What's the evidence on districts' use of evidence?

Cynthia E. Coburn
University of California, Berkeley

Meredith I. Honig
University of Maryland, College Park

Mary Kay Stein
University of Pittsburgh

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Contemporary education policies of various stripes increasingly demand that school district central offices use "evidence"—variously defined— to ground their educational improvement efforts. In the 1980's and 1990s, the standards-based reform movement pushed school systems to assess student performance against federal, state, and local standards and to use student data to guide their choices of improvement strategies. More recently, the federal No Child Left Behind Act (2002) has significantly raised the profile and the stakes of student achievement data as well as the importance of research-based programs. School districts are required to collect and analyze standardized test data and disaggregate them according to ethnicity, free and reduced price lunch status, special education, and language status. NCLB further requires that in order to receive Title 1 funds, districts must be able to show that curriculum adoption, instructional programs, professional development, and other forms of support to schools are rooted in "scientifically based research." Thus, the use of evidence in district central office decision-making is emerging as a critical arena of educational leadership and administrative practice. But what do we know about districts' use of evidence? And what does that suggest for the promise and prospect of current attempts to encourage districts to use evidence in their on-going practice?

In this chapter, we turn to the research literature for answers. Drawing on a comprehensive review of research on evidence use in school district central offices, we argue that central office administrators do use evidence in their decision-making, but in ways that stretch much beyond the model promoted by recent federal policy. Rather than the linear model of decision making assumed in policy design, the actual process by which district personnel draw on research is a complex and at times messy one that is mediated by individual and collective interpretation and shaped in fundamental ways by organizational and political conditions. We

further argue that it is only by understanding the underlying processes of decision making and the conditions that shape how decision making unfolds in complex social and political systems that we can begin to craft policies and interventions that can help districts realize the promise of evidence use. To that end, we offer key lessons for encouraging evidence use in districts--lessons that are rooted in the understanding of the social process of evidence use in school districts that our literature review has uncovered.

Method

This chapter draws on a comprehensive review of research literature related to district central offices and evidence use. Given our charge, we limited our search to publications related to district central office staff (e.g. superintendents as well as mid-level and frontline administrators) and deliberately did not include research on elected officials such as school board members. After an exhaustive and systematic search of the literature,[1] we ultimately identified 52 books, peer reviewed articles, and academic conference papers that were relevant to the questions of which evidence central office administrators use in their decision making and the process by which they use it. These pieces formed the basis for our analysis. Members of the research team read through each article, wrote summaries, and coded the articles. We then looked across the articles for key themes and characteristics of evidence use in school districts, as well as places where there were controversies and contradictions in the research.

Evidence Use in District Central Offices: Toward a More Complex Portrait

As evidence from the business world accumulates on the benefits of using evidence in decision making as a way to improve organizational performance, policy makers and others have

increasingly called for school districts to use evidence more routinely and systematically in their decision making. Yet, underneath the calls for school districts to use evidence sit a set of assumptions about the nature of evidence and evidence use that may not accurately reflect the realities of decision making in public bureaucracies such as school districts. More specifically, federal policy initiatives rest on assumptions that there is a relatively straightforward and linear pathway between evidence and district decisions intended to improve educational outcomes. That is, they assume that evidence is clear, unambiguous, and available; that decision makers use evidence in an instrumental fashion--weighing the merits of alternate courses of action and choosing the solutions that "best fits" the problem; and therefore that evidence leads directly do decisions (Honig & Coburn, under review).

However, our review of existing research on evidence use in district central offices suggests that the process is much more complex than images of evidence use in recent policy would suggest. First, appropriate evidence is not always available to central office decision makers for a variety of organizational and political reasons. Second, even if the appropriate evidence is available, evidence does not speak for itself. Rather, it must be accessed, noticed, and interpreted as it is used and these underlying processes of evidence use are mediated by individual and collective beliefs and worldviews. Third, two decades of research on the role of evidence in district decision making reveals a host of roles for evidence in decision making that go beyond those imagined by the instrumental model of decision making. Finally, our review suggests that all aspects of this process are profoundly and perhaps necessarily shaped by the organizational and political context within which they unfold. In the subsections that follow, we elaborate each of these arguments in turn. Rather than have a separate section on the role of

organizational and political contexts, we weave our discussion throughout, emphasizing how these factors shape each facet of the relationship between evidence and decision.

The nature of evidence

With the rise of accountability policy and increased emphasis on scientifically-based research, schools districts increasingly find themselves inundated with evidence. Social science and evaluation research are becoming an increasingly prominent part of the district landscape. And, there is so much data, that some describe districts as drowning in it (Celio & Harvey, 2004). However, despite these trends, district administrators often lack the *right* evidence--evidence that addresses the question or issue at hand, in a form they can access and use, at the time that they need it. District administrators have a particularly difficult time accessing findings from research or evaluation studies. Often, there are not studies that address the pressing issues that the district is grappling with (Corcoran, Fuhrman, & Belcher, 2001) and when the studies do exist, they may not be easy for district leaders to find and access (Corcoran et al., 2001; David, 1981; Roberts & Smith, 1982; West & Rhoton, 1994). Existing studies may also present contradictory findings (Corcoran et al., 2001; Fullan, 1980; Massell & Goertz, 2002) or come in a form that district administrators find too abstract or technical (Kean, 1980, 1983; West & Rhoton, 1994), providing little concrete guidance for decision making and action. There are also problems with achievement data. Data are not always in a form that allows district administrators to answer the questions that they have. For example, the state of California does not collect data using unique student identifiers, thus it is not possible to track student progress over time, limiting the kinds of questions that district administrators in California can ask of their data.

These problems of access and availability are exacerbated by a serious mismatch between the rapid pace of decision-making in districts and the relatively slow process by which research and evaluation findings and, in some cases, test scores are released (Bickel & Cooley, 1985; Corcoran et al., 2001; David, 1981; Englert, Kean, & Scribner, 1977; Kean, 1981, 1983; Massell & Goertz, 2002). For example, in their study of evidence use in three mid-size urban districts, Corcoran and his colleagues (2001) found that even district central office staff inclined to engage in evidence-based decision-making often made decisions about program adoption in the absence of evidence. The district central office administrators reported that they could not wait for evaluation results or pilot studies before acting given intense pressure to respond to pressing needs or the need to appear decisive.

Organizational and political factors that shape availability. The nature and availability of evidence in a given district is influenced by features of the local organizational and political context. At the most basic level, district central office administrators are unable to use data in decision making when they lack the technological infrastructure to access it. Although there has been considerable effort in the last decade to develop the local technical capacity to create adequate access to data, many districts still fall short in this regard (Burch & Thiem, 2004; Reichardt, 2000). But beyond technical infrastructure, access to data and evaluation may also be related to the position of the research office vis a vis central office decision makers. In some districts, the research office is a fairly separate and often marginalized unit (David, 1981; Kennedy, 1982c; Mac Iver & Farley, 2003). In these situations, decision makers may not have access to data or research when they are making decisions, even if the evidence actually exists in another part of the district central office (David, 1981). Access to research depends in part on the available research resources in the local community. Districts vary greatly in both the

presence of universities or independent research organizations in their community and the nature of their connections to these organizations (Fullan, 1980). Finally, in recent years, there have been increased efforts to address issues of availability of high quality research using public policy. The What Works Clearinghouse is one of a number of efforts funded by the federal government to create synthesis of research findings on topics of key interest to educational leaders and disseminate them widely. It will be important to track the extent to which these initiatives influence local districts' access to high quality research that help them address their pressing needs.

Social processes that underlie evidence use: Search and interpretation

Even if the appropriate evidence is available and accessible in a timely manner, district central office personnel must still look for it, notice it, and attend to it--a set of processes that some scholars call "search." How the search process proceeds is crucial because it shapes what evidence is even considered by district personnel. Furthermore, evidence does not speak for itself; district personnel must interpret and make meaning of it in order to use it. Both of these processes--search and interpretation--are influenced by individuals' pre-existing beliefs and experiences. In this section, we review the research on these two social processes that underlie evidence use. We then discuss the organizational and political factors that shape them.

Search. Studies of district central office administrators suggest that their search processes are fairly active and continual, in that district personnel are continually seeking information from a wide range of internal and external sources (Bickel & Cooley, 1985; Corcoran & Rouk, 1985; Honig, 2004c; Kennedy, 1982a). But search can also be unsystematic and shaped in profound ways by pre-existing beliefs and knowledge. Kennedy found that the district administrators in

her study "tended to look indiscriminately at everything that came their way and…could not describe exactly what it was they were looking at" (Kennedy, 1982a, p. 13). Studies consistently show that central office administrators tend to search for and pay greater attention to evidence that resembles what they already know and expect to find (Bickel & Cooley, 1985; David, 1981; Hannaway, 1989; Kennedy, 1982a; Spillane, 2000; West & Rhoton, 1994). This happens at a very subtle level as it influences what administrators even notice as they review data or research studies. Simply put, administrators tend to see aspects of the data or research that support their beliefs, assumptions, and experiences and do not even notice those aspects of the data that might contradict or challenge these beliefs. This phenomenon may be exacerbated during conditions of data overload that many districts are currently experiencing. Under these conditions, administrators, like other decision-makers, tend to narrow the range of evidence to which they pay attention because they simply cannot attend to it all given real limits of their time and attention (Honig, 2003). All of this suggests that rather than evidence leading directly to decision making, it is always mediated by the individual worldviews that shape search.

Interpretation. Once a given piece of evidence has been "found", decision-makers engage in a process through which they decide whether and how to use the information. Spillane and others have referred to this process as "sensemaking" or "interpretation" (Spillane, Reiser, & Reimer, 2002). Sensemaking theorists argue that the meaning of information is not self-evident; rather individuals need to construct their understanding of the meaning and implications of evidence at hand. They do this by fitting new information into their pre-existing understandings or cognitive frameworks (Porac, Thomas, & Baden-Fuller, 1989; Weick, 1995). Kennedy calls these frameworks *working knowledge*, or, "the organized body of knowledge that administrators and policymakers use spontaneously and routinely in the context of their work. It includes the

entire array of beliefs, assumptions, interests, and experiences that influence the behavior of individuals at work" (Kennedy, 1982a, p. 1-2).

Thus, like search, interpretation of evidence is mediated by an individual's beliefs and experiences. In fact, Kennedy (1982a) reports that in her close analysis of instances of decision making in 16 districts, she found no instance where evidence had an independent influence on decision making. Rather, decisions were always influenced by individual and group interpretations of evidence, which in turn was influenced by working knowledge. As with search, this can be a quite subtle process. For example, Kennedy illustrates how working knowledge shapes interpretation by showing how district central office administrators in one district interpreted low rates of college attendance among students as pointing to a need for increased vocational education options. The administrators then used the interpretation—the need for vocational education—rather than the statistics themselves as the basis for subsequent policy decisions. But the influence of working knowledge on interpretation can also be quite stark. Study after study reports that district administrators (and others) tend to discount various forms of evidence when they do not support their pre-existing beliefs (Bickel & Cooley, 1985; Birkeland, Murphy-Graham, & Weiss, 2005; Coburn & Talbert, 2005; David, 1981; Kennedy, 1982b). For example, in her study of the use of Title I evaluations in 15 districts, David found that district administrators consistently discounted evaluations that challenged their perceptions of the programs, questioning their validity, the appropriateness of the methodology and measures, and the degree to which the evaluations measured valued outcomes.

When central office administrators interpret evidence, they also tend to simplify it (Hannaway, 1989; Honig, 2003; Spillane, 2000). Central office administrators rarely receive information in discrete manageable packages. Rather, they face complex single, and sometimes,

multiple pieces of evidence that may be interpreted in a variety of ways, none of which point unambiguously to how to strengthen objective performance outcomes. In such situations, district administrators appear to focus on discrete pieces of information that they understand or believe they understand at the sacrifice of others (Hannaway, 1989; Honig, 2003. See also, March, 1994). Similarly, district central office administrators may break multiple complex pieces of evidence into component parts or otherwise simpler forms (Hannaway, 1989; Honig, 2003).

While some important aspects of evidence may be lost as part of this process, simplification may be an inevitable part of the interpretation process given very real limits of time and attention (Hannaway, 1989). Simplification may in fact enable evidence use because it converts evidence into a form that district central office administrators may actually be able to apprehend and find relevant to their decision-making. In her study of district central office administrators involved in school-community partnerships in Oakland, CA, Honig shows how central office administrators were able and willing to use evidence in these ways when they translated often complex local challenges into discrete, familiar action steps (Honig, 2003, 2004, April).

In sum, evidence based decision-making is sometimes framed as an antidote for ideology-driven decision-making. However, as the research base makes clear, people make decisions precisely by drawing on what might be considered ideology—including their prior knowledge—as a fundamental part of the decision-making process.

Organizational and political factors shaping search and interpretation. Thus far, we have emphasized the ways in which search and interpretation are mediated by individual working knowledge and cognitive capacity. But district administrators are engaging with evidence within a complex organization that is located in a broader and often highly political

environment. These organizational and political contexts create conditions that appear to shape search and interpretation in important ways.

First, the search and interpretation processes are influenced by the organizational structure of the district. Typically, decision making in districts is a profoundly social process. It is highly interactive, involving many people in and across a series of meetings (e.g. task forces, committees, teams) and informal conversations that stretch over time (Hannaway, 1989; Kennedy, 1982a, 1982b; Spillane et al., 2002). The organizational structure of the district--the configuration of subunits and task forces--influences who tends to interact with whom in the course of their daily work. This is significant because people develop shared beliefs and understandings as they interact with one another, including common ways of framing problems, common understandings about the nature of different demands, and common images of particular programs. These shared ways of thinking can subsequently influence both search and interpretation (Coburn & Talbert, 2005; Kennedy, 1982b; Spillane, 1998). For example, in their longitudinal case study of decision-making in one mid-size urban district, Coburn and Talbert (2005) found that individuals in different sub-units in the same district central office had very different understandings about what constituted valid evidence, high quality research, and appropriate evidence use. In the absence of formal structures or a tradition of interaction across units, people in units developed shared understandings that became further and further apart over time. As a result, people in different units interpreted findings on the efficacy of particular instructional approaches (both research findings and performance data from schools) in dramatically different ways. This suggests that organizational structure is likely to shape patterns of interaction in ways that influence how district personnel interpret research evidence and data.

Search is also influenced by political pressures.[2] Decision-making in districts exists in highly politicized and highly changeable environments (Englert et al., 1977; Hannaway, 1993). District central offices have multiple constituencies to serve and multiple layers of governance—above as well as below—to whom they must be responsive. Multiple interest groups inside and outside the district with different stakes and, at times, different values pressure district administrators to make particular decisions. These political pressures appear to play an important role in search processes as the very decision to seek further evidence or commission an evaluation study can emerge from political motivations (Englert et al., 1977). But political processes also shape search in a more subtle way. Shifts in political circumstances often bring new issues to the fore, changing perceptions about what is important to pay attention to (Kennedy, 1982b). As new issues become salient, district administrators notice and attend to different sources of information. For example, Kennedy (1982b) recounts how political controversy relating to personnel matters brought a longstanding program to the attention to district staff in one of the districts in her study. In the course of addressing the personnel issue, staff noticed and attended to previously "dormant" evidence. Thus, political processes shifted notions of what was important to pay attention to, which in turn raised the profile of certain kinds of evidence and not others.

Role of evidence in decision making

We have just discussed the micro-processes that underlie evidence use and the political and organizational factors that shape how these processes unfold. Here, we take a step back and look at the overall role that evidence plays in how central office administrators make decisions. We organize our discussion by drawing on categories that have been developed by scholars of

evaluation use over the last two decades. These scholars typically identify four roles that evidence plays in decision making: instrumental role, conceptual role, symbolic role, and no role (see Bickel & Cooley, 1985; Weiss & Bucuvalas 1980; Weiss, Murphy-Graham, & Birkeland, 2005). Recent work by Carol Weiss and her colleagues (Weiss et al., 2005) argues that new demands by the federal government that districts adopt programs that are certified to be rooted in scientifically-based research has created a new role for evidence: a sanctioning role.[3] Here, we use these categories to analyze the research on how district central office administrators use evidence in their decision making. We then discuss how political and organizational conditions influence how and when district administrators use evidence in one manner rather than another.

Instrumental role. When policy makers exhort districts to use evidence in their decision making, they often seem to envision that evidence will play an instrumental role (Honig & Coburn, under review). That is, they imagine that district administrators will use evidence directly and centrally to provide guidance to decisions related to policy or practice (Weiss, 1980; Weiss et al., 2005). Weiss describes the image of instrumental use in the following way: "A problem exists; information or understanding is lacking either to generate a solution to the problem or to select among alternative solutions; research [or other forms of evidence] provides the missing knowledge; a solution is reached" (Weiss, 1980, pp. 11-12).

However, our review of research suggests that it is not common for evidence to play such a role. In Kennedy's in-depth analysis of 14 decisions made by central office administrators in 16 districts, only two decisions appear to have been made by using data or evaluation research to directly inform decisions. Similarly, David's analysis of 35 decisions related to Title I in 15 districts found that only one quarter of these decisions involved the use of evaluation data to make changes in their programs and most of those changes were relatively minor (1981). In

their study of the role of overwhelmingly negative evaluations of the drug abuse prevention program D.A.R.E., Weiss and her colleagues identified only 3 out of 16 districts that used the results of the evaluation in an instrumental fashion, closing down their programs specifically in response to the negative evaluations. However, even in these instances, the influence was not always direct as it was often long-delayed and diluted (Birkeland, et al., 2005; Weiss et al., 2005). Finally, Corcoran and his colleagues (2001) found that only one of three districts in their study were able to institute structures and procedures such that they could draw on research evidence in their decisions about curriculum or program adoption.

It is important to note that even when evidence does play an instrumental role in decision making, the interpretive processes described earlier are still at play. For example, Kennedy reports that the two decisions in her study where evidence was used instrumentally involved what she described as "rather creative interpretation of the evidence" (p. 96). Furthermore, evidence is rarely the sole factor that central office administrators consider when making a decision in this manner. They also consider budgetary issues, political issues, and administrative issues alongside of the evidence use. Thus, there is not a one-to-one relationship between evidence and decision, even in situations where evidence seems to play an instrumental role (David, 1981; Weiss et al., 2005).

Conceptual role. To say that evidence is rarely used in an instrumental fashion in decision making is not to say it is not used at all. Research outside of education suggests that in fact the most common role that evidence plays in policy making is what Weiss calls conceptual use. That is, interaction with evidence provides decision makers with new ideas, new concepts, or new generalizations that influence how they view the nature of the problem (Weiss, 1980;

Weiss et al., 2005). Thus, evidence plays a role in influencing individual and shared working knowledge, even when it does not influence a specific decision.

It is difficult to ascertain the frequency with which evidence plays a conceptual role in decision making because most studies of evidence use at the district level have not paid attention to it. However, we have hints about its importance in the few studies that do attend to this phenomenon. In their survey of 40 superintendents, deputy superintendents, and assistant superintendents in Delaware, Fillos and Bailey (1978) report that 78 percent of these individuals report that evidence typically provides general background information on various issues, rather than guiding particular decisions (Fillos & Bailey, 1978). Weiss and her colleagues report even more dramatic findings in their study of school district responses to negative evaluations of the D.A.R.E. program. They argue 15 of 16 districts showed evidence of conceptual use of D.A.R.E. evaluations in that extensive media coverage of the evaluations caused individuals in districts to develop a sense of the approach as ineffective. Thus, the evaluation studies (through the widespread media coverage of their findings) influenced how people thought about the program, even in cases where it did not directly influence a decision in the short term. Sometimes, the manner in which researchers conceptualize their studies – rather than the findings themselves – can play a role in how administrators think about their work and the issues at hand. In this case, research provides a fresh perspective on long-standing problems or a new language for communicating about experienced but unarticulated patterns of practice (Silver, 1990).

Conceptual use of evidence is potentially a powerful way for research and data to become a part of on-going district practice. If, as we have suggested, evidence is always mediated by individuals' working knowledge, then a key way to influence decision making is to influence the

working knowledge of those who are involved in the decision making process. Yet, policy makers and indeed many researchers rarely acknowledge this role for evidence at all, which potentially leads to an underestimation of the degree to which evidence actually plays a role in district central offices (Weiss, 1980; Weiss & Bucuvalas, 1980) and a lack of attention to potential avenues for encouraging an role of evidence, so defined.

Symbolic role. District central office administrators also use research and data to justify pre-existing preferences or action. Weiss refers to this usage as *symbolic* because the main function of the evidence is to create legitimacy for solutions that are already favored or even enacted (Weiss, 1980; Weiss et al., 2005). There is a great deal of evidence in the studies we reviewed that evidence plays this role in central office administrators' decision making (Corcoran et al., 2001; David, 1981; Kennedy, 1982b; Manheimer, 1995; Robinson, 1988; Weiss et al., 2005). For example, in one descriptive account, Robinson described how central office administrators used social science research in school board presentations to influence school board opinions, even when that research was not used directly to inform the development, selection, or implementation of those programs (Robinson, 1988). Kennedy (1982b) reports that evidence was used to justify decisions that were already made in 7 out of the 14 decisions in her study. Weiss and her colleagues (Weiss et al., 2005) document symbolic use of research in 4 out of 16 districts. Finally, Corcoran and colleagues found symbolic use to be widespread in the three districts in their study. They describe as a typical pattern: "The champions of specific reforms typically examined literature selectively and found theories and 'evidence' to justify their approaches, or they recruited 'experts' who were advocates of the preferred strategy" (Corcoran et al., 2001, p. 80).

Although it may be less intuitive, symbolic use may facilitate other, more substantive forms of evidence use. Because decision making in districts is often a profoundly social process, it is enabled by the development of shared understandings and common ways of framing the problem. District decision makers may use evidence symbolically to generate such shared understandings (see, for example, Robinson 1988 and Manheimer 1995). Furthermore, symbolic use may be necessary feature of moving improvement agendas forward in the complex political environment that come with being a public institution as research-based decisions can backfire without adequate attention to political considerations in the environment (Englert et al., 1977; Massell, 2001). For example, Massell and Goertz (2002) report an instance where district staff adopt a research-based curriculum without considering or planning for the potential opposition among the teaching staff and communities. When the test scores declined in the first year (a predictable dip for a new and challenging curricula), individuals who were opposed to the adoption of the curriculum subsequently used the dip to organize opposition to the curriculum, eventually causing the district to stop using it. Massell and Goertz argue that greater attention to political realities might have led to different decision or different approach to implementation.

Sanctioning role. Given increased federal and state requirements that school districts use programs that have particular kinds of research evidence, we may see an increased incidence of districts adopting policies or practices solely because the programs meet this mandate (Weiss et al., 2005). Evidence plays an interesting role in this process. Typically, research and evidence is not reviewed by district decision makers themselves. Rather, individuals at the state or federal level review available evidence on program effectiveness and use it to create lists of programs that are deemed "research-based" and thus approved for use with state or federal funds. Districts personnel choose programs from these lists in order to receive federal or state funding.[4] We call

this new role for evidence *sanctioning*. In their study of 16 school districts, Weiss and her colleagues (2005) identified two districts where evidence played a sanctioning role in the decision to drop D.A.R.E. These districts dropped D.A.R.E. and selected other programs not because they believed negative evaluation findings on D.A.R.E, but because these other programs were on the list of approved programs and the D.A.R.E. program was not. Thus, evidence was used to sanction some choices and not others, which shaped district decisions about program adoption.

It is important to note that in this scenario, evidence has only limited opportunity to influence district administrators' working knowledge because district personnel do not actually read or review the evidence themselves (relying instead on those who have created the lists). Indeed in Weiss' study, several districts adopted programs that they did not particularly support solely as a way to maintain their federal funding, suggesting that the act of picking a program from a list did little to shape their view of the problem or appropriate solutions.

No role. Finally, there is also quite a bit of evidence that districts often make decisions without reference to research, evaluation findings, or systematic data (Birkeland et al., 2005; Corcoran et al., 2001; David, 1981; Kennedy, 1982b; Massell, 2001). In David's analysis of 35 decisions about Title I programs, 25 percent of all decisions were made on the basis of political or financial concerns alone. An additional third of the decisions were based on what David calls "subjective information," which she defines as impressions or anecdotal information. Thus, evaluation findings played no role in well over half of the 35 decisions in the study (David, 1981). Kennedy (1982b) reports that five out of fourteen decisions were made without any reference to research or systematic data. Similarly, in their exploration of why six districts continued to use the D.A.R. E. program in spite of uniformly negative evaluations, Birkeland and

her colleagues (2005) found that individuals in these districts dismissed the evaluation, either because they thought the evaluations measured the wrong outcomes or they had anecdotal information that suggested that the program was working in their district. Thus, their decision to continue to use the D.A.R.E. program was based on other considerations than the results of the evaluation studies. Finally, Corcoran and his colleagues (2001) suggest that the degree to which district personnel use research or data in their decision making may be related to the kind of decision they are making. In his study of three districts, one out of three used such evidence in curriculum adoption, all three used it in evaluating internal initiatives, but none used research evidence or data while making decisions about professional development.

Organizational and political factors shaping the role of evidence. When and under what conditions do school district personnel use evidence in one manner versus another? At least three factors seem to play a role: political pressures, organizational capacity, and, increasingly, public policy.

As discussed earlier, decision-making in district central offices unfolds in highly politicized environments. Political pressures sometimes push district administrators away from using evidence altogether (no role) as district staff sometimes make decisions that contradict evidence in order to be responsive to these political realities (Corcoran et al., 2001; David, 1981; Massell & Goertz, 2002). Thus, even if individuals in the district interpret the evidence in ways that support particular action, they may not feel able to take such action given prevailing political situation. District staff may also respond to political pressure by using evidence in a symbolic manner as a way to bolster the legitimacy of their position (Corcoran et al., 2001; Englert et al., 1977; Hannaway, 1989; Kennedy, 1982a, 1982b; Weiss, 1980) or generate buy-in for a course of action (Manheimer, 1995; Robinson, 1988).

Interestingly, advocates of research-based programs and evidence-based decision-making often position their use as an antidote to overly politicized and ideological decision-making on the part of school and district leaders (Slavin, 1989; Massell, 2001). Yet, it appears that rather than taking decision-making out of the realm of politics, research and evidence can become further tools in the very political processes they are meant to circumvent.

Organizational capacity also influences how district personnel use evidence in their decision making. Calls for evidence-based decision-making ask district central office administrators to play new and sometimes unfamiliar roles. Demands to use data as part of accountability requirements, for example, require a shift in orientation from collecting data for compliance reporting to the government (using evidence in a symbolic manner) to collecting data and making it accessible to inform on-going decision-making (instrumental role) (David, 1981). Evidence use also requires research literacy and skills at data analysis and interpretation (Corcoran et al., 2001; Mac Iver & Farley, 2003). However, many districts appear to lack these capacities, which frustrates their attempts to use evidence in decision making (Burch & Thiem, 2004; Corcoran et al., 2001; David, 1981; Honig, 2003, 2004; Mac Iver & Farley, 2003; Reichardt, 2000).

District personnel also seem more likely to use evidence in instrumental or conceptual ways when district culture and norms encourage it (Corcoran et al., 2001; Honig, 2003; Massell, 2001; Roberts & Smith, 1982). For example, in their study of three district central offices, Corcoran and his colleagues (2001) found that evidence use was greater in district central offices and subunits within district central offices where norms, expectations, and routines supported on-going engagement with empirical research. Conversely, they show that evidence played little

role in decision making in district central office subunits that did not maintain such norms and expectations.

Finally, public policy appears to be increasingly influential in raising the profile of data and research in school districts. Multiple studies report a greater role for data at the central office level in the wake of high stakes accountability policies (Burch & Thiem, 2004; Kerr, Marsh, Ikemoto, Darilek & Barney, under review; Massell, 2001; Reichardt, 2000). For example, Massell (2001) reports that since passage of state accountability policies in the mid 1990s, the majority of the 23 school districts in her study had begun to use student performance data as a regular part of decision-making, at least in some of the ways discussed above. Similarly, as discussed above, requirements that tie federal funds to programs that are identified as "research-based" appears to have increased the adoption of those programs (Datnow, Hubbard, & Mehan, 2002; Weiss et al., 2005), if not the direct use of evidence in making the selection.

However, policy that encourages data use or the use of "scientifically-based" research does not guarantee that districts will use research and data in instrumental or conceptual ways. For example, early studies of evaluation use showed that federal mandates to participate in Title 1 evaluations greatly increased the number of evaluations that district central offices conducted but did not increase the degree to which districts actually used those evaluations to inform program improvement (David, 1981). Similarly, in their longitudinal case study of one district's attempts to foster evidence-based practice, Coburn and her colleagues (in preparation) found that increased policy pressure to use research in decision making led to increased symbolic use rather than increased instrumental use of social science research. District administrators increasingly used the language of research ("research says…") to justify their pre-existing positions rather than actually reviewing and drawing on findings in their decision making.

Public policy seems to foster instrumental and conceptual use only to the degree that it helps build or reinforce the capacity for central office administrators to use data and research in this manner (Kerr et al., under review; Massell, 2001). For example, Massell (2001) found that districts were more likely to respond to accountability policy by using data in substantive rather than symbolic ways when they had local norms that supported instrumental use, including a philosophy that saw data as a key lever for system improvement. Absent such capacity, it appears likely that districts respond to calls for evidence use in uneven, symbolic, or superficial ways (Coburn, Toure, & Yamashita, in preparation; David, 1981; Massell, 2001) or fall back on old patterns of engaging with data and research that work against evidence use (Honig, 2003, 2004, April). The question, of course, is how policy can build this capacity in places where it does not exist.

Lessons for Encouraging Evidence Use at the District Level

Given what we know about the complexity of the evidence use process and the factors that shape it, what steps can be taken to help school district central offices enhance their use of various forms of evidence in their decision-making with the goal of helping improve their performance? Our review suggests several answers.

Lesson 1: Collaboration with external organizations can facilitate access to the "right" evidence

Earlier, we discussed the challenges that districts face in accessing, noticing, and otherwise obtaining research and data. Collaboration with external organizations and researchers can help facilitate this access. These connections can be a particularly effective means of accessing information and interpreting it in ways that meet local district needs (Corcoran &

Rouk, 1985; Kerr et al., under review; Spillane & Thompson, 1997). They also can provide schools and districts access to social science research, research-based practice, and practices for gathering and analyzing local data (Corcoran & Rouk, 1985; Kerr et al., under review; Spillane & Thompson, 1997). These organizations often have credibility with school and district personnel because they are able to integrate research knowledge with an awareness of local needs and conditions, thus supporting its effective use (Corcoran & Rouk, 1985; Spillane & Thompson, 1997).

Collaborations with researchers can also mitigate some of the challenges of access and relevance. When researchers and district personnel collaborate to design research and evaluation studies, it is more likely that the research will address issues that are relevant to the district (Bickel & Cooley, 1985; Kean, 1980,1981; Roberts & Smith, 1982). On-going conversation about findings between researchers and key stakeholders can also bring research to decision-makers' attention (Kean, 1980, 1983) and provide opportunities for researchers to help create links between findings and district personnel's pre-existing beliefs and understandings (Bickel & Cooley, 1985). For example, Bickel and Cooley (1985) describe how their long-term research partnership with a large urban school district led to these outcomes. Because they involved top-level district leaders in decisions about the focus and design of the study, these officials were more likely to pay close attention to the findings. They also engaged in in-depth discussions about the findings with individuals at multiple levels of the central office over the course of the project. These conversations provided the opportunity for the researchers to check their interpretations, but also to learn how to frame findings such that they were meaningful to the people in the district. As the result of their efforts, the researchers report that their findings played a key role in policy making in the district.

Lesson 2: Districts can develop structures or processes to fund and support search

Another way to ensure that districts access the evidence that they need for the particular decisions with which they are faced is to take deliberate steps to support the search process. As we discussed earlier, search processes in central offices are typically active and continuous, but can be quite unsystematic as district personnel look at whatever crosses their desk, tending to notice only those things that confirm their pre-existing beliefs. Two strategies for deliberately supporting search emerged in our review of the literature. First, districts may be able to lessen the degree of haphazardness and the overall intensiveness of the search process by designating particular people to be responsible for search. Honig (2003, 2004a, 2004c) reports on one district's use of this approach. This district designated specific central office administrators to specialize in search who spent a majority of their workday with their evidence sources—school and community leaders— to gather information about implementation progress. This division of labor among staff seemed to enable search by making search a regular responsibility of particular individuals who had the skills, inclinations, and resources that spanning organizational boundaries to collect information requires.

Second, districts can enable search by creating structured protocols to guide the process. Learning Walks, promoted by the Institute for Learning, are one example of such a protocol. Learning Walks involve district administrators and school level leaders in structured observations of multiple classrooms to collect evidence about teaching practice and student learning. These walks are guided by observational protocols and rubrics and district staff are encouraged to use the data they collect to inform decision making about instruction and professional development at the school and district level (Kerr et al., under review; Marsh et al.,

2005). Research suggests that such standardized protocols for data gathering work best when there is a clear, coherent, well-articulated and shared vision across the district regarding what good instruction looks like to guide how people involved in learning walks interpret the evidence they collect (Stein, D'Amico & Israel, 1999). That is, learning walks and other search strategies may be most effective when they function as tools to develop and sustain shared understandings of high quality practice.

Lesson 3: Foster conditions for collective interpretation

Individual and collective interpretation is at the heart of evidence use in school districts. While interpretation--and the central role of pre-existing beliefs and understandings in shaping it--may be a fundamental part of the evidence use process, it seems possible that districts could create conditions that mitigate the tendency to discount evidence that contradicts pre-existing beliefs and working knowledge. The question is: when and under what conditions can research and other forms of evidence be used in ways that help people question their assumptions and challenge their frames rather than just to provide a means to reinforce pre-existing ways of doing things? How can districts foster these conditions? We know of no research that addresses this question at the district level, but research on evidence use in schools is instructive. This work suggests that teachers are more likely to engage with new information in ways that causes them to question their assumptions when they engage with information in social interaction. Social interaction can foster greater access to expertise that exists within the system (Spillane, 1999; Spillane & Thompson, 1997). Furthermore, especially when it involves diverse points of view, social interaction around evidence requires participants to negotiate among and between diverse interpretations, which can surface assumptions and contribute to the development of shared

understandings that move beyond individual ways of thinking. This process is more likely to push people to rethink their frames when there is adequate time to delve deeply into the meaning and implications of the evidence and structured protocols for looking at evidence that help people work through conflicts in interpretation (Coburn, 2001).

Structuring such conditions at the central office may prove challenging, given limited time and the complex organizational structure of school districts. District leaders must be able to create adequate time and focus for administrators to engage in the collective interpretation of evidence. Without adequate time to sift through and interpret evidence, this activity is likely to get swallowed up in the multiple time commitments and priorities and deluge of information that characterize district administrators' work. District leaders must also consider how to organize and otherwise convene their staff around evidence in ways that are likely to increase its use. The fact that district decision-making is often stretched across multiple workgroups or subunits poses something of a dilemma for district leaders. On the one hand, these subunits support evidence use by providing ongoing opportunities for people to gather and interpret various forms of information and to build a community culture favorable to evidence use. Such group processes sometimes increase the expertise brought to bear on the evidence at hand and build trust among district staff essential for exploring new possibilities. On the flipside, workgroups can become cut off from the rest of the central office in ways that limit the expertise brought to bear on particular decisions and that foster the development of quite different interpretations of the meaning and implications of common evidence. Particularly troubling is the tendency for the district research office to be cut off from decision makers in other areas of the district. This suggests that central office leaders must think carefully about how to convene key actors from

different areas of the district to engage in conversation about the meaning and implication of research and data related to pressing district issues and needs.

Lesson 4: Develop political support for evidence use

Like interpretation, politics may be an inescapable part of decision making in public organizations (Englert et al., 1977). The question for those concerned with fostering evidence use is how to create conditions for on-going and substantive evidence use in highly politicized and highly changeable environments? One possible answer is to create political support both for evidence use itself and for jointly developed interpretations and action steps. Marsh (2002) studied two mid-sized California school districts that attempted to build political support for evidence use. These districts convened community-wide planning groups to examine and help interpret student performance data and to share their own evidence about the need for district-wide improvement and strategies for achieving it. In these school-community dialogues, district central office administrators drew on student performance data as well as parent/community input to both craft a districtwide improvement agenda and community and professional support for that agenda. Marsh shows how the high levels of trust between district central office administrators and community residents developed through this process helped to increase the availability of various forms of evidence, including community feedback, and marshaled political support essential to certain district central office decisions.

Lesson 5: Develop new strategies for building central office capacity for evidence use

If, as we have argued, capacity is key to fostering sustained and systematic evidence use at the central office, the key question is how to foster the development of capacity in districts

where it does not yet exist. Existing research offers only limited answers to this question. Case studies of school districts that appear to use data in a consistent manner report that these districts invest in professional development on data use for individuals throughout the system, including those at the central office level (for example, Snipes, Doolittle, & Herlihy, 2002). However, these studies do not specify what this professional development might entail, nor do they actually evaluate it.

Our analysis of the social processes underlying evidence use provides some initial guidance for areas on which to focus capacity building efforts. It suggests a central focus on interpreting and making meaning of various forms of evidence. This interpretation process is likely enabled with greater research literacy, including the ability to critically evaluate research studies, analyze and interpret relevant data, and draw implications of for policy and practice. It is also likely enabled by content knowledge in the area that is the focus of decision-making (Stein & Nelson, 2004). Given the social nature of decision making, district personnel also need to develop the ability to access expertise within and outside the district and to bring it to bear on decisions at hand. And they need the ability to develop structures and protocols that bring diverse individuals together to jointly negotiate shared understandings of the meaning and implications of the evidence.

Using evidence in the ways we highlight requires profound shifts in the basic nature of central office administration-as-usual. Our portrait suggests a model of central office administration that moves beyond standardization of practice to a more dynamic model of central office administrators as problem-solvers in complex and sometimes ambiguous contexts. Central office staff administrators need new models of professional practice that include evidence use as part of their day-to-day routines. And they need very different supports to take risks inherent in

the endeavor. Ultimately, as Davies (2004) argues, in order for evidence to be used in an ongoing and substantive way, these capacities need to be integrated into notions of professional competence for district level personnel.

Final Thoughts

In recent years, educational policy has created new pressures and incentives for districts to use evidence to assess their policies and practices and to adopt improvement strategies rooted in research. Yet, these policies seem to be premised on a vision of evidence-based decision making that assumes a direct, linear relationship between the evidence and a decision that will improve educational outcomes. In contrast, the portrait of district central office evidence use that emerges in the research literature is much more complex, political, and nuanced than that suggested in policy designs. This portrait suggests that there are considerable challenges to providing districts with relevant evidence in the forms and timelines that they need it. And even if the appropriate evidence is available, the degree to which district administrators access it is shaped by the nature of their search processes. The available research also suggests that evidence, once noticed, is likely to play a range of roles that stretch far beyond the instrumental role envisioned by policy makers, and that some of these additional roles may indeed be productive and thus should be encouraged. At the core of evidence use are interpretive processes whereby individuals and groups make meaning of evidence in ways that are profoundly shaped by their pre-existing beliefs and practices and day-to-day limits on how they direct their attention. Finally, all of these processes are influenced by the structure and organization of district central offices as workplaces and the pressures and priorities in the environment.

As we begin to craft second-generation policies to encourage and support on-going evidence use at the district level, we must begin to design policy strategies in ways that are rooted in research-informed understanding of the nature of decision-making in central offices. This suggests moving beyond a focus on creating greater availability of high quality research, to also focusing on supporting the development of district capacity to effectively engage in search activities so that district personnel attend to and access this research. The availability of appropriate research is a necessary but not sufficient condition for getting research into the hands of central office decision makers. It also suggests moving beyond incentives and mandates for evidence use to strategies that support the capacity of district central office administrators to engage with evidence in ways that influence their working knowledge and ability to effectively problem solve. Finally, it suggests crafting policy supports that help districts foster organizational and political conditions that are more conducive to substantive and on-going evidence use.

Ultimately, unless policy makers, district leaders, and researchers find ways to impact some of the deeper processes involved in evidence use at the district level, it seems likely that the movement for evidence based decision-making, like so many others, will be taken up in substantive ways only by those districts with existing capacity and compatible cultures. We need new policy strategies carefully targeted towards key capacities and organizational conditions in order to move beyond the level of "policy talk" (Tyack & Cuban, 1995) to foster substantive and sustained evidence-based practices at the central offices in more than a handful of districts.

Endnotes

[1] More specifically, we searched the ERIC database by combining the search terms "central office", "district", and "superintendent" with "data-based", "data-driven", "decision maker", "data management", "decision making", "knowledge utilization", "policy making", "research utilization", "policy making", "research", "research-based", and "working knowledge". We also searched ERIC for names of researchers known for addressing evidence use and decision-making in school district central offices and other public bureaucracies. Our initial searches surfaced 3,689 documents. We reviewed abstracts for all these documents and ultimately selected 120 articles and books that were related to evidence use in district central offices. From the references lists of these pieces, we identified an additional 22 articles, books, and dissertations. We then searched the program of the American Educational Research Association conference for 2004 and 2005 to ensure that we captured the most recent research in this area. This search netted 9 additional articles, bringing the grand total of pieces to review to 151. A significant percentage of these pieces were either advocacy pieces (arguing why districts *should* use research or data) or how-to pieces (providing step-by-step instructions for using research or data). While important, these pieces did not promise to help us understand the empirical base on how district central offices may actually use evidence. After excluding those pieces we ended up with the 52 pieces that form the basis of this review.

[2] It is possible to imagine ways that political pressures could influence the interpretation process as well. For example, it is possible to imagine that some voices would carry more weight in the social processes by which interpretation unfolds in groups. But, while there is evidence that political processes shape interpretation at the school level (Coburn, under review), there is no research that investigates or illuminates this issue at the district central office level.

[3] Weiss and her colleagues (2005) put forth a new category of evidence use, which they term *imposed use*. However, in this paper we are focusing on different roles of evidence in the decision-making process rather than categories of use. The role of evidence in imposed use appears to be sanctioning the programs that district administrators are required to adopt. Thus, we use the term sanctioning rather than imposed use.

[4] Districts may also use this approach with schools. That is, districts may create lists of programs that are approved for use on the basis of the strength of the evidence of their effectiveness. Here, we focus mainly on how districts respond when higher levels of government create such lists, not how schools respond when districts use this approach.

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