leader might mobilize others in their organization (Benford & Snow, 2000; Goffman, 1974). For example, when school leaders use language such as "achievement gaps" to characterize disparities in educational outcomes, they risk perpetuating deficit beliefs about underperforming groups and students (Darling-Hammond, 2015; Ladson-Billings, 2006; Quinn et al., 2019). They also risk a narrow focus on achievement data (Datnow & Park, 2018), instead of a more expansive assessment of students' educational experiences and school policies and practices. Ishimaru and Galloway (2014) argue that exemplary equity-focused practice involves framing disparities in light of school policy and practice; when schools develop action plans, they must do so in ways that are inclusive of communities, not just school personnel. In this study, I look to ways that principals interpret central office messages related to data use and equity, as well as how they frame their own data use practices within the larger context of their work.

Construction and enactment of leadership, according to Ishimaru and Galloway (2014), entails a consideration of how different individuals are involved in the leadership process and how decisions are made. In this sense, leadership is not solely the formal head of a school or district, but leadership is distributed throughout a school and community (Sergiovanni, 2006; Spillane & Diamond, 2007). Teachers, students, parents, and community members develop the capacity to engage meaningfully in the work of equity, and they all come together to develop a shared vision of where the school needs to go. School leaders hold the responsibility for creating spaces and opportunities for different stakeholders to meet and work together, while attending to potential power dynamics between and amongst stakeholder groups (Wasonga, 2009). Equity-focused leaders work with community members to identify areas of concern and prioritize how they will be addressed (DeMatthews et al., 2016). In this study, I look to ways that principals engage in data use practices with teachers, peers, supervisors, or other stakeholders, and whether, if at all, they work with these stakeholders to develop equity-focused actions in response to data analyses.

Finally, Ishimaru and Galloway (2014) see an inquiry culture as the third drive of equity-focused leadership, which involves leaders creating an environment in which inquiry and continuous improvement are encouraged and valued. In these cultures, leaders and teachers regularly collect and analyze data to identify inequities, and use these data to develop plans to address them (Bensimon, 2005; Scheurich & Skrla, 2003). Inquiry cycles are ongoing, and all members of the school community are engaged in this work; data may be qualitative or quantitative and are drawn from various sources, and leaders consider how policies and practices are supporting progress toward the school's goals (Ishimaru & Galloway, 2014). School and district data inquiry is collective and social, as different individuals collect and interpret data from various perspectives (Coburn & Turner, 2001). Principals can support data use at their schools through the development and management of organizational routines such as professional learning communities and the role of site-based coaches (Marsh et al., 2015; Spillane et al., 2002). In this study, I look to ways that principals see themselves as working within a district inquiry culture and see themselves as leading a site-based inquiry culture.

Ishimaru and Galloway's (2014) framework is a logical choice to guide this study because its three drivers come together to serve as a foundation for equity-focused leadership. They highlight the importance of how leaders use equity in understanding what it means to create school cultures that advance equity for all students. In this study, their framework supports and strengthens my analysis of central office supports for equity-focused data use; their framework offers a way to identify where a district is in advancing equity and helps to situate principals, the focus of data collection for this study, within the larger context of the districts in which they work.

Methods

This study is a secondary analysis of qualitative data (Heaton, 2008), comparing data that were collected from two different studies of educational leadership and practice during the 2015-2016 school year. In the process of data collection and preliminary data analysis of both studies, I identified some differences in how principals in each set were talking about data use. I designed this study to explicitly and systematically compare the two data sets to explore their equity-focused data use practices. From my knowledge of the districts involved in each original study, I knew that each had different expectations and foci related to district-wide work. In this study, I examine more closely how principals are understanding and acting on central office expectations related to data use and equity.

Research Contexts

This current study draws on data from two different studies in which I have been involved. I now briefly describe each study. I then discuss the district contexts for the six participating districts. In discussing the two studies and the six district contexts, it is clear that the districts are different in terms of their foci, as well as different in terms of their size, location, and demographics, amongst other differences. As the purpose of this study is to explore data practices in districts with different central office expectations, this range of district type is beneficial.

Study A

The first study was an observational study of data literacy among secondary mathematics and science teachers and administrators around their implementation of data-driven decision-making in three different school systems. The three districts were purposefully selected for Study A because of their interest in data use; all three superintendents were interested in collaborating with the research team around supporting teacher and administrator data literacy. Two superintendents, from the same midwestern state, approached one of my colleagues for support in secondary teachers' data use, and their early conversations led to a larger study of data use at the secondary level, including a survey analysis of teacher beliefs and practices. I learned of a third district that had a similar interest in developing teachers' data literacy, and invited the superintendent to participate in the study.

Study A included interviews and surveys with various stakeholders, including teachers and administrators. All secondary principals were invited to participate in Study A from two of the districts, Adeline and Bowman, and at the request of the superintendent, all principals were invited to participate from Cannington. In return for participating in the research, the original Study A research team individually shared descriptive results from the surveys and interviews with leadership teams from all three districts.

Data for this study include one-on-one interviews with all 18 principals from these three districts who agreed to be interviewed. Interviews focused on the principals' own data use practices, how they supported teachers' data use, and their perceptions of central office expectations and requirements related to data use. There were also two questions related to equity: How do you analyze data from an equity lens? In what ways do you disaggregate data? Analysis of these data on their own can be found in Roegman, Samarapungavan, Maeda, and Johns (2018). Principals from this study are referred to as Sample A.

Study B

The second study is a longitudinal study of professional development network for superintendents in a northeast state. I have been working with this network for over ten years. Over 40 superintendents have participated in this organization over time, invited by the facilitator, a former superintendent, or their colleagues to join, and expected to commit to equity-focused practice. As part of their involvement in the network, superintendents identify and addres inequities in their school systems, though there is no requirement for specific definitions of equity or specific types of school reforms. Data collection for Study B involves annual interviews with superintendents and members of their leadership team who participated in various network activities.

The original research team of Study B had identified a smaller number of districts within the network for more in-depth data collection. Thee districts were identified because their superintendents were long-term and active members of the network, and the superintendents were willing and interested in having researchers interview principals. Data collection for this subset of

network superintendents included annual interview data from principals and other instructional staff, as well as surveys of teachers.

Data for this study include one-on-one interviews with nine principals from three districts whose superintendents agreed to participate in principal data collection. Interviews focused on the work that the superintendent was leading related to their participation in the network, principals' perspective on new initiatives proposed by the superintendent, and principals' understandings of the challenges their district faced related to equity. I also added questions about data use: How do you use data in your school? How do you analyze data from an equity lens? Principals from this study are referred to as Sample B.

Districts and Participants

Six different school districts participated in this study, with varying characteristics (see Table 1). The three districts from Sample A are small to mid-sized Midwestern districts. Adeline School District is a small rural district with 2,200 students. The district has one primary, one intermediate, one middle, and one high school. The student population is over 90% white and almost 5% Hispanic; and about 25% of students receive free- or reduced-price lunch. The district has a history of high academic performance, maintaining a higher passing rate of state mandated test than the state average for the last eight years. The rate was about 65% in 2014-2015 (the year new standards were introduced). Additionally, the district has implemented evidence-based decision making across schools since the 1990s.

Bowman Public Schools is a rural district with 6,700 students. It has eight elementary schools, two middle schools, and one high school. The student population is 75% white, 15% Hispanic, and 5% multiracial, with about 50% of students participating in a free or reduced lunch program. School academic performance has declined somewhat over the last eight years, with about 60% of students passing the state standardized exams in 2014-2015. The district has not formulated a specific policy or developed a strong culture of data-based decision-making, but the superintendent is interested in doing so.

Cannington School District is a mid-sized district with 11,000 students in 24 schools, including three middle and three high schools, and an alternative secondary school. It is geographically suburban and is located close to a major city. Over 99% of students qualify for free- or reduced-price lunch, 80% are Black, 12% are white, and 4% are multiracial. In 2014-2015, the year new standards were adopted, student proficiency rates ranged from about 13% (sixth grade math) to 60% (high school English), with overall proficiency rate of 30% of students scoring proficient or advanced. For the past several years, all schools use a "data team" protocol—regular meetings of grade-level or subject-level colleagues to engage in data analysis.

The three districts from Study B are mid-sized districts on the east coast. Littleton Public Schools is situated in a city and is one of the larger districts in the state. The district has 32,000 students in 45 schools. Over 50% of students qualify for free- or reduced-price lunch, 25% are Black, 15% are white, 15% are Asian, and 45% are Hispanic. Over one-third of students scored proficient in mathematics, and half did so in language arts in the 2015-2016 school year. This district had been focusing on raising the performance of Black and Latinx with attention to various data points (e.g. graduation, freshman retention, absences) and systems-wide professional development on culturally responsive pedagogy.

Suffolk School District is a regional district, covering over 200 square miles in the same Northeast state. The district has 10,000 students in 6 schools. Under 10% of students qualify for free- or reduced-price lunch, but that number is rising. 5% are Black, 75% are white, 10% are Asian, and 10% are Hispanic. The district is known for overall high performance but had relatively low state assessment scores (35% in mathematics and 50% in language arts), which leadership attributed

to a high number of parents who opted their children out of taking the test. District data practices has focused on identifying which groups of students are not performing well, based on both federal subgroups (e.g. special education, poverty) and district factors, such as sending middle school.

Table 1
District Characteristics

Sample	District Name	Locale Designation	No. of Students & Schools	Racial Demographics	Free or Reduced Lunch	Academic Achievement
A	Adeline School District	Rural, fringe	2,200 students 4 schools	90% White 5% Hispanic	25%	61% proficient in Mathematics 69% proficient in Language Arts
A	Bowman Public Schools	City, small	6,700 students 9 schools	75% White 15% Hispanic 5% multiracial	50%	64% proficient in Mathematics[1] 68% proficient in Language Arts
A	Cannington School District	Suburb, large	11,000 students 24 schools	12% White 80% Black 4% multiracial	>99%	25% proficient in Mathematics 55% proficient in Language Arts
B	Littleton Public Schools	City, large	32,000 students 45 schools	15% White 45% Hispanic 25% Black 15% Asian	50%	34% proficient in Mathematics 48% proficient in Language Arts
B	Suffolk School District	Suburb, large	10,000 students 6 schools	75% White 10% Hispanic 5% Black 10% Asian	<10%	36% proficient in Mathematics[1] 53% proficient in Language Arts[1]
B	Sheldon Unified Public School District	Suburb, large	9,000 students 10 schools	50% White 15% Hispanic 10% Black 20% Asian	10%	45% proficient in Mathematics[2] 63% proficient in Language Arts[2]

Sheldon Unified Public School District is a suburban district with 9,000 students in 10 schools. The district is over 50% white, 15% Hispanic, 20% Asian, and 10% Black, with 10% of students qualifying for free and reduced lunch. Similar to Suffolk, Sheldon has a high opt-out rate, which it sees as part of the rationale for only 45% of students proficient in math and 65% in

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[1] The district had a 34% opt-out rate for standardized testing.
[2] The district had a 15% opt-out rate for standardized testing.

language arts. The district has been working to develop principal and teacher data skills to identify disproportionalities in student performance.

Across both sets of districts, there were 18 principals from Sample A and 9 principals from Sample B (see Table 2). Superintendents informed their principals of both studies, and I interviewed all principals who were interested in being interviewed, aside from Adeline and Bowman, where only high school teacher were recruited.

Table 2
Participants

Sample	District	Participant	Site & Year as Principal	Race and Gender
Sample A	Adeline School District	Neil	High school, 3rd year	White male
		Timothy	High school, 3rd year	White male
	Bowman Public Schools	Edward	High school, 11th year	White male
		Evan	High school, 3rd year	White male
		Marlies	High school, 5th year	White female
	Cannington School District	Tanya	High school, 2nd year	Black female
		Mandy	Elementary, 3rd year	White female
		Michael	Secondary, 1st year	White male
		Brian	Elementary, 1st year	White male
		Rosa	Elementary, 8th grade	White female
		Melanie	Elementary, 4th grade	White female
		Sarah	Elementary, 3rd year	White female
		Arianna	Elementary, 2nd year	Black female
		Todd	Elementary, 2nd year	White male
		Darius	Elementary, 1st year	Black male
		Alison	Elementary, 8th year	White female
		Rochelle	Elementary, 1st year	White female
		Yvonne	Middle school, 1st year	White Female
Sample B	Littleton Public Schools	Courtney	Middle school, 5th year	Black female
		Ronaldo	K-8, 5th year	Latino male
		Natalia	High school, 4th year	White female
	Suffolk School District	Harvey	High school, 3rd year	White male
		Nick	High school, 1st year	White male
		Zelda	High school, 14th year	White female
	Sheldon Unified Public School District	Laura	Elementary, 10th year	White female
		Anna	Elementary, 14th year	White female
		Richard	Middle school, 13th year	White male

Data Sources

Data sources include semi-structured interviews of each of the principals. In two of the districts in Study B, Sheldon and Littleton, principals conducted the interviews together; the remaining interviews were all one-on-one. I used the same set of interview questions for both studies. Each interview was otherwise based on the specific research questions of Study A (data practices) or Study B (equity initiatives). The protocol from the first study included additional questions related to personal understandings of data, data for instructional design, and supporting teachers' use of data. Study B included additional questions related to participants' involvement in district-led professional learning and the district's equity work. Follow up questions to all prompts

probed for equity, such as "How do you use data to make decisions about instruction/course placements/discipline/resource allocation?" Each semi-structured interview lasted about 35-55 minutes and was held in the principal's office, except for one that was held over the phone. All names of individuals and districts are pseudonyms.

Principal interviews were chosen as the focus of this study because it became clear during data collection that principals had different beliefs about data and equity, and they had different practices related to equity. Ishimaru and Galloway's (2014) conceptual framework for equity leadership argues that leadership is situated; as a result, interviews with principals asked their perspectives on different influences on their work, including preparation, central office expectations, and their colleagues. This interview set offers a powerful exploration of principal practice related to equity-focused data use in diverse district contexts.

A challenge to this comparison is the potential risk of priming. While the data use question for principals in Sample B did not specifically name equity, it was asked within an interview where we had already been talking about equity. Similarly, the overall focus of interviews in Sample A was on data use, and principals in that study may be strong equity-focused leaders, but that did not come up in the interviews. This aligns with analyses that shows how discourses of equity and discourses of accountability are distinct and rarely overlap (e.g. Garner et al., 2017). This type of priming likely influenced some of the patterns that arose in the findings; however, the clear difference in findings suggests that priming is not the only factor in principals' responses.

Analysis

I drew on the constant comparative method to analyze the transcripts in this study, which had previously been analyzed individually (see Roegman, Samarapungavan, et al., 2018; Roegman et al., 2020). Glaser (1965) introduced this method as a way to generate "a theory which is integrated, consistent, plausible, close to the data, and in a form which is clear enough to be readily, if only partially, operationalized for testing in quantitative research" (pp. 437-438). Its goal is not reliability or theory testing, but to suggest properties of or hypotheses about a phenomenon (Glaser, 1965). Comparing data enables the researcher to create codes and categories, as well as connections and delineations between codes and categories (Boeije, 2002). As such, this method of analysis is ideal for this study, as I aim to explore principals' equity-focused data use practice and look for patterns across districts with different central office foci (data use or equity initiatives).

The constant comparative method is also useful as I am comparing data from two different studies. I was already deeply involved in Study B, having served as note-taker and facilitator for professional development sessions with participating superintendents, members of their leadership teams, and some of their principals. I was in the process of interviewing principals as part of the in-depth data collection. I had been involved in this project since 2008. In 2014, I began working with the research team leading Study A, and I was the lead on the administrative interviews as part of that study. In those interviews, when I asked the questions about equity and disaggregation, many principals reported that they focused on individual students and did not even think about disaggregating their own data. This was surprising for me, in light of the federal requirement to disaggregate assessment results (No Child Left Behind, 2001) and my knowledge of data practices of participants in the professional development sessions, and led me to ask similar questions of data use to the principals in Study A, to see what they would say. I assumed they would have different responses, and I added those questions to the interview protocol so I could have a more empirical grounding than just my impressions. Because I was collecting data for two studies simultaneously, and regularly memo-ing on my impressions after each interview, I was able to use emerging findings to create interview questions for each study that would inform the topic of this study, equity-focused data use. Comparisons between and across interviews support the internal validity of the findings

(Boeije, 2002), which refers to the internal validity, or trustworthiness, of the conclusions drawn from the data (Anfara et al., 2002).

　　While the constant comparative method is often written about, there is not one set process to engage in this type of analysis (Boeije, 2002). For this study, I followed Boeije's (2002) five-step process, which begins with looking for comparisons within an interview and then looking at comparisons within a set of interviews; I used a spreadsheet to code and compare all of the data. Thus I began by reading each interview on its own, coding excerpts relevant to both data use practices and references to equity, defining both concepts as broadly as possible. I used Ishimaru and Galloway's (2014) framework as a guide to create these initial codes, using participants' own words as much as possible to create codes related the three drivers of equitable leadership practice.

　　I then compared codes of interviews within Study A, and then did the same for interviews within Study B. In the third step, I compared the codes from Study A with those of Study B, looking for differences between the two sets of districts. In the fourth step, I compared principals from similar schools across studies; this is similar to the third step, except that I am looking at specific interviews and not as the data set as a whole. For example, I compared principals of schools that had a large majority of students of one race (e.g. 90% white or 90% Black), as well as schools of similar size and geographic region. Finally, in the fifth step, I compared groups from the fourth step with each other. For example, I compared codes from principals of small, rural schools with those of large, suburban schools. By systematically comparing interviews in different ways, as described by these steps, I was able to identify a number of similarities and differences within and across Study A and Study B. At the same time, these different levels of comparison enable me to explore whether some of the differences that I had initially ascribed to central office expectations might also be connected with geographic, size, or student demographic or performance factors.

　　Through these cycles of comparison, as I looked between, within, and across data sets, I began to identify patterns of data practices that were relatively unique to each data set. I also identified similarities and differences between district types, regardless of data set.

Dependability

　　Contrasting quantitative notions of reliability—that this study could be replicated in a different context with different participants and achieve similar results—I draw on Lincoln and Guba's (1985) notion of dependability—coherence in terms of conceptualizing the study, designing it, collecting data, and interpreting findings. My methodological choices are outlined in-depth, both the original studies as well as my use of the constant comparative method to analyze data sets from those studies. This enables the reader to have a thorough understanding of my methods, and the reader can then evaluate the coherence of these methods with the framing of the study and the interpretations and conclusions I have made (Shenton, 2004).

　　This study is not generalizable to all school districts, in that it is not possible to argue for causality—that the district focus is directly responsible for the findings that I will discuss—because of the nature of the study design. Because the interviews were collected as part of two separate initial studies, there is a question of "fit" and whether data collected for one purpose could be re-used for a different purpose (Heaton, 2004, 2008). However, as an exploratory study, its purpose is to compare principal practice and consider the role of central office in their practice. Findings, below, do suggest a clear pattern of empirical association, creating the opportunity for future studies that can be designed with causality and generalizable as goals.

Findings

Patterns existed between the principals in each set of districts. Principals in Sample A (performance-focused) were more likely to discuss analyzing data in terms of performance indicators with an overall emphasis on proficiency on state standardized exams, while those from Sample B (demographic-focused) were more likely to discuss data in terms of student demographics with an overall emphasis on reducing disparities in access or outcomes (see Table 3).

Table 3
How Principals Report Analyzing Data

	Ways to Analyze Data	Performance-Focused Principals (Sample A)[3]	Demographic-Focused Principals (Sample B)
By Student Demographics	By race	2/18	9/9
	By gender	3/18	5/9
	By free- or reduced-price lunch	1/18	5/9
	By special education or language status	6/18	9/9
By Performance	By teacher or grade level	11/18	7/9
	By standard	6/18	0/9
	By performance category (e.g., basic, proficient)	8/18	7/9
	By individual student	9/18	4/9

District Expectations in Both Samples

Principals in both samples shared different types of expectations from their superintendents and central office administrators about how they used data. They were in agreement that their superintendents and supervisors working out of central office expected them to use data, but between the two samples, there was a reported difference in the primary focus of the data use. Within each sample, differences also existed in the specifics of what "using data" meant. While the expectation was shared, the specific tools, practices, and processes to be used were not always clear to principals, especially those new to a district.

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[3] One principal was not directly asked if she disaggregated data, but she did reference doing so in other parts of the interview.

Using Data to Drive Performance

Principals from Sample A reported high expectations related to data use, in that principals and teachers should be using data, but not always specifics as to what they should be doing with the data. Timothy, from Adeline, for example, shared that central office administrators "have very high expectations, by all means. They want all kids to succeed, and think we should be held to a very high standard." He went on to describe the different meetings related to data, data platforms the district used, and professional development sponsored by the district that he was expected to use. Cannington principal, Arianna, said that her central office supervisor just assumes that she is analyzing data because of "the data sheets, which we have to turn in…I guess that's a way she's making sure that we actually [look at data] because we do have to share out the [benchmark assessment] scores." While Arianna did not report the same level of support from central office as Adeline principals, she, like all principals in Sample A, did report the expectation, or assumption, that principals use data on a regular basis in relation to student performance.

Data use to drive performance was an expectation from central office for principals themselves, and for principals to support with their teachers. Several principals from Cannington, for example, reported that principals were supposed to complete "data sheets" and turn them in to their central office supervisors. They were expected to ensure that teachers worked in "data teams," which was an initiative of the incoming superintendent, who was in his first year during data collection for this study. Evan, a high school principal from Bowman, also talked about expectations for teacher use. He discussed meetings that he attended with teachers focused on student performance on benchmark assessments. Evan reported that "the teachers will keep track of [tested subject areas], looking for mastery" and planning on reteaching if 80% of students did not show mastery."

Using Data to Identify and Address Disparities based on Demographics

All of the principals in Sample B were clear about the role of the superintendent in creating an equity focus in their district. They all shared their understanding of the superintendent's expectations that they analyze data from an equity perspective and paid attention to the performance and opportunities of specific groups of students. A Littleton principal, Ronaldo, for example, said that

> I really have to attribute it to [the superintendent's] leadership in the district that really introduced the concept of equity, and us really promoting a conversation about it. And what it's caused me, as principal, to do is really look at those scores in a very finite manner, really focused manner, in looking at the performance of students according to the demographics.

Anna, an elementary principal from Sheldon, noted that the superintendent "has really brought a lot of" attention to the performance of Black and Latinx students. She reported that the district "has always been a high performing district [and] he's brought in more of looking at where there are inequities."

Principals from Sample B shared specific expectations that central office administrators had for them related to demographics, equity, and data. Nick, and the other two principals from Suffolk, all shared ways that the superintendent and central office administrators have supported them in implementing new initiatives based on their equity-focused data use. He noted that "the district's done a good job of kind of bringing in folks to help us work on [revising curriculum], and then, obviously, giving us the collaborative time to get our teachers together to work on those strategies as well" as they prepared for more heterogonous classes, as a result of a ninth grade de-tracking

initiative. Beyond this, in one of the districts, each principal was expected to identity a building goal based on inequities in their benchmark assessment data as one of the principal's goals for their formal evaluation; in another district in this set, each principal was expected to create a detailed "equity map," highlighting different demographic groups' performance on variety of metrics.

Lack of Central Office Clarity

Despite expectations for data use, some principals, mostly from Sample A, reported limited support or specifics in what this actually looked like. Timothy, an Adeline principal (Sample A) said that there were not specific expectations in terms of the types of analysis he should be doing specifically at his school. Similarly, several Cannington principals, also from Sample A, reported a lack of clarity of what should be happening within the data teams, and frustration that they submitted data sheets with no feedback or support from central office.

Often, principals reported learning about using data from their colleagues or on their own initiatives, instead of from central office directives. Zelda, a high school principal from Suffolk, shared how she learned about a specific practice from a supervisor who worked at a different building, "so I talked to my supervisor about doing some of the same things that [the other supervisor] is doing." Littleton principal Courtney also shared her learning from other principals, and how the opportunity to be in other buildings, organized by the district, led her to learn from them. Sometimes, she would just ask, "Can I take a picture just really quick?" if she saw something interesting displayed on the walls. Sharing images of data walls was also a common practice in Cannington. While not all principals reported a lack of direction from central office, several noted where they went for help with data, which was more often their colleagues or their own research.

Principals' Data Practices

Just as principals reported different expectations from their superintendents and central office supervisors, they also reported different ways that they used data. Principals from Sample A were more likely to talk about data in relation to student performance, identifying areas to focus on for reteaching or students for remediation. In contrast, principals from Sample B talked more about using data to identify disparities in students' placement in different learning opportunities or their outcomes based on their demographics.

Data Analysis by Performance

Performance-focused principals from Sample A districts that had systems-wide efforts related to data use, reported regular use of data that focused on working to ensure all students passed the state's standardized exams. For example, Neil, a high school principal, discussed sharing data with teachers with the goal of identifying areas to focus on:

> We'll start to spin it, like everybody else does, as far as what matters. With last year's [state standardized assessment] we knew that reading nonfiction was our weakest area. That's not a surprise. It was something that we identified as one of our weaker areas. We've known in Algebra 1, the kids who can't solve equations or inequalities, the rest of it doesn't really matter.

Another high school principal, Edward, shared how he and his school leadership team analyzed benchmark assessment results item by item, examining the mistakes that students made and identifying what teachers need to cover in the upcoming weeks. Then, each teacher was expected to identify a goal, such as, "Today my kids are at 40% proficiency on this standard or this indicator. In four weeks, I want my kids to be at 65%." Together, Edward would work with teachers on developing plans for how to get their desired results.

Often, performance-focused principals analyzed data in a way to identify where support was most needed, such as targeting more help to one grade level over the other, or aiding specific teachers or subject areas. For example, Yvonne, a middle school principal, saw that the year before she took on the position, "we dropped a lot of points in math last year on our state assessment," and she also noted that two of the teachers were "not the strongest." As a result, she chose to focus on math in general as well as supporting those two teachers in particular. Working in Cannington with Yvonne, Darius, an elementary principal, shared how his school implemented the district's data team approach:

> [It's] mostly teacher-led…they analyze data by identifying the proficient, advanced, below basic students. And then we analyze each one of the strengths and weaknesses of those groups. And then we come up with instructional strategies where we need to create interventions for those groups.

Like many principals in his district, Darius worked to ensure teachers were using assessment results to group students to provide interventions or enrichment.

Half of the principals in this group also reported collecting and analyzing data on specific individual students. These principals at the elementary level had detailed visual data displays on their walls, which generally were grouped by teacher and had a row for each student, tracking their current progress, often with complex color-coded notations. Allison, for example, pointed out her "data wall" that had a row for each child with "the levels that they should be on, and then where they really are," and the teacher's name. She could look at the chart and see if a student was on track to meet grade level standards. Also in Cannington, Rochelle looked at her data printouts and quickly identified an area of concern in the second grade: "We had 25 children who were in basic at the first benchmark. So, 20 have dropped down into below basic and 5 moved up into proficient." Todd, an elementary principal, had a similar concern, "looking at these individual students and why students are in certain areas, and they haven't made growth, or why some students are making growth?"

Data Analysis by Student Demographics

In contrast, principals from Sample B districts with systems-wide efforts related to identifying and addressing inequities reported regular analysis of data that took into account demographic characteristics, including race, gender, socioeconomic status, and disability or language status. When asked specifically about equity, principals shared a general philosophy as well as specific practices related to how they used data. Richard, a middle school principal, said that equity "sort of jumps off the page" and went on to talk about the small number of racial minorities at his school and how their performance on assessments and their participation in advanced coursework "stands out as an issue." He focused his data analysis on identifying opportunity gaps between different student groups and working to close them. From a different district in Sample B, Harvey discussed his school's "equity and opportunity report," a report they run to identify "any single kid who has a B+ or higher in an academic level course to move them to an honors course." Similar to Richard, Harvey used data to help him identity which students were ready to engage in more rigorous coursework, knowing that teachers in his school might not recommend a student of color for honors even if the student was qualified.

For principals in these districts, equity, race, or student demographics were a regular part of their comments about data use. They all reported disaggregating data by race and classification status (special education, language learners, or both), and five of nine did so by gender and socioeconomic status as well. Overall, these principals understood equity-focused data use as disaggregating data by student demographics and then addressing the inequities that arose. These data generally included access data, such as enrollment in advanced coursework, as well as achievement data, such as

standardized assessment scores. In contrast to this common approach in Sample B, many principals in Sample A outright rejected the benefit of this type of analysis, such as Neil—when asked if he ever disaggregated data by race, gender, or any other demographic characteristic, he said that central office shared that data with him but "I don't pay any attention to it. I don't know if that's right or wrong, but I don't." Like Neil, Sample A principals acknowledge the federally-mandated disaggregated reports, but few found this type of data useful nor did most disaggregate data on their own. Timothy, one of Neil's colleagues in Adeline, had a similar response, almost suggesting that he had not thought of disaggregating data. When asked, he said, "I usually don't. Makes me think, because you asked me that question." Rochelle, from Cannington, when asked if she disaggregated data by demographics, had a similar response: "I've never done that one. I wonder if I should."

One point of comparison was between principals that had similar percentages of racial breakdowns in terms of student demographics. For example, I looked to schools with one racial group was 80% or more of the population. Black students were the overwhelmingly majority at Cannington schools (Sample A), and Black and Latinx students were the majority at Natalia's school, in Littleton (Sample B). In contrast, in the other four districts, white students were the majority in all district schools. Looking at the schools that were majority Black or Black and Latinx, comparisons shows that Cannington principals were less likely to disaggregate by race. Rochelle, a Cannington principal reported that doing so would be like comparing "a watermelon to a lime" due to the difference in number of students. In contrast, Natalia reported that she was "excited" about the Littleton superintendent's attention to equity: "just knowing that the district is digging deep into [racially disaggregated data] and looking at success rates with ethnicity groups, looking at special education, it was all a win for me because it was something I am passionate about." She appreciated a district leader who was advancing a vision of equity that meant "different areas and different schools need different things."

Considering the schools that had majority white populations with smaller populations of students of color, there was a similar difference in Sample A and Sample B responses. Principals in Sample A from Bowman and Adeline rarely discussed disaggregating data by student demographics as a desirable practice. Principal Evan said of socioeconomic differences that "we treat [low-income students] like everybody else" and "we're not going to sit and make policy changes" in response to data disaggregated by demographic. In contrast, principals from Suffolk and Sheldon in Sample B, all of whom had schools that were also majority white, shared specific understandings of disaggregation and data practices related to race in particular.

Data Analysis to Change Beliefs

Two principals in Sample B talked about data use in conjunction with issues of culture and beliefs related to students' demographics, especially race and socioeconomic status. Ronaldo, principal of a K-8 school, discussed his recent reading of a book on culturally responsive teaching, and how it led to conversations at his school about "What are we doing, or what are we not doing to address the equity gaps that exist with our performance of our children?" From a different district in Sample B, Nick discussed teacher mindsets in response to encouraging students to take a more challenging course:

> you can open the barriers all you want, but if you don't change people's – if you
> don't attempt to change people's mindsets about what kids can and can't do, you're
> not going to be successful trying to raise that bar and getting open opportunities for
> kids.

For these principals, data use involved identifying inequities related to demographics and then using these analyses to address their perception of the root causes of inequity: teachers' mindsets and

beliefs. Culture and mindset did not arise in most of the interviews in Sample B, and in none of the interviews in Sample A; however, it is important to note that there were no direct questions related to teachers' beliefs about students.

Discussion and Implications

Comparing these two samples of principals illustrated key differences in how they talked about and used data within their buildings. On the one hand, it is easy to explain this as a result of how they were recruited to participate in the study. Participants from Sample A were already in a study of data use, and they talked more about using data to inform instructional practice, which was their districts' focus. In contrast, participants form Sample B were already in a study of equity initiatives, and they talked more about using data to identify and address disparities in data based on student demographics. Thus, there is a risk that the findings are merely a result of the study design.

However, the findings also suggest a pattern of empirical association connecting central office data expectations and principal practice. Within each sample, a degree of variation existed, often related to the participant's years of experience, but little variation appeared to exist based on participant's race or gender, or geographic region—no principal spoke of the role of the state department of education in how they used data in relation to performance or demographics (beyond attention to passing state assessments). Instead, overall the principals in each sample shared very different ways that they used data to inform their practice, and these differences were aligned to their district's data focus. This key finding aligns with Honig and Venkateswaran's (2012) discussion of the role of central office in influencing principal data practices and suggests a connection between what central office is focusing on and what principals are focusing on in relation to data. From an equity perspective, considering principals within distinct organizations located within specific sociocultural contexts (Ishimaru & Galloway, 2014), findings from this study suggest that a system-wide equity focus does influence the work of principals.

Conceptualizations of Equity and Data Use

Of note, in response to direct questions about equity and data use, as well as those related to disaggregating data by demographic categories, principals in Sample A overwhelmingly reported a strong focus on performance. Districts were focused on improving their data systems, with the goal of increasing proficiency on state assessments and improving student learning outcomes overall. Principals in these districts talked about data with an emphasis on performance that was aligned to the demands of the accountability movement in terms of specific proficiency levels on standardized assessments (Datnow et al., 2020). Their focus on the performance of individual students aligned with a focus on ensuring each student was prepared as best as possible for state assessments.

This suggests an understanding of equity as meeting individual needs, which would then not require an expectation to disaggregate data by demographics. However, when principals conceptualize equity at the individual level, they are "decenter[ing] the systemic nature of disproportionality" (Voulgarides et al., 2017, p. 72). While disaggregating data is not the only type of equity-focused data analysis, it is unclear how Sample A principals, overall, are identifying disparities related to race, class, and other systems of oppression or considering how these disparities might inform instructional practice or student experiences. Though it is critical for principals to attend to individual students and look at data at the individual level, research suggests that focuses on students as individuals will not addressing existing, systemic inequities (Gooden & Dantley, 2012; Parker & Villalpondo, 2007).

Principals in Sample B reported paying attention to race, class, and special education, in particular, in looking at data, but rarely spoke about how data were used to inform instructional practice. They were more likely to use data to identify disparities, and seemed to assume that when teachers had these data, they would know how to respond and address disparities in their classrooms. Principals in these districts talked about data with explicit attention to ways that student demographics predicted their placement or performance, and they considered ways to alter these trends.

Both Sample A and Sample B principals were attuned to access and achievement, two of Gutiérrez's (2012) four dimensions of equity, but only two from Sample B reported any degree of attention to power or identity. While disaggregating data is one part of equity-focused data use, it is only one part. If district- or principal-led data practices stop at the level of disaggregation, leaders risk perpetuating deficit thinking that blames students of color for their own poor performance and suggests there is something wrong with Black and Latinx students, not with the system (Brown et al., 2011; Kendi, 2019). A small number of principals in Sample B also discussed beginning to think about teacher mindsets as part of their demographic-focused practices, reporting on using data to create a sense of urgency for change or to show that equity-focused initiatives were working.

Ishimaru and Galloway (2014) highlight how leaders frame inequity as a central driver for equity-focused leadership. When school leaders move from framing of inequities as achievement gaps—implicitly putting blame on minoritized students—to framing inequities as school-based issues—such as teacher mindset or school policy, they move along the continuum of leadership for equity to greater proficiency. However, when principals focus on "fixing" individual students, such as through providing remediation or additional supports, Ishimaru and Galloway's framework places them at the very beginnings of this continuum.

On the one hand, the data practices of both sets of principals are important for attending to student learning. If principals do not attend to performance, on ensuring each student makes progress, and attending to the accountability demands of their job, they will likely be seen as ineffective. In fact, when these findings were shared with the principals from Sample A, they all agreed that they are focused on accountability and that is an important, if not the most important, part of their job. However, this leaves the question of how principals identify and address systemic inequities if they do not examine data to identify inequitable patterns in opportunity, experience, or outcomes. Disaggregating data, while not the end point of equity-focused data analysis, is a necessary step for equity-focused leadership (Ishimaru & Galloway, 2014). Without naming the groups of students who are experiencing inequitable education, opportunity, and outcomes, and without naming the racialized dynamics that underlay educational policies and practices, inequities will continue (Irby & Clark, 2018).

Implications

These findings support the need to continue to research district-level leadership, as it plays a central role in shaping school-level data use (Anderson et al, 2010). In fact, studies of data use that include both school- and district-level participants are beneficial in increasing understandings of how leaders can effectively use data (Honig & Venkateswaran, 2012). While the superintendents in these six districts were not participants in this study, it was clear that in each sample of districts, the superintendent and central office focus on data use or equity influenced principals' data practices related to either performance or disaggregation. Mixed methods studies are needed that can provide supporting evidence of the role of district-level expectations, and research is also needed in better understanding the mechanisms by which this process might happen. For example, it is possible that many of the principals were already attuned to equity prior to the district focus, or that they were hired because of the superintendent saw their equity focus aligned to that of the district's. It is also

possible that principals in Sample A were aware of their superintendent's interest in data around state assessments, and did not share their equity practice because they did not think it was what the researcher was looking for. These possibilities support the need for more research on how districts support site-based data practices and equity. A broad nationally representative survey, or a statewide survey of data use, administrated to principals and superintendents in the same district, and able to pair administrators' results, could offer a set of generalizable findings in this area as well. More in-depth research could better identify the degree to which principals from a range of districts engaged in both performance-focused and demographic-focused data practices.

These findings have clear implications for administrator practice at the building and district levels. If central office and superintendent expectations around equity and data use influence how principals analyze data, as this study suggests, then central office administrators need to be thoughtful and clear about their expectations, and they need to provide the supports necessary for teachers and principals to meet these expectations. As such, central office administrators need to reflect on their goals for data use, how inequities are made manifest in their districts, and the types of district-wide policies and practices that can support principals in data practices that lead to positive changes in their buildings. Professional learning for their principals and teachers should follow from district-wide goals or initiatives, and each educator should be provided with the tools, understandings, and time needed to engage in data in meaningful ways.

At the district level, the direct expectation to disaggregate data, identify inequities, and address them was followed by all principals in Sample B. While some principals reported having done so prior to the superintendent's focus, others reported that this was their first time doing so. For administrators to engage in the challenging work of equity-focused change, which almost always lead to resistance in K-12 school systems (Theoharis, 2007), they need to do so within a district context that supports that type of work. Mandates, in the form of central office expectations to act, can provide political cover for administrators in the face of backlash from stakeholder groups who favor the maintenance of the status quo at their sites (Welner & Oakes, 2005). Mandates matter—not necessarily on their own as linear relationships in which policymakers dictate and practitioners implement—but in the sense that equity-focused leaders can use mandates to further their agendas when facing resistant communities.

These findings also carry implications for principals in both types of districts—performance-based principals in districts focused on data-driven instruction and demographics-based principals in districts focused on disaggregating data—who are interested in leadership for equity. Very few of the principals referenced parents, community members, or students in terms of how they understand or use data, or in how they understand and act on inequities. However, engaging with various stakeholders around data is a central driver of leadership for equity (Ishimaru & Galloway, 2014). This is a potential area for principals from all district types to consider. Engaging with stakeholders can help principals better understand the challenges experienced from different parts of their systems and together develop a set of solutions to the problems they are facing.

For some principals in this study, the benefits of learning from each other were already apparent, often borrowing ideas across buildings. In this sense, they are already building an inquiry culture at the district-level, supporting their own building's improvement and showing some signs of vulnerability in asking for advice or feedback. These instances were relatively thin in the overall data collection, and instead they present an opportunity for principal leadership. Creating an inquiry culture is a necessary driver of equity-focused leadership within a district (Ishimaru & Galloway, 2014), and one that principals can do even without the direct support of central office administrators, as was suggested by some principals in this study. Many principals, especially from Sample A, already reported engaging in data analysis with teachers, though few used the language of inquiry. When central office expects data use, but does not provide specific information or support

around what that data use should look like, principals have the opportunity to work together with each other and within their schools to turn the potentially technical process of data use into rich, equity-focused inquiry.

Finally, findings suggest implications for policy, both at the state level and the district level. If superintendents and school boards develop and implement policies related to certain types of data use and provide principals with support in enacting those policies, they have a greater likelihood to influence principal practice. At the state policy level, state departments of education have flexibility in creating school report cards and various measures for school success. Requiring a specific set of data practices at the building- and district-levels sends a message to administrators about which data matter and how they should be analyzed. Future examination of specific state- and district-level policies that support equity-focused data analysis, including different states' plans under the *Every Student Success Act* (2015), would further understandings of how different levels of policy influence different data practices.

Concluding Thoughts

Students of color, low-income students, students who are classified or learning English as an additional language, all minoritized students need administrators to develop equitable policies and practices that lead to equitable classroom experiences and academic outcomes. Strengthening understandings of how district-level administrators support, and how school-based administrators enact, site-based data analysis from an equity perspective is a key step in this work.

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