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Cover Page Footnote

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Data at the Diocesan Level: Common Data Practices and Challenges Among U.S. Catholic School Superintendents

*Julie W. Dallavis*¹

Abstract: Accountability pressures in education have risen steadily over the last two decades and public schools and districts now track school- and student-level data in response to state and federal mandates. Catholic schools and dioceses have not faced the same level of regulation over this period, and less is known about data access and use in the Catholic sector. This descriptive and exploratory research draws on survey and interview data from a national sample of Catholic school superintendents to examine data practices in diocesan central offices as well as barriers faced in the use of data. Findings suggest that although considerable variation exists among dioceses, common data efforts include working toward data centralization, developing tools to monitor the operational health of schools, and finding ways to foster the data culture within dioceses. These practices were present in close to half of all dioceses, but several common challenges related to governance, resources, and data systems hindered progress in and toward these efforts.

Keywords: Catholic schools, data practices, diocesan superintendents, operational vitality, school-level data

Over the last two decades, educational accountability has undergone a “seismic shift,” with federal and state mandates setting performance standards for schools and districts along with the possibility of negative sanctions if proficiency is not met (Mittleman & Jennings, 2018, p. 475). This increased accountability has required public school districts to build or improve data systems, practices, and transparency to meet regulations (Means et al., 2010). Many of these

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efforts have been funded by multiple million-dollar federal grants (Coburn & Turner, 2012; National Center for Education Statistics, 2021), allowing public schools to develop centralized data systems at the state and district levels (Means et al., 2010).

As private institutions, Catholic schools have not experienced the same level of regulation or funding for data infrastructure over this same period. Whether and how data practices have developed in Catholic schools is less clear. Despite being the largest system of private schools in the United States (McDonald & Schultz, 2021), the organization of the Catholic system differs substantially from the public system. Catholic school governance is located at the school- rather than the diocesan- (or district-) level. As a result, Catholic schools are connected loosely in a diocese and may face different challenges than public schools in advancing data practices.

Understanding the data landscape in Catholic schools is important for a number of reasons. First, Catholic schools may not face regulatory pressures, but as tuition-driven institutions they do face market pressures and have experienced decreased enrollment over time (McDonald & Schultz, 2021). Second, operations data along with achievement data are necessary for school leaders to make decisions at the school- and classroom-level and for parents as they choose schools for their children to attend. Third, we lack a current sense of how Catholic school students compare academically to their public school peers. Previous national studies comparing academic achievement in Catholic and public schools are now a decade or more old (see Bryk et al., 1993; Carbonaro & Covay, 2010; Coleman & Hoffer, 1987; Reardon et al., 2009). Additionally, with school choice funding available in a growing number of states, many Catholic schools are facing increasing accountability pressures from state and local agencies. Perhaps most importantly, data use is considered an important strategy for improving schools and educational offerings (Coburn & Turner, 2012; Goldring & Berends, 2009), which could benefit schools in the Catholic sector.

This descriptive and exploratory research draws on a framework for data use by Coburn and Turner (2011) and seeks to understand the organizational context in which Catholic school central offices are approaching data. Specifically, I consider what types of data are available to Catholic school superintendents as well as what data practices they employ and the challenges they face in these efforts. A deeper understanding of the current national context may better position diocesan and Catholic school leaders as they build data infrastructure, develop routines, and create tools to assess school strengths as well as identify opportunities for growth.

Literature Review

Greater accountability has increased the collection of educational data including standardized test scores, school- and student-level demographics, and teacher observation data. Research suggests that the value of these data is dependent on their use (Coburn & Turner, 2011), and policymakers have touted data-informed decision-making as a means for improving school- and

student-outcomes (Goldring & Berends, 2009). Education researchers point to data use as critical for understanding the link between educational data and school improvement (Coburn & Turner, 2012; Grissom et al., 2017; Marsh, 2012; Spillane, 2012).

Framework for Data Use

Data use encompasses multiple steps from data access to analysis to action (Grissom et al., 2017) that likely differ school to school. Coburn and Turner's (2011) framework for data use acknowledges that understanding the organizational context is a prerequisite to designing ways to encourage data practice as well as determining the outcomes related to data use. Within the organizational context of schools, Coburn and Turner argue that district- and school-specific data routines draw attention to what data are worthy of focus and discussion. Data availability and access, how time and resources are applied to data activities, the norms that shape interaction with data, the role of leadership in data activities, organizational decision-making, and authority structures all influence how schools interact with data. Thus, an understanding of context is necessary in order to plan for and enact successful organizational change in data practice (Coburn & Turner, 2011).

In education, the organizational context exists at multiple levels—district/diocese, school, and classroom. To understand data use, researchers have considered it a systems problem, examining the relationships between the different levels and the actions of each (Honig & Venkateswaran, 2012). Research suggests the district level plays an important role in advancing data practice in schools and classrooms (Anderson et al., 2010; Datnow et al., 2007; Farrell, 2015; Honig & Venkateswaran, 2012; Park & Datnow, 2009; Wohlstetter et al., 2008). This relationship is not one-sided, however. Central offices rely on access to school data while schools rely on central offices for help in understanding and making use of data (Honig & Venkateswaran, 2012).

Catholic Diocesan and School Context

The U.S. Catholic school and diocesan context differs considerably from the more top-down U.S. public school system. Catholic schools are more accurately described as a loose system of schools rather than a school system, grouped into 175 geographical dioceses in the United States (McDonald & Schultz, 2021). While public districts can range in size and number of schools, there is greater variation among Catholic dioceses, which can range from a large metropolitan area to an entire state. A single diocese can encompass rural, urban, and suburban schools. The largest metropolitan dioceses have a hundred or more schools in close proximity while the most rural dioceses have fewer than 10 schools spread across hundreds of miles. The majority of Catholic dioceses fall somewhere between the two (McDonald & Schultz, 2021). The number of personnel in diocesan school offices also varies from one part-time administrator in a small diocese to more than 40 in the largest dioceses. Roughly one quarter of diocesan education offices are staffed by one superintendent and one administrative support person (McDonald & Schultz, 2021).

The diocesan superintendent role also differs from its public counterpart. Whereas public school superintendents make decisions and institute initiatives and policies for district schools, the Catholic school superintendent serves in a more relational role and many act only in an advisory capacity (Brown, 2010). While there is variation, a Catholic school superintendent's authority often depends on the leadership style of the bishop and the historical relationship between the diocese and its schools (Brown, 2010).

Catholic schools are comprised of different school types, each with local control and ownership. The majority are parish-owned and operated elementary schools that usually serve students from preschool through eighth grade. With declining enrollment, many parish schools have closed or consolidated, becoming jointly owned by multiple parishes and governed by a board. Some parish schools have been ceded to the diocese for operation and management, and many dioceses sponsor high schools. Other forms of governance include independent schools owned and operated by religious communities, the majority of which are high schools, as well as newer systems or consortiums of schools sharing resources and board leadership (Goldschmidt & Walsh, 2013). While these independent and consortium schools serve students with the blessing of the bishop, the level of diocesan involvement varies considerably.

The principle of subsidiarity, mandated by Canon Law of the Catholic Church, allows for local control of Catholic schools, enabling pastors and school leaders to make decisions according to the needs of the local community (Brown, 2010). This means, however, that the diocesan superintendent often has less say over what goes on in individual schools (Brown, 2010). As the support, involvement, and direction varies, the relationship between Catholic schools and the central office is substantially different from the public system.

Catholic schools have not experienced the same pressures to increase data use, but they also have not had access to the state and federal grants, often worth multiple millions of dollars, that departments of education have invested into centralized, statewide data systems (Coburn & Turner, 2012). These systems and their related infrastructure and use routines have taken multiple years to build and develop (Means et al., 2010). As academic outcomes of public schools become more transparent, Catholic schools face increasing market pressures related to student- and school-level outcomes.

Catholic Sector Data Needs

Multiple studies cite strong academics as a primary reason that parents choose Catholic schools (Convey, 1986; Lockwood, 2014; Lopez Arends, 2021; Trivitt & Wolf, 2011). Descriptive, cross-sectional comparisons of student achievement show that Catholic school students score higher on standardized tests such as the National Assessment of Educational Progress (NAEP; DeBrey et al., 2021) and NWEA's MAP Growth (Dallavis et al., 2021) compared to their public school peers.

However, additional longitudinal and matched analyses are needed to better account for selection bias—that there is something unique about students who attend Catholic schools that is difficult to measure. The lack of comparable demographic information and test data for Catholic schools and their students hinders such analyses.

Religious education and faith formation are also important for many parents who choose Catholic schools (Cohen-Zada & Sander, 2008; Lockwood, 2014; Lopez Arends, 2021; Sander, 2005). Catholic schools have placed greater emphasis on strengthening the Catholic identity of schools in the transition from vowed religious sisters, brothers, and priests to lay principals and teachers in recent years (Convey, 2012; NSBECS, 2021). Resources such as the Assessment of Child/Youth Religious Education (ACRE) measure student catechetical knowledge and the National Standards and Benchmarks for Effective Catholic Elementary and Secondary Schools (NSBECS) help catalog what schools do to foster faith formation, measuring Catholic identity and faith-related outcomes continues to present challenges for school leaders.

Because Catholic schools are private and mostly tuition-driven, they face immediate concerns of operational health that are less of a concern for individual public schools. Over the last two decades, roughly 2,000 Catholic schools have closed (McDonald & Schultz, 2021) and issues of enrollment, resources, and financial viability are on principals' and diocesan leaders' minds. The decision to close a school impacts individuals and families in both the parish and local community (Brinig & Garnett, 2014), and accurate data is needed to inform such decisions and to identify where additional support might proactively avoid closure.

Research on Data Practices and Barriers to Use

Previous research on data practices in public school systems can provide some insight into data progress in Catholic schools. In 2010, the U.S. Department of Education produced a report on data use following the significant funding and investment in district data systems with the passage of No Child Left Behind Act in 2002. While nearly all public districts had begun using student information systems (SIS), just over three-quarters of districts had student assessment systems or data warehouses to collect and store longitudinal data. More than half reported using multiple data systems to store and work with different forms of data (Means et al., 2010). Several studies have identified common barriers to school data use, including lack of time, skills or personnel, and access to data (Grissom et al., 2017; Marsh, 2012). Others have identified issues with multiple data systems that are not integrated (Grissom et al., 2017; Means et al., 2010) as well as inadequate professional development (Grissom et al., 2017; Means et al., 2010).

A review of the research (Honig & Venkateswaran, 2012) documented ways in which public district offices report addressing challenges and supporting school leaders. These include assisting with data access by helping to collect, disaggregate, and report data; helping schools understand

data through goal setting and benchmarks, engaging in critical data conversations with principals; providing tools, resources, or time to support data use; developing and instituting expectations for data use; offering training through professional development; and modeling the use of data at the district level. Across these efforts, [Honig and Venkateswaran \(2012\)](#) argue that “relationships matter” (p. 216) and highlight the mutual dependence between district and school. Other research suggests central office personnel are key players in data efforts and decision making at the school level ([Anderson et al., 2010](#)).

One study examined differences between public districts and charter management organizations and found that “structure and decision-making rights, size and growth trajectory, financial resources, and degree of regulation [that] restricted or facilitated the systems’ mobilization of resources” with regard to data ([Farrell, 2015, p. 439](#)). Thus, it follows that with differences in context—governance, structure, resources, and accountability pressures—Catholic school data practices and challenges may mirror public schools in some respects, but look somewhat different in others.

Data and Methods

To better understand data context in Catholic schools, I began at the diocesan level to unpack the embedded layers of data use ([Coburn & Turner, 2012](#)) using a mixed methods approach of surveys and interviews with Catholic school superintendents. Initially, a survey was distributed at the superintendent meeting at the National Catholic Educational Association (NCEA) annual convention in 2019. The survey sought to understand data access, collection, and use at the diocesan level. Following the meeting, the survey was distributed over email to the full national population of 175 Catholic school superintendents. After the removal of duplicate responses, the initial survey had a 34% response rate. Survey data was combined with data from the interview sample (described in subsequent paragraphs) and together comprised a 39% response rate ($n=68$). Although the sample cannot be considered fully representative, all regions and diocesan sizes were present in the data (see [Table 1](#)).

To identify the interview sample, I randomly drew from the entire population of 175 Catholic dioceses and archdioceses,¹ stratifying the sample first by number of schools in the diocese and second by region, with an oversample of the largest dioceses, using the NCEA *Annual Statistical Report on Schools, Enrollment, and Staffing* ([McDonald & Schultz, 2019](#); see [Table 1](#)). The oversample provided more than one perspective for the largest dioceses. I emailed invitations to participate to the superintendent and replaced dioceses that did not respond or declined using a random draw of the same size and region.

¹ Subsequently, I use the term dioceses to be inclusive of archdioceses.

I conducted interviews between March 2020 and November 2020 over Zoom with superintendents or their delegates, usually an assistant or associate superintendent. Two interviews included more than one individual. Interviews lasted between 45-60 minutes and were audio-recorded. Using a semi-structured protocol, I first gained a sense of the size and context of the diocese before moving to a set of common questions regarding diocesan priorities, data practices, perceived data challenges, and aspirations for data use.

Table 1

Total Diocesan Population, Survey, and Interview Sample Descriptives by Number of Schools and Region

Stratification Characteristics	Total Population of Dioceses (N=175)	Survey (n=68)	Interview (n=27)
Number of Schools			
<10	24	6	3
10-24	58	19	8
25-49	61	27	9
50-99	22	10	3
100-149	6	4	2
150+	4	2	2
Region			
New England	11	3	2
Mideast	24	12	4
Great Lakes	29	14	4
Plains	25	7	4
Southeast	34	15	5
West/Far West	52	17	8

Note. Total population of dioceses by number of schools and region based on information in [McDonald and Schultz \(2019\)](#).

Relevant survey data are presented within the text using descriptive statistics. Interview data were transcribed for analysis and coded using an iterative process to surface common themes and patterns. Early readings of the data focused on data access, practices or routines, and challenges, looking for areas where superintendents report investing the most effort into data. In subsequent readings, broad categories were refined, looking intentionally for disconfirming evidence and outlying cases to gain a sense of variation ([Saldaña, 2012](#)). Finally, I mapped codes by number of schools and geographic region to consider the possibility of patterns in responses based on diocesan characteristics.

Findings

Three common efforts—working toward data centralization, creating tools to monitor operational health, and growing the data culture—were described by superintendents in the interviews. I found that a considerable share—roughly half—of the dioceses had made substantial progress in these efforts while other dioceses were beginning or considering this work. Survey and interview data complement each other. I present relevant survey data first, followed by interview data to provide further context.

Working Toward Data Centralization

Catholic dioceses have been on their own to pursue data centralization, often with few resources and limited staffing. Some dioceses have made substantial progress by adopting common student information systems (SIS) and common interim or annual assessments in all schools in the diocese. The use of uniform systems with central office access allows superintendents the ability to monitor trends in the data, without having to collect information from each school, a timely endeavor for diocesan and school personnel.

Survey results suggested that in more than one third (38%) of dioceses, all schools use the same SIS (see [Table 2](#)). In 28% of dioceses, there are two SIS in use. In another third (32%), there are three or more systems in use across different schools, with a few dioceses reporting as many as six systems. Only one diocese in the survey reported not using an SIS. Interview data suggested that in some dioceses, P-8 schools use a common system while high schools use a different system.

Roughly 37% of dioceses surveyed reported that all P-8 schools are using the same interim assessment (see [Table 2](#)). Thirty-one percent report two tests and 25% report using three or more interim assessments across the diocese, with a few dioceses reporting as many as five. Roughly 7% of dioceses did not include an interim assessment in the survey. Some dioceses without interim assessments continue to use annual assessments. Close to half of the dioceses surveyed report using one annual assessment. Thirty-five percent report taking a state assessment. Interview data confirms the trend that schools and dioceses increasingly are adopting interim assessments for monitoring student achievement multiple times during the school year.

In the interviews, I found that centralizing and standardizing data is on the mind of most superintendents. Some have made this organizational shift while others are working toward it. Of the 27 superintendents interviewed, over half had a common SIS and more than three-quarters had some form of common assessment. Just over half had both a common SIS and assessment with central access. Dioceses with these systems were present in all regions and size categories. Several superintendents also discussed plans for common financial systems.

Table 2

Proportion of Dioceses Reporting Number of SIS and Assessments in Their Diocese Based on Survey Data (n=68)

Number of Systems	Student Information Systems (P-12)	Interim Assessments (P-8)	Annual Assessments (P-8)	Diagnostic Assessments (P-8)
0	.02	.07	.49	.46
1	.38	.37	.49	.38
2	.28	.31	.03	.13
3+	.32	.25	0	.03

Note. Due to rounding, some columns may not sum to 1.00.

Having centralized access to schools' data allows the superintendent to provide additional support to schools and to diagnose problem areas. As one superintendent stated, "Our schools can't do it by themselves . . . I think by getting more data we can plan on how to help with enrollment management, how to market, how to advise principals." With additional data, superintendents can provide tailored assistance based on specific needs. Another superintendent described the desire for data to help schools work more closely together: "I want to get everybody on the same system so that we can collect data together and we can use that data to drive our goals." Using centralized data can help bring schools together to address common areas in need of attention.

Superintendents are also seeking greater standardization, especially related to tuition and salary practices. Without centralized data or data sharing among schools, superintendents have limited access to this information:

Up until this year, the transparency wasn't there for me to see what the other schools are charging for tuition . . . Those types of data points are important for us to discuss because I want to make sure that all of our schools are competitive.

For most superintendents this centralization and standardization is a work in progress, but many recognized the possible advantages that could come with increased cooperation among local schools. Particularly, greater numbers would allow schools to take advantage of efficiencies and economies of scale, as systems and assessments can be expensive for a single school to adopt on its own. As one more centralized diocese explained,

When we feel like it is a diocesan-wide initiative, we do it in all [of our] schools. There are probably few things we would pilot. We try to have it all laid out beforehand for efficiencies and economies of scale.

This negotiating for group and larger scale pricing came up in several interviews for those who are currently using common systems, referencing an option that is simply not available to individual schools.

In addition to cost effectiveness, central office staff recognize that these systems can provide increased efficiency for school and central office personnel. As one diocese that recently made the change described the process:

There was a little bit of pushback, but now it's like, why weren't we doing this for years?... It's just more efficient and more effective . . . Everyone's on board now and it's taken us a while to get there, but I'm very proud and they're proud. And it lightens the load a little bit. Gives access quicker.

Several superintendents discussed the time-saving nature of having centralized information and the ability to download needed information from the system without having to collect it. As another superintendent described it:

If nothing else, it just cuts down on the time because we get the random, "how many kids do you have in after school care," or, "what is the percentage of this or that?" . . . Instead of having to send an email to all the principals and then collect the data then put it somewhere else and send it back to someone, we can just log in and pull it ourselves right then . . . It's always the most up-to-date information without the middleman.

Although those on centralized systems are enthusiastic about efficiencies, they acknowledge that getting on uniform systems is not easy.

Because of local governance, many superintendents are only able to encourage, rather than mandate, a shift to uniform systems. Thus, some superintendents have begun laying groundwork for systems months and years in advance, making the case and preparing schools for change. An admittedly slow process, several superintendents reported taking this gradual approach. One superintendent discussed the move to a common system as simply encouraged. Others report being "transparent" or "strategic" in bringing up these ideas with school leaders:

I've found that if there's a big new initiative, like a new student information system, I start talking about it months before I need to get people used to the idea. They can start complaining a little bit and then I keep pushing a little bit, but then I also found that if I use people from their schools as part of the team they feel like they've been kept informed and they are a part of the journey.

School leaders often require convincing to make the move to data centralization. Some dioceses have offered incentives that can assist in funding the transition, tying use of systems to aid. This provides what one superintendent described as “leverage.” Another described a successful transition as beginning with pastors:

The process started by talking to the pastors of those schools that did not have it and saying we have to get the money in here to do it and then working with [the company] to give us a diocesan price, kind of a cut or benefit. The schools that we finally got on [the system] . . . the diocese had to help throw some money in and then of course we had to get the training done for their staff.

Similarly, some have linked diocesan tuition and financial assistance to the use of common systems. As one described it: “In order for each school to be eligible for tuition assistance, they had to get on board with the [financial] management system.”

Superintendents also shared that use of these systems, while helpful, was not always a panacea. One superintendent stressed the need for everyone to use the systems: “You can have all the tools in the world but if you don’t use them correctly or if people don’t feel comfortable to use those tools, then, you know, it’s just a rock sitting in the corner.” For several superintendents, successful use at the diocesan level depends on accurate and complete information entered at the school level. As one superintendent explained, “It takes a certain level of diligence in terms of vetting and staying on top of that information and reviewing it and pushing it back to the principals when it’s incomplete.” In addition, some superintendents expressed frustration that many systems do not “talk” directly to each other or are not easily integrated, and the multiple systems—student information, test assessments, financial systems, human resources—can be difficult for small offices to navigate:

Because our data is not linked, that makes it a challenge. And that’s one of the things that I found at the diocesan level is, if you don’t have a big office and you don’t have software. . . . They’re usually on separate databases, separate systems, that don’t talk.

This causes frustration because these individual systems require considerable effort to combine data from multiple systems.

Although many dioceses have made the move to centralized systems and others view this as a priority or in progress, there are some dioceses that currently do not have plans to centralize. As one described their situation:

The way we're structured in our diocese [is that] we are a system of schools, not a school system. So, each of our schools, quite frankly, is an independent entity. So, they have all of their data Some use it very well. Some not at all. But there is no way that I can use that data. I have no way to access it, nor would I be able to manipulate it in any way So, there's just no structure in place to really [centrally] use data well.

Unless the superintendent has the authority to mandate change or the willingness to find creative and sometimes financial solutions necessary to convince schools to adopt these systems, some see little prospect for success.

While governance in Catholic dioceses appears to be a substantial challenge, in addition to cost and individual school-willingness, some superintendents' appetite for change also determines the rate of progress toward centralization. Considered against the Coburn and Turner framework (2011), the move toward uniform systems is an effort to address the lack of access to school-level data in the central office. Both the relationship between the diocese and its schools, and the superintendents' conception of the role and its limits appear to influence a diocese's move toward data progress and the extent of data practice.

Developing Tools to Monitor Operational Vitality

Dioceses with and without centralized data, and across size and region, reported creating tools to monitor the operational health of Catholic schools. While these have multiple names such as snapshot, scorecard, index, matrix, report, dashboard, they are usually static summaries that contain some combination of metrics on various aspects of school operation. Of the dioceses surveyed, 44% reported using a data monitoring instrument. Closer to 40% of dioceses in the interview sample discussed current summary reports, and slightly less than a quarter reported plans for developing such reports.

Superintendents discussed using these tools to identify "gaps" to determine where to provide support. As one superintendent described, "I need to be like a country doctor. I need to know where the ailments are." For many superintendents, the focus of these instruments is school operational health. Another superintendent explained: "We can't know which schools are financially sound without pulling in financial data or enrollment data, retention, admissions, inquiry, academic excellence." Superintendents collectively suggested that a better understanding of each individual school provides insight into what the school system looks like as a whole.

Several superintendents discussed the effort, "to serve the principals and the pastors to help them run their schools as best they can," as the reason their role exists. Further, superintendents expressed hope that data will be used proactively through these tools. Some acknowledged the

tendency toward more historical and reactive data use in Catholic schools. One superintendent elaborated:

We're trying really hard to look at the sustainability of our schools . . . What will our numbers look like ten years from now?... We're trying to say to our communities, "Hey, this is what we're anticipating so let us help you plan for your future."

Acknowledging that pastors and school leaders may not be business and marketing experts, and that some may have varying expertise as instructional leaders, superintendents seek to empower stakeholders with data and organizational tools needed to make informed decisions. To do so, superintendents described collecting a range of data points, "anything that could come up that could cause trouble or that can highlight the positives." As another put it, "It's financial. It's academic. It's operational. It's enrollment. It's demographic. And it's just really pulling all of that into some kind of coherent fashion to make sense." These monitoring reports often include some form of benchmarking, as one superintendent explained: "We created a rubric around academics, finance, enrollment, leadership and some other areas to provide a data snapshot of our schools that will allow us to provide the interventions or determine what are our most critical schools."

Superintendents reported developing these snapshots over time, first by identifying the necessary metrics, followed by data collection or organization, and often as part of a multi-year project: "We started looking at the various metrics of school performance. So, everything from operational vitality to academic excellence. And we tried to say, what are the right measures? And we're constantly refining those." One superintendent described their diocese's progress as "still kind of in a visioning phase of it. So, I have to figure out what, you know, when we look at a picture of a school, what are those data points?" Another shared their progress:

The dashboard probably won't come for another two or three years. The first year or two is going to be let's get these assessments in place. Let's get this data collected on a regular basis and start reviewing it, seeing what it tells us and then once we get that, let's build that dashboard.

In order to create these tools, the central offices must have data. Dioceses with central access to school information have an advantage, but each of the systems—student information, assessment, or finance system—often require multiple downloads, data organization, and entry of information into some form of report. As one superintendent described it: "The problem is we don't have software that's going to automatically populate. I've got to do it by hand. It'll be a static snapshot and if I get it once a year, I'm lucky." These snapshots remain time-intensive to create.

I found that the lack of central access has not prevented some dioceses from creating these tools. Several dioceses have launched surveys and other data collection initiatives to amass the data needed to create these individualized reports. Others have mined information already collected:

So, we already have that information, it was in a file. . . . We had to have a lot of staff meetings to figure out where is this stuff?...We needed the capacity to be able to mine it as we went along. . . . I would love for it to be a click of a button and do it. But it's still a little labor intensive.

While larger dioceses often have dedicated data personnel, data tasks are the responsibility of the superintendent in most small and medium-sized dioceses. Some small dioceses have identified talented teachers that assist on a part-time basis. Regardless of who is doing the data work, there is an investment of time that some dioceses are better positioned to dedicate to these instruments than others.

Superintendents described using these reports to initiate conversation with school stakeholders and leaders. Several mentioned bringing the report to the school leader and pastor to begin discussion about operational health. As one superintendent recounted:

We can use [the monitoring tool] to have just an initial conversation about a school's viability and we're having those conversations a bit more than we used to given the current reality that we're in. And again, it's a starting point [for considering interventions] and [to] be able to hone in on what they need to do.

Superintendents described these meetings or calls as opportunities to “walk [school leaders] through what's important,” helping to focus attention on identified areas of concern. Some superintendents can be more directive but others are limited to presenting the data, as one shared: “I might say to the principal, ‘Hey, I'm looking at this and it tells me XYZ, you know, take it for what it's worth.’” Regardless, superintendents reported that a monitoring tool “allows you to have some really good conversations with schools.” These conversations enable superintendents to help school leaders make sense of the data with the goal of formulating proactive responses.

Nearly half of the dioceses surveyed and interviewed reported the use of some form of summary tool to capture data on different aspects of school operation in order to monitor progress and identify areas of concern. This practice requires not only access to data, shared either through central access to common systems or through data collection, but also the investment of resources and personnel, namely in the time it takes to gather, organize, analyze, and present the data to school stakeholders. These monitoring tools, when considered against the [Coburn and Turner](#)

(2012) framework, draw attention to the needs of the schools and diocese and highlight the types of data of primary importance to the sector. The routines of gathering necessary data to gain a comprehensive understanding of school health and the communal accountability related to the use of these summary reports provide a means for organizational change through proactive assessment of areas of vulnerability.

Growing Data Culture

Superintendents in all size dioceses and regions acknowledged and discussed efforts related to developing a data culture among school leaders. For some, this began with recognizing the uncertainty involved in taking a close look at processes and outcomes. As one superintendent stated, “There’s going to be a lot of data that might be scary to people. How do we help them deal with that?” For some, this requires anticipating responses and providing reassurance:

I think a lot of the hesitation [for the dashboard] came from fear. I think the fact that nothing bad happened, it was just a conversation that could help. We aren’t trying to penalize you; we are just trying to help, and we needed something in our office [to look] across [schools].

Superintendents discussed using the data constructively, working with schools to address what the data might reveal. Another superintendent expressed this similarly, “We say, ‘Okay. This is where we are, but this is where we are going to be and this is how we are going to get it right.’” Superintendents see these meetings as steps forward in addressing needs.

Improved use of data can lead to changes in school processes that can result in discomfort. As one superintendent explained, “Change takes time. So, just getting everyone to the same caliber of conversation about data and really having meaningful conversations about students using the supportive data points that you know they have.” Another superintendent saw the use of data as a way to help school leaders embrace change:

One thing that I think we could do with data is become more comfortable with the idea of change. and . . . instead of feeling like we’re a step behind or a beat late, it would bring us closer to the cutting edge. I don’t think that there’s a school in the world that’s not constantly changing. Just by virtue of our demographics we’re changing We’ve got to become more comfortable with that over time.

Here, data is described as a catalyst for change. To better deal with change, superintendents discussed further developing relationships and trust around the use of data, with the goal of

“building collaboration and collegiality.” Superintendents reported that this requires rapport and transparency, a sense of connectedness, and a reassurance that superintendent and principals share in this effort.

The more people get to know us, and we get to know them and [they] trust us, I think it’s easier to get them used to the idea that we’re going to become a little more centralized, still while leaving them autonomy as principal. I think that’s probably what they’re worried about, but I’m not interested in telling them how to run their school. I just want to be able to collect some data that will help us run the diocese better.

Relational trust is described as critical: “it’s building that trust and that desire in the leader to actually want to come along with us in this work.” Some superintendents seek to develop trust through modeling of data practice. A few superintendents viewed their data efforts as helping schools to see what is possible with data. As one stated:

If I’m going to make a difference and if I’m going to influence people, and I’m going to bring them along and help them see a better way forward that isn’t going to kill them, but it’s actually going to give them life, I have to model that, first of all. I have to practice what I preach.

By modeling data practice, superintendents develop expectations and norms related to system use and data collection. These efforts often start from the ground up. As one superintendent explained: “I didn’t realize the prerequisites [school leaders] didn’t have with working with data and all of that. It just wasn’t a part of their culture.” Some superintendents see the need to build data culture within the diocese, recognizing the need to convince some school leaders of the uses and value of data, hoping to instill “a combination of the confidence and the expertise to actually use data of any kind.”

Some superintendents discussed accessing the sense of community as a resource within the diocese. As one superintendent stated: “In this diocese, one of the things we try to do is say we’re all in this together, we all have to help one another.” By encouraging the sharing of best practice, schools can benefit from each other’s experiences. Another superintendent discussed “finding ways to . . . use our collective power to address individual needs. So, if ...we’re seeing a small trend across a few schools, how can we kind of connect those together to focus on that area.” Similarly, one superintendent described connecting two schools based on data—one school looking for a new math curriculum with another that had recently made strong gains in math—to take advantage of current strengths to support anticipated change. Another described how two schools might share enrollment ideas and strategies:

What I might say is, “This is a school that has a nearly identical demographic profile as your school does . . . Their school is at 95% capacity, yours is at 75% capacity. So, maybe they’re doing something different, and then maybe you can work with that principal to say, what is that something?”

Identifying areas of strength and growth within a diocese can assist in addressing school-specific issues.

Some superintendents, however, acknowledged reticence on the part of schools to share with other schools, “We don’t seem to readily share out of fear, or I don’t know competition, or we just don’t think to do it because we’re so into what we’re doing.” Some see the sharing of expertise and experience as the way to move Catholic schools forward: “The more we talk, the more we are brought together as Catholic leaders, the more we share ideas and stuff. I think we have an opportunity to really impact this ministry and to grow it again.” Convincing school leaders of the value of sharing expertise is an important aspect of growing data culture.

Overall, central office personnel recognized the relational inroads that are needed for the adoption and use of data information systems. This work involves building the trust of school leaders in the collection and use of data. Superintendents might also need to convince school leaders of the benefits of investing time and personnel in data work as well as the advantages of sharing data. They must acknowledge strong norms of local control, distinctly different balances of power, and tensions related to competition and fear of closure as they seek to advance data practices in the diocese.

Discussion

Survey and interview data suggested that Catholic diocesan superintendents are making some progress toward centralizing data and developing monitoring tools to assess operational wellbeing. Superintendents also appeared to understand the need to strengthen the data culture within their dioceses. For those with centralized access to student information and test scores, and even those who manually collect data from individual schools, the creation and use of monitoring tools for proactive conversations reflect an understanding of data use through steps of access, analysis, and action (Grissom et al., 2017). However, my findings suggest that while some dioceses are using some form of summary instrument, many dioceses are not. Considerable variation exists in how much data superintendents have access to, which influences the extent they are able to engage with data.

Evidence from this study echoes previous findings in public schools related to how central offices interact with schools regarding data. Similar to district superintendents, diocesan superintendents assist with data tasks for schools, help schools make sense of data, develop norms and expectations through conversations, and model data use through monitoring tool initiatives (Honig & Venkateswaran, 2012). They also report similar challenges, including time constraints,

limited access to data, insufficient personnel and expertise (Grissom et al., 2017; Marsh, 2012), as well as systems that are not easily integrated (Means et al., 2010). Public districts reported these as challenges close to a decade ago, yet it is clear that Catholic dioceses are just beginning to grapple with these issues. The data efforts described here—particularly toward centralization and monitoring—suggest significant and positive forward progress. However, some dioceses without data systems and practices saw development as taking years, suggesting a lack of urgency, which some Catholic schools may not be able to afford.

Catholic dioceses face additional challenges regarding data as well. Without access to public funding for data infrastructure, they have fewer resources to devote to data systems and monitoring reports. As the majority of schools are tuition-dependent, Catholic schools face different pressures related to enrollment and operations than public schools. I find that diocesan superintendents have a slightly different focus in their data work. While operational health of the school system may only be of some concern to public school superintendents, many diocesan superintendents prioritize the operational vitality of individual schools. In the Catholic school system, academic data are just one data source among many, with enrollment and other operational aspects of running schools of equal or greater importance.

The governance of Catholic schools also presents data challenges. In many cases, the decentralized, local control of schools does not allow superintendents to mandate the use or adoption of data systems. Instead, they must bring school leaders to consensus, build relationships and trust, and provide necessary rationale and motivation to move toward centralization; a much slower and time-consuming process that requires strong leadership and a willingness to engage. While not the focus of this paper, diocesan superintendents are also struggling with how to measure a significant aspect of their mission: the Catholic identity of schools and the faith formation provided to students.

The context of Catholic schools, however, does provide certain opportunities for data use and progress. Within Catholic dioceses, schools share a common mission of educating the whole child, of providing faith formation and academic excellence (Bryk et al., 1993). This shared mission may provide the starting point for dioceses to build the foundation for increased data use. Catholic schools and dioceses are described as having a strong sense of community (Bryk et al., 1993; Coleman & Hoffer, 1987). Depending on the extent that diocesan personnel are able to capitalize on this, a shared sense of community may enable the superintendent to rally school leaders around the use of data systems and processes for the common good of the school and diocesan community. While local governance provides some challenges, Catholic schools possess the ability to use data at the local level to make school-specific decisions and changes. The sharing of successful data practice across dioceses and schools may also help advance these efforts. Once challenges around data systems and analysis are addressed, Catholic schools may be better positioned to prioritize local decisions and act directly on information in ways that best fit the needs of the local community.

Examining the distinct context of data in the Catholic sector extends the understanding of data use in education and applies previous research in public districts to private and faith-based schools. Findings unique to the Catholic sector—the need for centralized data and the development of tools to monitor operational vitality—point to the importance of considering data practice through a framework such as [Coburn and Turner’s \(2011\)](#) that acknowledges the considerable variation present among school organizations, both within and across sector. Issues of governance, norms, relationships, leadership, and data access in the Catholic sector inform the interventions that attempt to effect organizational change. While there are common practices, the local context continues to play a significant role in how these evolve.

Although a national and representative sample was selected at random for the interview, the dioceses choosing to participate may reflect the experiences of more data-forward dioceses and thus may overstate the use of data in Catholic schools and dioceses. In addition, the survey, while including dioceses of all sizes and regions, gathered data from just under 40% of the full population of U.S. Catholic dioceses and thus may not be fully representative. This study drew on both survey and interview data to analyze diocesan perspectives of current data practice, but these methods did not provide a firsthand view of current data routines in action, nor did they provide insight to data routines at other levels of the education system. To gain a full sense of data practices in the Catholic sector, future study would benefit from the examination of data practice in action at the diocesan, school, and classroom levels.

Successful organization, access, and use of data are but a few of the challenges facing Catholic schools and central offices. An increased use of data and a clearer understanding of the current state of schools—including areas of vulnerability and strength as well as opportunities for growth—may better position Catholic schools to succeed in an educational landscape of increased choice. Proactively examining areas of vulnerability as well as opportunities for growth can help Catholic schools to fulfill their mission to provide excellent faith and academic formation to the students they serve.

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