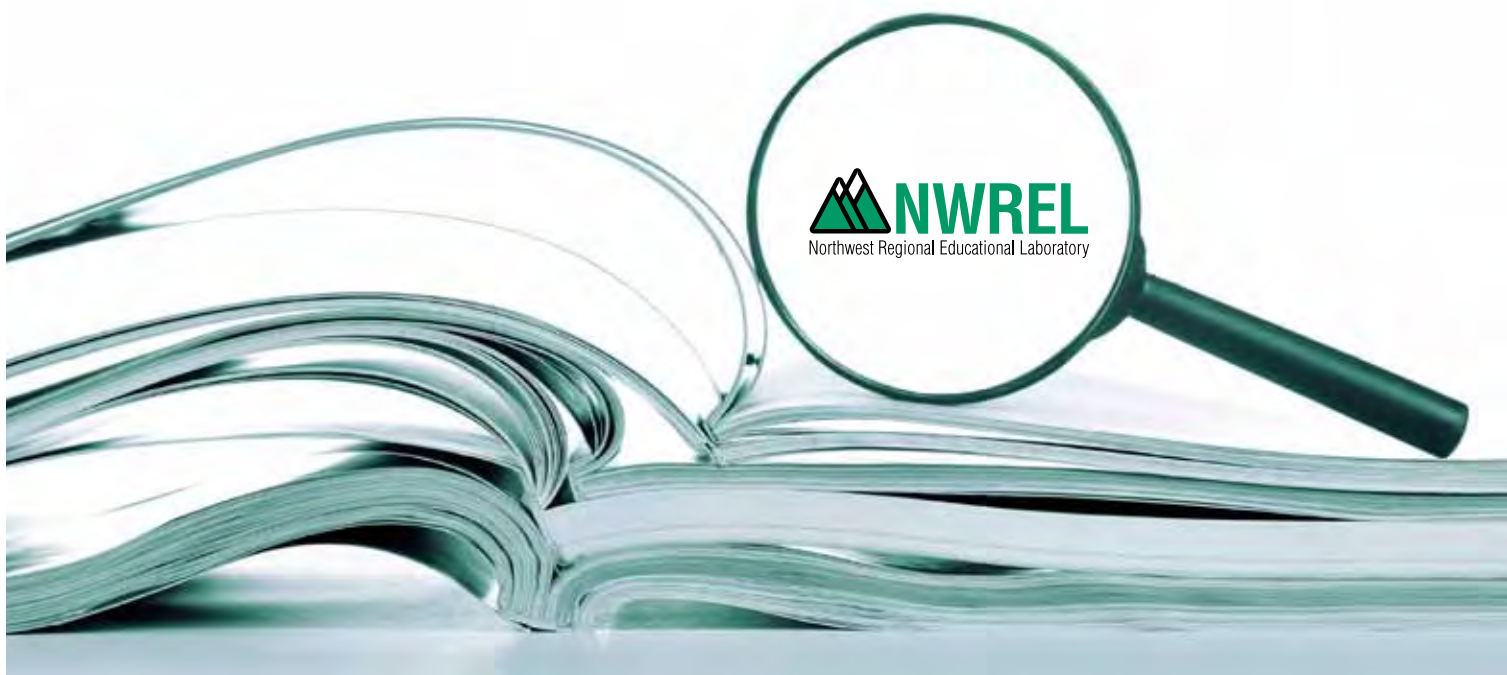


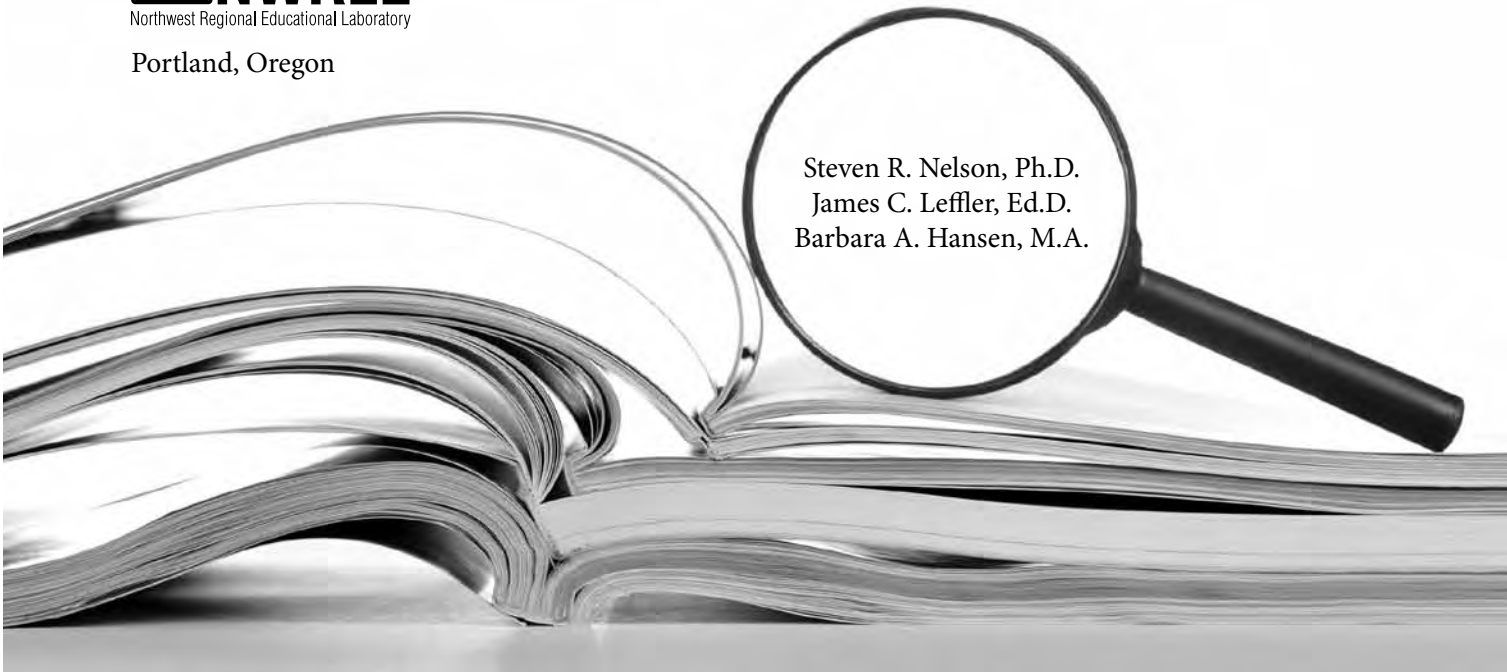
Toward a Research Agenda for Understanding and Improving the Use of Research Evidence



Toward a Research Agenda for Understanding and Improving the Use of Research Evidence



Portland, Oregon



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Executive Summary

Many researchers and research funders want their work to be influential in educational policy and practice, but there is little systematic understanding of how policymakers and practitioners use research evidence, much less how they acquire or interpret it. By understanding what *does* shape policymakers' and practitioners' decision making and the role of research evidence in those decisions, the research community may be able to improve the likelihood that their work will be used to directly inform policy and practice.

This study sought to contribute to that goal by helping to identify when, how, and under what conditions research evidence is used by policymakers and practitioners; what other sources of information these individuals rely on; and what factors serve as barriers or facilitators to using research evidence in making policy and practice decisions. In shedding light on those topics, we hoped to uncover promising areas for future investigation by researchers.

Among our findings, one of particular importance to researchers stood out: In our study policymakers and practitioners did not mention research evidence as often, nor discuss it as strongly, as other sources of information. Study participants expressed skepticism about research evidence (empirical findings derived from systematic methods and analyses) and noted its limitations. While almost all participants stated that research evidence plays a part in policy and practice decisions, they rarely identified it as a primary factor. Rather, most study participants responded that research evidence played a more indirect or secondary role. Other findings are described later in this summary.

The study was conducted in fall 2008 through spring 2009 by the Northwest Regional Educational Laboratory, in collaboration with the Center for Knowledge Use in Education and with the support of the William T. Grant Foundation. The research team used a combination of structured focus groups and individual interviews to elicit comments from a limited, self-selected sample of 65 influential leaders in the areas of policy and practice. Participants represented six groups of federal, state, and local educational interests. These included congressional staff members, deputy state commissioners of education, state education committee legislators, school board trustees, school district superintendents, and school district staff such as central office personnel, building principals, and teachers.

Specifically, study participants shared their insights into the following questions:

1. What factors influence change in educational policy and practice?
2. What evidence is used to inform educational policy and practice?
3. What are barriers to using research evidence in educational decision making?
4. What facilitates using research evidence in educational decision making?
5. What sources of research evidence are used in educational decision making?

With regard to the first question on what influences change in policy and practice, study participants noted factors that both facilitate *and* impede change, as well as factors that serve as strong facilitators *or* strong barriers. Study participants asserted that political perspectives, public sentiment, potential legal pitfalls, economic considerations, pressure from the media, and the welfare of individuals all take precedence over research evidence in influencing decisions. In focus groups and interviews, participants did not mention any “breakthrough research” nor did they cite any findings that they felt had a dramatic effect on practice or policy. The study participants believe that there is a gulf between research design and real-world practice, and that research findings have limited applicability to their local contexts.

In the discussions of what evidence is used to inform policy and practice, one finding that emerged is that policymakers and practitioners regard evidence as a key factor in decision making, but they take a more pragmatic approach to acquiring and using it. They define evidence broadly as local research, local data, personal experience, information from personal communications, gut instinct or intuition, and the experience of others, in addition to research evidence. In fact, focus group members and interviewees did not draw a distinction between research evidence and general evidence derived from these other sources.

In discussing the barriers encountered when using research evidence, participants focused on both the research itself and on the abilities of research users. For example, study participants often acknowledged their own lack of sophistication in acquiring, interpreting, and applying research. They also cited obstacles such as time constraints, the volume of research evidence available, the format in which it is presented, and the difficulty in applying research evidence to their own situations.

Our findings suggest that barriers to the use of research evidence are linked to an underlying belief that much research is not to be trusted or is, at least, severely limited in its potential applicability. Even with studies that meet “gold standard” criteria, participants were aware that a narrowly designed study could report a false success or a false failure. It was a common perception of the study participants that research could be shaped to say anything, that one piece of research often conflicts with another, and that much research is not timely for users’ needs.

While some factors may impede the use of research evidence, other factors may facilitate it. For this discussion, participants were asked about the characteristics of the research and issues that may prompt them to use research evidence in their educational decisions. Both policymakers and practitioners expressed a preference for brief reports (no more than one to two pages), in a larger font, and written in nontechnical language. They also identified a need for research that is locally relevant and credible, includes case studies, and offers analysis across multiple studies.

Indeed, the preference for research evidence that links to their local context was the strongest need identified by all study groups. Participants also expressed a desire for research evidence that considers how interventions impact an entire system and whether such interventions are sustainable over the long term, as well as evidence that takes into account the local political environment.

When asked to identify the specific sources they turn to when acquiring research evidence, study participants acknowledged that they use scholarly research journals and published research reports. However, they admitted to relying more heavily on other sources such as popular publications, conferences, professional and research organizations, and peers.

While not originally intended to be a focus of the study, one factor that emerged as a central feature to the research utilization process was the role of intermediaries. Throughout our focus group discussions and interviews, participants repeatedly referred to their reliance on intermediaries, who were described as unbiased organizations and individuals that can help locate, sort, and prioritize the available research. Intermediaries include research institutions, professional organizations, partners, coalitions, networks, peers, and constituents. Within these intermediary organizations, policymakers and practitioners appear to have a special relationship with small groups of “trusted individuals,” who are valued as credible, objective sources of information. From the responses we heard, it appears that intermediaries are in a prime position to help users aggregate, translate, and apply research evidence directly to specific, local issues.

When comparing the needs of policymakers and practitioners, there appear to be few differences. Both groups use a broad base of evidence that spans a continuum from hearsay to experiments. To fully inform their decision making, users must be able to understand how the evidence applies to the local context.

The insights uncovered in this exploratory study reflect the practices and opinions of a small number of individuals. While the study should be viewed as limited in scope, it yields fertile ground for further investigation by researchers and their sponsors. Some areas for further study include:

- Identifying how research questions might take into account common facilitators and barriers to change in educational policy and practice
- Investigating specifically how intermediaries work with policymakers and practitioners in translating and disseminating research evidence
- Examining how researchers and intermediaries can collaborate so that research evidence is more easily accessed, understood, and applied by end users
- Uncovering ways researchers can report their findings so that they are more easily consumed by policymakers and practitioners

Contents

| | |
|--|------|
| Acknowledgments..... | viii |
| I. Introduction..... | 1 |
| A. Purpose of the Study..... | 1 |
| B. Methodology..... | 3 |
| C. Limitations..... | 5 |
| II. Study Findings..... | 6 |
| A. Factors Influencing Change in Educational Policy and Practice..... | 6 |
| B. Types of Evidence Used To Inform Educational Policy and Practice..... | 17 |
| C. Barriers to Use of Research Evidence..... | 24 |
| D. Facilitators of Using Research Evidence..... | 31 |
| E. Sources of Research Evidence..... | 38 |
| F. The Role of Intermediaries in Using Research Evidence..... | 46 |
| III. Summary and Suggested Questions for Future Research..... | 50 |
| References..... | 53 |
| Appendices | |
| Appendix A: Summary of Group Demographics..... | 62 |
| Appendix B: Focus Group Questioning Guides..... | 64 |
| Appendix C: Sources of Evidence Cited by Participants..... | 68 |

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I. Introduction

“Burden of proof” is a convention of English common law that requires compelling and persuasive evidence be presented to substantiate a claim. While this convention is primarily used to uphold the law, it is no less important in formulating policy and deliberating on judgments. One important form of evidence is research evidence, which is defined as empirical findings derived from systematic methods and analyses. There is a long-standing link between research evidence and policy, between science and the law. The Magnuson-Stevens Act of 1976 created an even stronger bond between research evidence and policy by requiring that “conservation and management measures shall be based upon the best scientific information available” (Title 111, Sec. 301[a][2]). This regulatory requirement established judicial principles for linking research to policy in two very important ways. First, policymakers are compelled to use *all of the relevant scientific evidence* available at a given point, and second, policymakers are *compelled to take action* on the basis of uncertain information that is the best available at the time. These two principles capture the essence of the relationship between research and practice—to know and to do.

How is research evidence weighed against other forms of evidence? Objective proof from the best available science is only part of the equation. Social, political, and economic considerations also inform the decision-making process. This is particularly true because policymakers have a moral duty to protect public interests by minimizing risk, ensuring personal freedoms, promoting the common good, and upholding equitable protections under the law. Clearly, the formulation of policy is a balancing act among what is right, what is known, what is desired, and what is possible.

The William T. Grant Foundation has a tradition of investing in research to inform policies and practices to benefit American youth. Yet, there is concern over the gap between the research evidence that is produced and how it is consumed by policymakers and practitioners. While the gap in research use is well documented, more attention needs to be devoted to the consumer side of the equation: What affects how policymakers and practitioners access, interpret, and apply research evidence?

A. Purpose of the Study

Using research evidence to inform educational policy and practice is a perennial issue. While the No Child Left Behind Act of 2001 (2002) demands that educators use scientifically based research* to inform their decisions, educators complain that there is insufficient research evidence available to make informed decisions. What can be done to ensure that research is more available, relevant, and useful? What do we know about conditions under

*In subpart 37 of section 9101 of the act, Congress defines scientifically based research as “research that involves the application of rigorous, systematic and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs.” Further discussion of the law can be found on page 20 of this study.

which research evidence is being successfully used to shape educational policy and practice?

This exploratory study attempted to investigate some of those issues through individual interviews and a series of national focus group sessions with federal, state, and local educational policymakers and practitioners. Our goal was to help identify when, how, and under what conditions research evidence is used by policymakers and practitioners; what other sources of information are used by these individuals; and what factors serve as barriers or facilitators to using research evidence in making policy and practice decisions.

Nutley, Walter, and Davies (2007), Weiss (1979), and others have classified the manner in which research is used for making policy decisions. In describing these typologies, Nutley and colleagues distinguish between instrumental and conceptual perspectives of evidence use. Instrumental use refers to the specific impact of a piece of research on a specific decision or solution. It “represents a widely held view of what research use means” (p. 36). On the other hand, conceptual use relates to the more indirect influence of research. “It happens where research changes ways of thinking, alerting policymakers and practitioners to an issue or playing a more ‘consciousness-raising’ role” (p. 36).

Honig and Coburn (2008) systematically identified factors that influence evidence use and asked how they are affected by the nature of the evidence and the nature of the decisions. They recommended that central office staff be realistic in terms of what evidence can offer; that access to research be improved and that research be presented in useful formats; and that collaboration and professional development be supported to build staff’s capacity to use evidence.

These studies laid the foundation for our work and led us to pose the following questions:

- What factors influence changes in educational policy and practice?
- What evidence is used to inform educational policy and practice?
- What are barriers to using research evidence in educational decision making?
- What facilitates using research evidence in educational decision making?
- What sources of research evidence are used in educational decision making?

A better understanding of these topics can help guide researchers in framing studies and working with policymakers and practitioners to target their needs. The themes uncovered in this study also may help inform the work of sponsors of applied research. As noted by the Foundation itself, “We believe that strengthening this understanding can improve our efforts to promote the production of useful research evidence and support policymakers’ and practitioners’ use of it to improve the lives of youth in the U.S.” (Tseng, 2008, p. 12).

B. Methodology

Participants

Data were collected via face-to-face interviews or focus groups with 65 influential leaders who use information to formulate policy and/or guide educational practice. Each participant received an honorarium of either cash or its equivalent for his or her involvement, which is the generally accepted convention for these events. It should be noted that while efforts were made to ensure that the participants were nationally representative, they were not randomly drawn. Rather, a convenience sample was used and therefore, the opinions and perspectives obtained from the 65 individuals do not necessarily reflect the depth and breadth that may have been obtained with a more comprehensive study of educational policymakers and practitioners.

The participants represented six different groups of federal, state, and local interests. Each group is described briefly below and the selection process, as well as the number of participants from each group, is noted:

- Council of Chief State School Officers (CCSSO)—CCSSO is a group of state education agency policymakers. They scheduled a focus group with our research team as part of the agenda at their deputies' conference. All 14 CCSSO deputy state superintendents attending the conference participated in the focus group session.
- Congressional Staff Members—Congressional staff members are federal educational policymakers. Individual face-to-face interviews were held with these participants to preserve their anonymity and because their ability to offer candid opinions on partisan issues would likely be affected in a group setting. The interviewees were selected by the researchers based on their positions on key congressional education appropriation and authorization committees. Ten congressional staff members were interviewed.
- National Conference of State Legislatures (NCSL)—NCSL members are state-level policymakers. The NCSL Education Committee scheduled the focus group as part of their meeting agenda; consequently, all eight meeting attendees participated in the focus group session.
- American Association of School Administrators (AASA)—AASA members are local educational practitioners. A focus group was scheduled as part of the AASA annual conference. A total of five school district superintendents volunteered to participate.
- Association for Supervision & Curriculum Development (ASCD)—ASCD is composed of local educational practitioners. A focus group was scheduled as part of the ASCD annual conference. A total of 16 attendees (four curriculum coordinators, six principals, and six teachers) volunteered to participate in the focus group.

- National School Boards Association (NSBA)—NSBA is a group of local educational policymakers. The study authors collaborated with NSBA to identify focus group participants. The association provided a list of possible participants determined by specific criteria, including minimum years of service as a board member and size of the district represented. Study participants were then randomly selected from the list and invited to attend the focus group. A total of 12 district school board trustees agreed to participate.

Measures and Design

The intent of the study was to conduct a focus group with each of the six groups of participants in an effort to better understand the structural challenges and influences on using research evidence to inform policy. Focus groups are highly structured vehicles for guiding social interactions to gain clarity among participants’ experience and sentiments. They are often used to provoke insights among homogeneous groups in identifying and delineating problems. Ultimately five focus group sessions were held, scheduled to coincide with national conferences. Congressional staff members participated in individual interviews instead of a focus group in order to preserve their anonymity and because their ability to offer candid opinions on partisan issues would likely be affected in a group setting.

In the fall of 2008, the interview questions and focus group design were created and finalized, including scripting each of the focus groups sessions (see appendix B for the framing questions). While discussion questions were common to the five focus groups, discussion scenarios were tailored for each group. This was intended to draw out similarities and differences among the groups’ tasks and context. The sessions and interviews took place between November 2008 and April 2009. Table 1 shows where and when each focus group or interview was held for each group of participants.

Table 1. Study participants

| CONFERENCE | DATE | LOCATION |
|---|----------------------|-------------------|
| Council of Chief State School Officers (CCSSO) | November 13, 2008 | Austin, TX |
| Individual interviews (Congressional staff members) | December 16–18, 2008 | Washington, DC |
| National Conference of State Legislatures (NCSL) | January 30, 2009 | Tucson, AZ |
| American Association of School Administrators (AASA) | February 19, 2009 | San Francisco, CA |
| Association for Supervision & Curriculum Development (ASCD) | March 15, 2009 | Orlando, FL |
| National School Boards Association (NSBA) | April 4, 2009 | San Diego, CA |

Ninety-minute breakout sessions were arranged in conjunction with each of the conferences listed in table 1. Each focus group was guided by an experienced moderator and observed by a second researcher who recorded the proceedings and noted highlights of the tone and tenor (affect) of the session. The moderator also listened for ironies and possible contradictions in the discussion. This methodology was not intended to gain consensus on an issue or to find the majority opinion. Rather, the method allowed participants to build on each other's opinions to create a rich constructivist dialogue about the topic and its context.

The interviews were conducted face-to-face with each of the 10 congressional staff members separately. Each interview lasted approximately 30 minutes and followed the same framing questions as the focus groups. The results were aggregated to ensure individual privacy.

Analytic Techniques

Focus groups and interviews were audiotaped. The recordings were transcribed, and ATLAS.ti software was used in the initial analysis of the transcriptions to identify and organize qualitative patterns, themes, sub-themes, and threads of commentary among the different groups. A team of two researchers then collaborated to identify and code direct quotes from participants to be used in reporting findings. Tallies of coded respondent comments were developed to identify order of prevalence of responses so that the themes and subthemes could be reported in that order. Themes were only included in the report if they were mentioned independently by 10 or more respondents. This report was prepared in the final phase of the study, from April through June 2009.

C. Limitations

This study was intended to be exploratory in nature. As such, both the scope of the data collection and the sample size of participants were limited. While efforts were made to ensure that participants from each group were nationally representative, they were not randomly drawn. The opinions and perspectives of the 65 individuals chosen for the study do not necessarily reflect the depth and breadth of a more comprehensive study of educational policymakers and practitioners. Rather, this study was intended to capture the general views of a small sample of policymakers and practitioners in order to surface potential questions for further investigation.

The study findings are also limited by the nature of the information collected through interviews and focus groups. Participants offered their self-reported perceptions of the nature and manner in which various forms of evidence were purported to be used. No direct observations or document analyses were done of the actual evidence in use by the participants. While participants did not know the specific nature of the investigation, they were aware that they would be participating in a discussion about educational decision making. Such individuals may not be representative of educational practitioners or policymakers in general.

II. Study Findings

This study's findings are organized into six sections, moving from an initial discussion of factors that influence educational change to what information, including research evidence, informs policy and practice. The discussion continues with barriers and facilitators to using research evidence, the sources of research evidence, and the role of intermediaries—organizations and individuals who are perceived as unbiased and can help locate, sort, and prioritize the available research.

Each section begins with a review of the research literature to provide an overview of what is currently known about the topic. We attempted to focus primarily on empirical studies or syntheses of such studies; conceptual or theoretical works were included—and identified as such—when they helped to define issues. The literature review is followed by a discussion of the major themes derived from the participant comments. The general patterns of the entire sample are presented, reflecting the perspectives of both policymakers and practitioners at the local, state, and federal levels. Key differences among the groups are noted where appropriate. Quotes, in italics, are used for illustrative purposes and are identified by their study group. Each section concludes with specific questions for further study, which are explored more broadly in the last chapter of this report.

Throughout this study, we expected to find differences in responses between policymakers and practitioners. We also expected to find differences in responses between interviewees at the local (district), state, and federal level. In both cases, we found much stronger agreement among the groups than differences. In fact, the consistency of responses was remarkably similar, with only minor differences (such as emphasis). Such differences were negligible and are therefore not reported in this document.

A. Factors Influencing Change in Educational Policy and Practice

In both focus groups and individual interviews, we set the stage with a discussion of the factors that influence educational policy and practice. Study participants identified factors that work both to facilitate *and* impede change, as well as factors that are strong facilitators *or* strong barriers. Focus group comments and interviews reflected many of the same themes found in the literature review: policy and practice are influenced by research evidence but also reflect social, economic, and political considerations.

What does the literature say about factors that influence change in educational policy and practice?

Federal, state, and district initiatives

During the last six decades empirical research has directly and indirectly influenced changes in policy and practice in a variety of areas, ranging from U.S. Supreme Court decisions on equity and funding to policy decisions on

class size, lesson design, and the standards-based reform movement (see conceptual discussions in Mosher & Smith, 2009; Swartz & Kardos, 2009).

Federal initiatives are often influenced through testimony at congressional committee hearings, as seen in the case of the No Child Left Behind Act of 2001 (NCLB). The diversity of stakeholders offering testimony on that particular legislation was reported on by Manna and Petrilli (2008). They noted that witnesses at committee hearings conducted between 1995 and 2001 represented two types of research organizations: 9 percent of the witnesses were affiliated with universities or colleges, and 8 percent worked at research-oriented think tanks (e.g., Heritage Foundation, 21st Century Schools Project); professional research firms (e.g., Mathematica, SRI International, RAND); or applied program developers (e.g., KIPP Foundation, Teach for America). Other witnesses included federal and state officials (12.4 percent and 11.8 percent, respectively); representatives of localities such as school districts (29.8 percent); and groups or individuals representing students, parents, associations, advocacy groups, and business (26.2 percent).

Local sources and trusted colleagues also play a large role in federal, state, and district initiatives as busy policymakers and their staffs look for “shortcuts” to relevant information. They call on a handful of experts in the field; attend small, focused conferences and seminars; and tap into the resources offered by intermediary organizations, including government agencies, foundations, advocacy groups, and constituent and membership groups such as the National Governors Association or the National Conference of State Legislators (Feldman, Nadash, & Gursen, 2001; Jewell & Bero, 2008; Sutton & Thompson, 2001; Weiss, 1989). The media are particularly influential as they can inform policymakers about potential hot topics and how the public might respond to those issues.

Policy making and practice are heavily influenced by federal and state mandates. For example, the Improving America’s Schools Act of 1994 and NCLB have facilitated the use of data in many districts and schools, shifting the use of data from mere compliance to informing decision making (Honig & Coburn, 2005; Wayman, Stringfield, & Yakimowski, 2004). The use of data in schools and districts is more frequent and widespread (Kerr, Marsh, Ikemoto, Darilek, & Barney, 2006; Means, Padilla, DeBarger, & Bakia, 2009), and technological infrastructure and the capacity to use data have increased in some—though not all—states and districts (Kerr et al., 2006; Lachat & Smith, 2005; Means et al., 2009). District and school staffs view the use of data as instructional and as a way to more effectively drive change (Corcoran, 2003; Massell & Goertz, 2002). As educators rely more heavily on data, they are asking for more comprehensive information from their districts and states (Massell, 2001) to monitor progress, inform professional development, and evaluate programs (Massell & Goertz, 2002). Massell (2001) also reported that a striking effect of the new emphasis on data is the change in administrators’ and teachers’ attitudes about their value in changing practice.

School district leaders play an especially important role in the impact of school improvement initiatives. Their interpretations of policy and level of support for reform affect how principals and teachers understand reform initiatives (Massell, 2001; Spillane, 1998). In addition, as policy changes are introduced through federal and state initiatives, there is sometimes internal

confusion and conflicting interpretations in districts, leaving schools to contend with conflicting and competing curricular strategies (Schaffer, Nesselrodt, & Stringfield, 1997). Pressures to use research-based strategies and programs have, at times, resulted in districts and schools adopting reform measures quickly and without careful consideration (Datnow & Stringfield, 2000). The emphasis on testing has resulted in many schools narrowing their instruction to just the content that is covered on tests and ignoring more effective and comprehensive improvement strategies (Datnow & Stringfield, 2000; Marsh, Pane, & Hamilton, 2006).

Finances and other resources

Finances and other resources are significant factors influencing change in educational policy and practice. Increased costs affect policy decisions at all levels. For example, if states allocate less money to districts, districts may increase class size, consolidate schools, shorten school years, lay off teachers, and freeze salaries (Beesley & Anderson, 2007; Duncombe & Yinger, 2007; Sharp, Malone, & Walter, 2003; Stahl, 2008). Districts often cite inflexible funding policies, such as highly prescribed allocation systems and excessive regulations on use of resources, as factors impeding change (Kruger, Woo, Miller, Davis, & Rayborn, 2008; Loeb, Bryk, & Hanushek, 2007). According to Hemsley-Brown and Sharp (2003), the most significant factors affecting practice are resources and regulations. Regulations that are compulsory and funded are likely to be implemented, while regulations that are optional and unfunded are unlikely to be implemented.

Lack of adequate and stable funding is a major hindrance to sustained school improvement (Kruger et al., 2008; Marsh & Robyn, 2006; Schaffer et al., 1997). The studies by Kruger and colleagues and Schaffer and colleagues found that temporary funding inhibits program coherency by causing schools to implement one program after another; when funds dry up, the new program is ended, halting potential improvements.

Even when funding is in greater supply, inadequate, haphazard, and nonstrategic financial and data systems remain significant barriers to effective use of resources in some states and districts (Loeb et al., 2007; Madda, Halverson, & Gomez, 2007). Research has shown that district and school staff members in some states see state data resource systems as inadequate, focusing too much on mandated reporting rather than providing information for ongoing student progress and performance and for improving teacher practice (Kruger et al., 2008; Loeb, Beteille, & Perez, 2008; Madda et al., 2007; Stanford University, 2007). De Wys, Bowen, Demeritt, and Adams' (2008) review of Washington state's finance system found that change at the district level is constrained by administrators' lack of understanding of how to make effective use of resources and data.

Leadership and culture

Research literature points to leadership as a key ingredient in bringing about change. The level of district and principal support has a strong impact on change and reform efforts. Their advocacy sets the context, establishes the agenda, and creates the expectations for implementing change, whether at the district or school level (Aladjem et al., 2006; Datnow & Stringfield, 2000; Herman et al., 2008; Massell, 2001; Schaffer et al., 1997; Supovitz, 2008).

The literature also indicates that successful schools have a committed staff who share the belief that all students can learn, hold high student expectations, and are willing to work hard and do whatever it takes to improve student achievement (Duke, 2007; Herman et al., 2008; Picucci, Brownson, Kahlert, & Sobel, 2002). Strong leaders are essential to bringing about this type of cohesive culture by setting cultural norms that include shared leadership, trust, and safety, as well as promoting opportunities for collaboration across buildings, departments, and levels (Duke, 2007; Herman et al., 2008; Honig & Coburn, 2008).

Bryk and Schneider (2002) found that effective social relationships among organizational members play a key role in change. Teachers are more likely to look at information in ways that will help them to question their previously held assumptions when they work collaboratively with that information (Coburn, Honig, & Stein, 2009; Herman et al., 2008). Empirical studies show that supportive leaders also establish the structures for promoting collective work: providing technical structures for timely access to relevant, user-friendly evidence and structures to build human capacity with ongoing support, access to expertise, and time for reflection (Coburn et al., 2009; Feldman & Tung, 2001; Kerr et al., 2006).

On the other hand, reform efforts can be frustrated by a number of other factors:

- Continually shifting district and state priorities and policies (Corcoran, 2003; Datnow & Stringfield, 2000)
- Pressure from local and state systems and parents to do “something” quickly (Corcoran, 2003)
- Turnover in leadership (Coburn, Touré, & Yamashita, n.d.; Corcoran, 2003; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005)
- A lack of administrative support (Corcoran, 2003; Datnow & Stringfield, 2000; Schaffer et al., 1997)
- Compartmentalized departments with limited mechanisms for communication and collaboration (Coburn et al., 2009; Coburn & Talbert, 2006; Corcoran, 2003; Spillane, 1998)
- Entrenched mind-sets and beliefs incompatible with reform efforts (Herman et al., 2008; Ingram, Louis, & Schroeder, 2004; Spillane, 1998; West & Rhoton, 1994)
- Fear of reprisals when trying out new strategies and distrust of new data and how they might be used (Datnow & Stringfield, 2000; Herman et al., 2008; Lachat & Smith, 2005; Marsh, 2002)
- Negative community perceptions (Herman et al., 2008)

The decisions of state legislators and congressional staff are shaped by the complex political and organizational contexts in which they work. In general they are constrained by short time frames in which to deal with complex issues; the need to respond to constituents and keep election promises; the power of decisions left to the hierarchy and ideology of their parties (Feldman et al., 2001; Jewell & Bero, 2008; Sutton & Thompson, 2001; Weiss, 1989); and the lack of institutional memory in states with term limits (Jewell & Bero, 2008).

Administrators, teachers, and school board members are faced with similar political and organizational complexities, including:

- Politics of their district and school communities
- Preexisting beliefs, working knowledge, and experiences of various individuals and work groups
- Compartmentalized structure of districts and schools and nonfunctioning mechanisms for communications
- Ebb and flow of resources
- Vicissitudes of public opinion (Englert, Kean, & Scribner, 1977; Honig & Coburn, 2008; Marsh et al., 2006; Weiss, 1989)

Other sources of influence

When looking at specific sources of influence on policy making, a 2006 study conducted by Swanson and Barlage identified the following as the top influential information sources on education policy:

1. National Assessment of Educational Progress
2. *Education Week*
3. National Center for Education Statistics
4. *New York Times*
5. U.S. Department of Education
6. Education Trust
7. *Washington Post*
8. (tied) *Education Next* and Public Education Network Weekly Newsblast
9. *Education Gadfly*
10. *Eduwonk*

The survey also identified the top influential organizations

1. U.S. Congress
2. U.S. Department of Education
3. Bill & Melinda Gates Foundation
4. Education Trust
5. National Governors Association
6. American Federation of Teachers
7. (tied) Achieve, Inc., and National Education Association
8. Thomas B. Fordham Foundation
9. Center on Education Policy

In his 2004 survey, Rich reported which think tanks were influential with the policy-making community. The survey listed 1) Heritage Foundation, 2) Brookings Institution, 3) Cato Institute, 4) American Enterprise Institute, 5) Progressive Policy Institute, 6) Urban Institute, 7) Center for Strategic and International Studies, and 8) RAND.

Professional organizations and other intermediaries play an important role in districts' use of evidence and best practices. Through their long-standing channels of communication, their understanding of local needs, and their established credibility, they are able to serve as mediators of research and policy (Honig & Coburn, 2005). Spillane (1998) reported that information received by district staff through professional associations helped shape their assumptions and beliefs, making the professional associations more influential than state policy in developing instructional agendas. Bartholomew and colleagues (2003) found that research had a national impact in the United Kingdom when it was translated into teaching

materials and training by research and development organizations and disseminated through professional networks. Another dominant outside influence in the world of instructional practice is the textbook and test publishers that districts and schools deal with in moving toward instructional change. Textbook and testing firms tend to be slow to innovate and are generally resistant to change at the local level (see conceptual discussion in Rowan, 2002).

What did our study participants say about factors that influence educational change?

The factors influencing change identified in the literature and in the focus groups and interviews were similar, with three themes standing out:

1. There are a number of factors that work both to facilitate and impede change. These include policy, legislation, or other mandates coming from those in positions of power; available funding and changes in the economy; political forces, including competing leaders, priorities, and biases; and special interest groups.
2. Strong facilitators of change include factors such as community expectations and needs; data on student achievement and needs; changes in leadership; and the influence of the media.
3. Factors that serve primarily as barriers to change include specific types of belief systems, tradition, resistance to change, and a lack of knowledge.

Within those three themes, 10 subthemes were most strongly mentioned. The themes and subthemes are detailed below in order of prevalence of response. The themes identified in the literature were repeated by study participants, though not necessarily with the same level of importance. It is interesting to note that while almost all groups stated that research evidence played a part in facilitating or impeding change, none identified it as a primary factor. Research evidence was seen in more of a supporting role.

THEME I: FACTORS THAT BOTH FACILITATE AND IMPEDE CHANGE

Subtheme 1: Policy, legislation, and mandates from those in positions of power

As stated in the literature section, policy and practice are heavily influenced by federal and state mandates. Focus group and interviewees agreed with this point. In our study, the most frequently mentioned factor in both facilitating and impeding change was the need to react to policy, legislation, and mandates from the top down. As study participants noted:

“Obviously the budget, employee groups, the governor—all of those can work either way.”—NCSL

“The last eight to 10 years I have found that we have had to be more reactive and creative in addressing how the federal government has tried to intervene. We are watching them more, more tied into our organizations like NCSL, because we need the information coming from what is happening in Washington, D.C.”—NCSL

“Within the law (NCLB) there is a requirement for professional development, the instructional practices for Reading First. It and other programs are based on scientifically based research, so NCLB uses it as—not necessarily as a stick—it’s just what you have to do, either you do it or you don’t.”—Congressional staff member

“Mandates generate policy, especially unfunded mandates.”—NSBA

State legislators spoke of taking action as a result of federal rule; local administrators pointed to state policy affecting or limiting their work; and school staff mentioned changes imposed by the local superintendent or board. Study participants noted that the same factor can be viewed as both positive and negative: a policy coming down from above may be directed at solving a problem, but can be perceived as limiting local control. As one focus group member pointed out, *I can’t neglect the state legislature, they are sometimes thinking that they are doing all the best work to improve schools, but by putting all of the regulations in place they are making change that much more difficult.*—AASA

Subtheme 2: Available funding and changes in the state or local economy

Research literature shows that budgetary constraints have far-rippling effects on policy and practice and even adequate funding can be problematic if it is used in nonstrategic, haphazard ways. With the recent state of the economy, interviewees and focus group members stressed that fiscal issues are playing an even stronger role in both policy making and practice. As one group member said, *“This year it’s the economy and tax burden, and education is still high, so that issue is real.”*—NCSL

Other study participants also stressed the role that financial resources—or lack thereof—play:

“Sometimes fiscal realities and fiscal aspects are the biggest player.”—ASCD

“Economics in our state is playing a big role, our new governor says that there are two towers—one is education and the other is economics—and one can’t exist without the other. Everything we do now is linked to economics.”—CCSSO

“Particularly in the last two or three years, you don’t do anything without realizing that property taxpayers are going to be impacted by anything and everything you do. And right now the vast majority of them will tell you they are being excessively burdened by school property tax.”—NCSL

Many focus group members and interviewees mentioned money as either a barrier or facilitator of change: The availability of funding was reported as a factor that supported change, while the lack of it was a barrier to change. That’s true not only when it comes to the impact of federal and state economic conditions, but local conditions as well. According to study

participants, the district budget and community economy—especially when deteriorating—can limit change, but can also demand modifications to practice. Communities with changing socioeconomic demographics are forced to change practice to meet the new needs of their students and constituents.

Subtheme 3: Political forces

In the research literature, political forces are a reality as a change agent, and this also holds true for study participants at every level—federal, state, and local. Interviewees and focus groups mentioned politics as both impeding and facilitating change. While politics was referred to with a negative connotation in most cases, participants reported that political will can also act as a strong motivator for change, countering complacency or even trumping a lack of funding. CCSSO study participants noted pressure particularly from *“competing political leaders and special interests from the governor’s office.”* Other comments included:

“You have to deal with it when the governor says something, regardless of the budget, and then we have to come along and take care of it.”—NCSL

“You said something about money earlier, have you ever noticed that even though there are concerns about money, if one person wants it, that might be enough if that person is higher than the rest? It doesn’t really matter how much it costs.”—ASCD

“Competition for control, you see it all the time.”—CCSSO

Subtheme 4: Special interest groups

As with the literature, advocacy and special interest groups were among the factors mentioned by study participants as influencers of change. Many participants noted that perceived biases may discount the impact of such groups; nonetheless, they must at least be heard. NCSL members indicated that groups that are perceived as having *“an agenda, an axe to grind,”* or who approach with only complaints and no suggestions for possible solutions are given less credence.

On the other hand, policymakers and practitioners noted that they often seek out input from special interest groups, feeling they are a good source of information and it behooves them to know the issues and research on both sides of an issue. As one congressional staff member stated, *“Sometimes, special interest groups or unions are the ones with the most up-to-date research or background on a topic. They need to know not only their side, but the information that may be used against them.”*

The distinction between a special interest group that is discounted and one that is consulted appears to be related to the group’s perceived level of bias or to its placement on the list of “trusted individuals” or intermediaries. *“If you have reason to believe or know if a lobbyist is attempting to deceive you, or in fact ... if they are threatening you, those people never set foot in your office again.”—NCSL*

“One place where policymakers get pressure is not just from the governor, but from constituent groups, from teachers, and from school boards—it comes from the bottom up.”—NCSL

THEME II: FACTORS THAT FACILITATE CHANGE

Subtheme 1: Community expectations and needs

In the research literature, as with study participants, we saw an obligation to remain sensitive to the needs and priorities of constituents. Policymakers and practitioners at all levels noted that while top-down pressures contribute to change, so do bottom-up pressures, initiatives, and issues. These might range from *“hot button issues such as autism”* (mentioned by a CCSSO participant) to *“grade configuration,”* discussed by an AASA participant: *“We built a new high school three years ago and promised our voters it would be a four-year high school. So, even though our needs have changed, and we have not done the work to include ninth-graders, we have to do it because it is what the community expects.”*

Study participants pointed out that they listen to the voice of voters, community groups, and special interests. As a focus group member from NCSL said, *“You show me someone that’s in the policy-making side of it, and if they don’t meet with teacher organizations, they’re only in there for a short period of time.”*

Changes in the makeup of a community also drive changes in policy and practice. As a participant from NSBA reflected, *“In my community we’ve gone from 12 percent Hispanic population to 69 percent. We’ve had huge change and we don’t teach the same way anymore.”*

Subtheme 2: Data on student achievement and needs

At the practitioner level, some of the strongest facilitators of change mentioned were related to data-driven student needs and achievement. According to a study participant from ASCD, *“In our school system, the greatest impetus for change is when something is not working for kids and we have to go to the research and look at what is working better and then make decisions to move forward.”* A CCSSO participant agreed that *“the actual needs of students, and sometimes the workforce make us change.”*

The increased emphasis on data systems, summative and formative assessment, and state standards prompted by requirements of NCLB has impacted not only practitioners, but policymakers and even the public. As student achievement—reflected in standardized test scores—becomes more transparent through state-issued, highly publicized school report cards, the demand for change builds. In the words of an NSBA group member, *“Our public watches our test scores in the paper, and real estate agents use scores to make decisions about good and bad schools.”*

The research literature also points out that the use of data is on the upswing, and confirms that it serves as a facilitator of change and reform efforts when effective data systems are in place, along with the capacity to analyze and interpret the data. However, several empirical studies show that data systems are not in place in many states and districts, nor is there the capacity to effectively utilize data.

Subtheme 3: Changes in leadership

As the literature makes clear, leadership is a key ingredient in bringing about change. This is true of both school leaders who come in with new strategies and ways of working together, as well as political leaders who

bring new agendas and funding priorities. Both policymakers and practitioners mentioned that a change in leadership almost always results in new or changed priorities. New leadership often triggers changes in practice at the federal, state, and local levels and, to a lesser degree, changes in policy (strongest at the federal level). As a CCSSO participant observed, *“New leadership, new governor, new commissioner, new whatever, I mean they’re going to drive the policy agenda for the state.”*

State legislators brought up the point that in many cases, changes in leadership at the top level were more frequent—and to some degree more disruptive—than changes below the leader level. As a NCSL focus group member said, *“I think reacting to the governors is a natural thing. We’re (legislature) still considered to be the mainstay for most people in education because the legislative members have been there longer. I have been through four governors after 16 years.”*

The research literature also notes that a change in leadership can create a barrier. Continual turnover in leadership can lead to shifting priorities in states, schools, and districts, while term limits in state legislatures can lead to a lack of institutional memory.

Subtheme 4: The influence of the media

Both the research literature and study participants identified the media as a strong influencer of change. The media influence show up in the research literature as a source of research information, as well as a means of informing practitioners and policymakers of potential hot topics, and how the public might respond to those issues.

The ability of the media to get the community’s attention was often mentioned by study participants as a driver of change. Compelling stories—positive, negative, or with heavy emotional appeal—were noted as having a strong impact on constituents and communities and, consequently, on educational policymakers and practitioners. As a congressional staff member commented, *“Anything that’s in the news that relates to education you have to pay attention to ... the few things that break through the mold and get written up in the New York Times or the Washington Post, the Chicago Tribune, you have to pay attention to.”*

Participants also felt that a strong story (or series of stories) in the media has much more potential impact than any research, regardless of how soundly the study is conducted or how noteworthy the results. According to one congressional staff member, *“In the political setting, research will never be as powerful a message as a human interest story in the newspaper.”* That may be why some study participants suggested that politicians, when proclaiming the positive changes they have made, find it advantageous to connect those changes to personal stories of affected individuals, thus establishing a more emotional connection.

Another strand of discussion related to the media centered on the quality of educational reportage in newspapers. Interviewees mentioned that the presence of education reporters on local papers is becoming less common, particularly as the newspaper industry contracts with hard times. Education issues are being covered by general reporters with little or no background in this area. This may manifest itself as a reporter asking school board members to discuss matters from closed sessions, or coverage that

may appear biased due to the reporter's lack of knowledge and background. NSBA focus group members talked of a new role for themselves, proactively contacting local reporters to establish rapport and provide insight into education issues. This is seen as an attempt to counter the perception that negative coverage sells more papers than positive coverage in education news—a phenomenon also commented on by a CCSSO member who talked about *"nasty articles that we see in the newspaper."*

"One thing that gets in the way is that people are just frozen in their current practices, whether the practices are working or not."—ASCD

THEME III: FACTORS THAT SERVE AS BARRIERS TO CHANGE

Subtheme 1: Belief systems, tradition, and resistance to change

In both policy and practice, all change must overcome resistance or unwillingness to alter well-established patterns of behavior and thought. At the heart of that resistance are belief systems, tradition, complacency, or even inertia, as reflected in these comments from study participants:

"Sometimes ... people's beliefs are the hardest to overcome."—CCSSO

"People don't like change. People are afraid of change. And I think that's happening in all of our workplaces, too."—NSBA

Changing practice can be difficult even when suggested changes are based on research, best practice, and successful models in similar contexts. Those attempting to implement policy changes also face the barriers of tradition and belief systems. Interviewees noted, with some chagrin, that to some degree everyone feels they know what is best for education, because they were students at one time. As an AASA participant put it, *"A common theme for me has always been the fact that we all are experts in education because we all went to school."*

The research literature affirms that entrenched mind-sets and beliefs can undermine change efforts, along with a culture of fear and distrust, especially when no organizational structures are in place to address these barriers.

Subtheme 2: Lack of knowledge

Many interviewees noted that lack of knowledge is an impediment to change. Research and professional development have the potential to offset this problem to some degree, as noted by a focus group member from AASA: *"What has happened in our schools to finally make changes in practice—teachers needed assistance with instructional delivery, so we provided coaches to guide them through the process of the system, and it has worked."*

However, barriers to change described above must be dealt with before policymakers and practitioners are receptive to new ways of thinking and doing.

The research literature confirms the need for capacity building, as well as organizational structures, to allow for effective professional development and time for collaborative planning and reflection.

B. Types of Evidence Used To Inform Educational Policy and Practice

This section moves beyond a discussion of educational change to take a closer look at the role that evidence plays in informing educational policy and practice. Further, we focus on the nature of evidence itself. What do educators believe to be research evidence? The literature review points out that practitioners and policymakers use research and data “most of the time” in decision making, but also rely on less scientific sources of information. In fact, study participants emphasized their reliance on broadly defined categories of “evidence” such as practice wisdom, the experience of others, and their own experience. How the evidence applied to local context was a main factor in whether it was used to inform policy and practice.

What does the literature say about the role of evidence in informing educational policy making and practice?

With the increased emphasis on accountability and assessment from NCLB—and the push to eliminate the achievement gap among subgroups of students—federal policymakers have created strong incentives for school leaders to ground their decisions in research and data. This research literature review provides a background on the role of evidence in policy and practice, as well as barriers and facilitators to its use. For the purpose of this review, “evidence” is defined as both research evidence and data.

... empirical findings derived from systematic research methods and analyses, which includes descriptive and intervention studies, analyses of qualitative and quantitative data, evaluation studies, meta-analyses, and cost-effectiveness studies. (Tseng, 2008, p. 13)

Use of evidence

Numerous studies have shown that educational policymakers and practitioners use research evidence in their work (Biddle & Saha, 2002; Corcoran, 2003; Herman, Golan, & Dreyfus, 1990; Honig & Coburn, 2005; Huang, Reiser, Parker, Muniec, & Salvucci, 2003; Kerr et al., 2006; Marsh, 2002). One study (Huang et al., 2003) found that a majority of the policymakers surveyed (49 of the 71 respondents) indicated they read reports of research studies and/or program evaluations “most of the time” or “just about always.” The respondents included superintendents and other local education officials, chief state school officers, state higher education executive officers, state legislators, governors’ education policy advisors, congressional staff members, and education association executives. In another study 90 percent of the principals interviewed rated research positively and stated that they tended to use research in their decision making (Biddle & Saha, 2002).

In 2002 Yohalem interviewed 30 practitioners, policymakers, and philanthropists from the youth field to see how research influenced their decision making. The respondents reported that they used research to make arguments, shape strategies, evaluate impact, and track trends. In one study, Corcoran, Fuhrman, and Belcher (2001) found that district staff was more committed to the use of evidence than was school staff. Ratcliffe and

colleagues (2004) reported that teachers consider research as influential, although more as a background influence.

Superintendents and other district administrators use multiple forms of evidence in a variety of decision-making processes, including student and school performance data, school improvement plans, community surveys, district program evaluations, testimony of experts, observations, and input from parents and community members (Corcoran et al., 2001; Honig & Coburn, 2008). In a survey by Herman and colleagues, school board members reported that test scores were an important source of information, although they judged the quality of their schools based on a broad array of information sources, including informal sources (parents, community, and media), and their own observations in classrooms and schools (Herman et al., 1990).

The role of data

Several studies document the access and use of data in schools and districts. The range of data available to schools has increased in recent years (Kerr et al., 2006; Means et al., 2009; Wayman & Stringfield, 2006). In addition to state and federal mandated reporting, schools and districts are increasingly using data in:

- Setting goals as a part of the school improvement process
- Making instructional decisions
- Grouping students and individualizing instruction
- Aligning instruction with standards
- Identifying low-performing students
- Monitoring student progress
- Evaluating personnel
- Identifying areas for professional development (Mason, 2002; Supovitz & Klein, 2003)

In looking at the use of evidence by district office administrators, Coburn and colleagues (2009) found that administrators use evidence more frequently and in more complex ways than is commonly understood. A number of studies have shown that evidence rarely plays a direct or “instrumental” role in policy and decision making (Coburn et al., 2009; Corcoran et al., 2001; Weiss, Murphy-Graham, & Birkeland, 2005), in part because research seldom provides clear direction. Most commonly, evidence plays more indirect or “conceptual” roles, such as influencing how administrators view a problem or introducing new ideas or concepts (Coburn et al., 2009; see also conceptual discussion in Greenberg & Mandell, 1991). Nutley and colleagues (2007) describe another common role that evidence plays: a “strategic” or “tactical” role, in which policymakers and practitioners use evidence to justify an approach or gain buy-in. (Conceptual models of evidence use are described by Weiss, 1979, and expanded by Nutley & Davies, n.d.; see also Corcoran et al., 2001).

Other influences

As one would expect, research and data are rarely the only factors considered in policy and decision making (Coburn et al., 2009; David, 1981; Weiss et al., 2005). Educational policymakers’ and practitioners’ use of evidence can also be influenced by factors such as political ideology and practicality, economic

constraints, public opinion, constituent attitudes, prior beliefs and experiences, colleagues' opinions, an individual's level of education, and previous experience with research (Lomas, 1997; West & Rhoton, 1994).

Nutley and Davies's (n.d.) description of the influences surrounding research use is equally pertinent to the process of using all types of evidence:

There are multiple influences that shape whether and how research is used, and amongst these context is crucial—at both a macro- and a micro-level. Research is filtered through pre-existing understandings and is often adapted to fit local concerns and needs along the way. Thus research knowledge is translated and transformed, not simply transferred, in the process of its use. The interactions of individuals, groups and organizations are key to understanding the flow of research as research use is ultimately an interactive social process involving iterative dialogue and debate. It is these characteristics that we need to bear in mind as we seek to enhance research use. (p. 15).

What did our study participants say about types of evidence and their use in educational policy and practice?

To determine how policymakers and practitioners use evidence, study participants were asked to talk about the type of evidence they seek. Policymakers and practitioners in our study used the term “evidence” in the broad sense. Focus group participants indicated that they consider information from a variety of sources such as newspapers, media reports, constituent feedback; data (state and local databases, evaluation data from previous initiatives, data collected from multiple databases); personal experience and the experience of others from similar schools, districts, and states; and empirical research evidence. And, they reported that they use these sources interchangeably.

In our focus groups and interviews, scientifically based research, as defined in NCLB (see page 20), was not mentioned as often, nor discussed as strongly, as these other types of evidence. This was due in part to study participants' skepticism and perceptions about empirical findings. Both policymakers and practitioners expressed concern about the applicability of research evidence to their unique situations, whether at the state, district, school, or classroom level.

In fact, our study identified research relevant to the user's context as the strongest issue across all groups and levels. Users judge all research evidence and other sources of information against their local context, pre-existing understandings, local needs, and expectations. They measure the utility and application of the evidence as it relates (or does not relate) to their specific situation. Policymakers and practitioners in our study placed much more weight on what they considered to be “practical, real-life, or pragmatic” evidence, including local research, local data, their own experience, and the experience of others.

The research literature and our study participants are consistent in their descriptions of how evidence informs educational policy and practice. As in the literature review, study participants' responses suggest that evidence is a key factor in making decisions. Both the literature review and our study point to the increasing use of data, one form of evidence. Due in part to the

requirements of NCLB, much more data are available at the federal, state, district, school, and individual student levels. These data reside in newly developed databases that allow for deeper analysis and use in both policy and practice.

One area not identified in research literature is what study participants described as “evidence of failed research.” In short, they report that they not only need to know what worked (evidence on effective programs and practices), but what did *not* work (evidence on ineffective programs and practices), so they can avoid those pitfalls.

Our study found nine themes regarding policymakers’ and practitioners’ answers to questions about the type of evidence they seek. These themes are discussed below in order of prevalence of response. Laced through the majority of responses across all themes, and by far the strongest issue identified by all groups, was the application of others’ findings to policymakers’ and practitioners’ specific contexts.

“Truth in research is relative to context.”
—CCSSO

THEME I: SEEKING RESEARCH THAT IS CONTEXTUALLY RELEVANT

Our literature review indicated that research and other forms of evidence are used in educational decision making. Our study participants confirmed and emphasized the importance of evidence that speaks to their own circumstances. In fact, the strongest theme that emerged from each group was that research—whether scientifically based studies or best practices—must be viewed in relation to the local context. State policymakers (CCSSO and NCSL) seek information from similar states—within their region and with comparable demographics. According to one CCSSO focus group member, *“As a public policy leader in education, part of the terrain to navigate includes the trick of which research makes sense in your context. [The quandary is] the contextual realities that you face versus other research that probably has worked and has been effective and has been known to have proven results but in a different context in a different time and place.”* A congressional staff member pointed out that even the most rigorous research is weighed against local realities: *“Scientifically based research is still the gold standard, but we need to recognize we are talking education—we’re talking kids and teachers. You can’t always reach that standard because you can’t always do randomized control studies, it just doesn’t work in the education system we have.”*

Because the No Child Left Behind Act (2002) has drawn attention to the use of scientifically based research by educators, this term was also used in the focus group and interview discussions. In the law (subpart 37 of section 9101), Congress defines scientifically based research as “research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs; and includes research that:

- i. Employs systematic, empirical methods that draw on observation or experiment
- ii. Involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn

- iii. Relies on measurements or observational methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators
- iv. Is evaluated using experimental or quasi-experimental designs in which individuals, entities, programs or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random assignment experiments, or other designs to the extent that those designs contain within-condition or across-condition controls
- v. Ensures that experimental studies are presented in sufficient detail and clarity to allow for replication or, at a minimum, offer the opportunity to build systematically on their findings
- vi. Has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review”

Participants in this study defined scientifically based research as “gold standard” controlled trials. Despite the weight given by NCLB to such research, local policymakers and practitioners (e.g., AASA, ASCD, and NSBA) said they would rather look for information from similar school districts and schools—similar in size, demographics, urban-rural settings, and other characteristics. Practitioners (superintendents, principals, teachers) and local board members are more focused on issues of practice, adoption, adaptation, and application in real-life schools rather than on policy. They are looking for models and best practices that have been successfully implemented in schools and classrooms like their own. Teachers and principals especially wanted to find successful models in similar schools that they could visit.

Evidence of success in New York City is viewed with skepticism or is disregarded for application in rural Indiana. As a congressional staff member said, *“If something works in a small school district, is it going to work in a large one?”*

THEME II: USING RESEARCH BASED ON LOCAL DATA

As shown in our research review, the range of data available to schools and districts has greatly expanded in many states and is being used for many different purposes linked to improving student achievement. The policymakers and practitioners in our study confirmed that fact, which was seen as a by-product of NCLB. Again, they stressed the importance of locally generated data. As a CCSSO focus group member commented, *“Now that our data systems are getting better, we’re actually starting to be able to produce some of our (own) statistically based type of research and hypothesis.”* While the data are not always fully linked or easily accessed and managed, they are being used more frequently for decision making, especially at the state and local district/school level. It is more common now for states and schools to conduct informal research, pose questions, and then analyze their data to find answers to questions of local importance. Commented

“I think the most reliable data for research that we can rely on is our own in our own school districts.”—NSBA

one CCSSO participant, *“We have better data systems that let us test our hypothesis.”*

“We’re spending a lot of money and education is important, so we really can’t waste time spending [money] on things that aren’t working.”

—Congressional staff member

“So you are finding the best practices, you’re talking amongst your peer groups, whether you’re teachers, principals, or superintendents.”

—AASA

“It is what it is. I would certainly say the anecdotal or the real-life experiences that staff or members face are probably always going to trump research. I’m not sure there’s a heck of a lot you can do on that front.”

—Congressional staff member

THEME III: EXAMINING RESEARCH EVIDENCE FOR RESULTS, BENEFITS, AND EFFECTIVENESS

Both policymakers and practitioners want to know that their policy and practice decisions are based on evidence that shows results, particularly in similar contexts and situations. In the practice arena, the issue of fidelity of implementation overshadows the research behind chosen materials or practices. Even with proven evidence of benefits and effectiveness, practitioners know that the same positive results are not guaranteed. Other factors such as local context variables, staff, bottom-up support for change, and sustainability of the effort can affect outcomes.

THEME IV: GLEANING PRACTICE WISDOM—USING THE EXPERIENCE AND SUCCESSFUL PRACTICES OF OTHERS

In the research literature and with study participants, the experience and opinions of colleagues and peers are strong factors in educational decision making. Again, the practice of those in similar contexts carries particular weight. All levels of study respondents seek out peers for what they termed “practice wisdom.” Congressional staff members seek the advice of other staff members with more experience or expertise in an area and state policymakers (CCSSO and NCSL) confer with colleagues in neighboring or similar states. As one CCSSO focus group member said, *“We wouldn’t go to a research source, we would go to where a comparable program has been operated (LEA or SEA), including overseas.”*

Local district practitioners (NSBA, AASA, and ASCD) go to trusted peers for help in identifying effective programs and practices that might be applied or adapted to their situation. *“I like to hear from people that have already tried it too with similar demographics in addition to the research,”* commented one ASCD study participant.

THEME V: LOOKING FOR EVIDENCE BASED ON CONSENSUS, PREPONDERANCE OF FACTS, AND ACCUMULATED KNOWLEDGE

When seeking evidence to inform policy and practice, each group of participants recognized the limitations of individual or narrow sources. As the literature review pointed out, factors that range from public opinion to prior beliefs and political ideology help shape educational decisions. All our study participants were concerned that the evidence they use be based on consensus, dialogue, accumulated knowledge, and preponderance of facts. Again, while policymakers and practitioners use research evidence, they regard it as just one form of evidence. In fact, perceived limitations, such as differences between research settings and “real-world” classrooms, make scientifically based research a particularly less informative source, according to study participants. A congressional staff member relies on a combination of *“a little bit of what does intuition and experience tell you and*

what does the research show. If there is research, I think it's given a higher weight ... but we often don't have a lot of research."

THEME VI: FINDING WHAT WORKS—EVIDENCE ON EFFECTIVE PRACTICES AND PROGRAMS

Study participants acknowledged that decisions about practice need to be highly practical. All groups interviewed indicated the value of evidence of effectiveness in practices and programs, especially at the school and classroom level. They seek information on best available models and on evaluation-based successes—again, in similar contexts to their own.

Among the comments we heard on this subject were:

"Sure you're finding the best practices, you're talking amongst your peer groups—whether you're teachers, principals, superintendents—and doing your research on the Internet, talking with the local colleges and universities to see who is making a difference. I was always afraid about coming up with something new because you're sort of flying by the seat of your pants. I'm always looking for who's been there and done that, and what can we steal from them to take our organization to the next level."—AASA

"[We look for] proven practices that can be adapted and implemented."
—CCSSO

THEME VII: LEARNING FROM RESEARCH WITH NEGATIVE FINDINGS

The research literature did not address learning from negative findings. In our study, however, practitioners (ASCD, AASA, NSBA, and, to some degree, CCSSO) commented that they would like to see more reporting on programs, practices, and/or policies that have not been successful. While this type of research is seldom available, the groups feel that there is as much to learn from negative outcomes as there is from successful policies and programs. They also feel that reporting on these "failures" helps to justify the expense of such trials/attempts. From both the policymaker and the practitioner points of view, knowledge about where programs/policies break down informs them about potential problems in implementation that they may be able to avoid when instituting a new practice or policy. One NCSL focus group member wants to know *"if I do this, what's the failure study on this particular issue and what are the real consequences of those failures? Because, it's important to me."*

THEME VIII: DETERMINING SYSTEM ALIGNMENT AND SUSTAINABILITY

All groups indicated a need to consider the long-term view when putting new policies or practices in place. They want to know how the new policy or practice will interact with the rest of the system, and what will be the likely impact of the decision over time. *"We must always ask, 'How does the evidence of research fit into the whole system, systemically?'"* stated a CCSSO focus group member. Participants also expressed the need to know

"I look for models, other people that are doing what I want to do and how are they doing it. How successful are they? We visit them, we send teachers out quite a bit, and I go myself."—AASA

"Nobody wants to talk about their failures, but a lot of residual benefits can be learned from failures. The drug companies do it all the time but we don't seem to do that."—NSBA

"I think it is important to include a thoughtful process about where that decision or that policy might lead at the end of the day."—NSBA

if changes will limit or assist them in getting where they want to be in five years. Can they sustain this program—especially if it is connected to funding that may not be continued?

“With a change in governor, or leadership, there are always new priorities and new directions. It is a political reality, and those new priorities are seldom based on research of any kind.”—NCSL

THEME IX: GIVING PREFERENCE TO POLITICAL PERSPECTIVES

It was a common belief among interviewees and focus group members that educational policy making was affected by political processes, especially at the federal level and to a lesser degree at the state level. It was further felt that those political processes exerted a stronger influence than research. It was also a common belief that research was often used to serve a political agenda: Research could be found to support any point of view and was therefore of little valid use/limited impact in policy making and in practice. The Reading First program was cited by a number of study participants as an example of this phenomenon. The successes of Reading First, as viewed by practitioners at the state, district, and school levels, were ignored or discounted because of narrow evaluation research and an effective program was discontinued. One congressional staff member put the issue in perspective: *“I think research plays a very important role in policy making. It doesn’t mean that it plays the sole role by any means because it is a political process as well. Unfortunately more often than not, for a variety of reasons, the research is either ignored or thrown to the side because of a member’s personal viewpoint or their background or the political winds, or interest groups and a variety of other things.”*

C. Barriers to Use of Research Evidence

Our next research question attempts to illuminate factors that act as barriers to the use of research evidence. This includes not only characteristics of the evidence itself, but also the nature of the educational decisionmaker. Both the literature review and comments by study participants point to barriers created by the complexity of research reports and their lack of relevancy, timeliness, and accessibility.

What does the literature tell us about the barriers to using research evidence in educational policy making and practice?

As we look at how to enhance the use of research evidence, it is important to note that criticisms of research resonate from studies on research itself. Those studies have found that research:

- Is not relevant (Biddle & Saha, 2002; Hemsley-Brown & Sharp, 2003; Huang et al., 2003; Jewell & Bero, 2008; Sutton & Thompson, 2001)
- Is complex and contradictory and seldom provides clear direction or implications for action (Dobbins, Ciliska, Cockerill, Barnsley, & DiCenso, 2002; Huang et al., 2003; Sutton & Thompson, 2001)
- Is neither easily accessible nor timely (Corcoran, 2003; Hemsley-Brown & Sharp, 2003; Lovitt & Higgins, 1996; MacColl & White, 1998; Rickinson, 2005; Sutton & Thompson, 2001)

- Is subject to advocacy, politics, and marketing bias (Huang et al., 2003; see also conceptual discussion in Fusarelli, 2008)

The cultural differences that exist between the research community and practitioner and policymaker communities create obstacles to cooperation among these three groups. There is mutual mistrust, with a perceived political unfamiliarity of researchers and a lack of understanding of research principles by educational policymakers and practitioners (Innvaer, Vist, Trommald, & Oxman, 2002; Lomas, 1997; Percy-Smith, 2002; see also conceptual discussion in Lewig, Arney, & Scott, 2006; Shonkoff, 2000). Other issues include:

- Researchers lack credibility among educational policymakers and practitioners (Dobbins et al., 2002)
- The research process is often long, focusing on a detailed understanding of an issue, while educational policymakers and practitioners need to work from unambiguous, easily understood information with clear direction in a short time frame (see conceptual discussion in Lewig et al., 2006)
- Researchers' language is nuanced and filled with jargon and statistics, while educational policymakers and practitioners want concise explanations with anecdotes and stories (Hemsley-Brown & Sharp, 2003)
- Researchers are rewarded for publication in academic journals that practitioners do not read (Hemsley-Brown & Sharp, 2003)

Data use

In looking at data use, even though a growing body of research suggests the use of data by schools and districts is on the upswing (Kerr et al., 2006), several studies show it is not always effectively utilized (Kerr et al., 2006; Lachat & Smith, 2005; Means et al., 2009; Wayman & Stringfield, 2006). Studies have identified a number of organizational barriers to the use of data:

- The amount of data is extensive, confusing, complex, and exists in multiple files (Lachat & Smith, 2005; Wayman & Stringfield, 2006)
- Districts lack capacity to house, analyze, and interpret multiple types of data (Kerr et al., 2006; Lachat & Smith, 2005; Means et al., 2009; Wayman, Stringfield, & Yakimowski, 2004)
- Districts lack capacity to house, analyze, and interpret multiple types of data (Kerr et al., 2006; Lachat & Smith, 2005; Means et al., 2009; Wayman et al., 2004)
- It is difficult to access the appropriate data when they are needed (Honig & Coburn, 2005; Kerr et al., 2006; Lachat & Smith, 2005; Means et al., 2009; Supovitz & Klein, 2003; Wayman, Midgley, & Stringfield, 2005)
- Districts and schools lack capacity to formulate questions and analyze and interpret data (Feldman & Tung, 2001; Mason, 2002)

Other physical and cultural considerations

Other structural, human resource, and cultural barriers impede research and data use: Workloads allow little time to search for and conduct research or interpret and analyze data (Biddle & Saha, 2002; Huang et al., 2003; Jewell & Bero, 2008; Sutton & Thompson, 2001). There is too little time for collaborative planning for evidence use (Kerr et al., 2006); and

a lack of effective professional development and time to build capacity for evidence use and to assimilate new skills (Herman & Gribbons, 2001; Ingram et al., 2004; Kerr et al., 2006; Lachat & Smith, 2005; Mason, 2002). Additional barriers include:

- Inadequate facilities (Hemsley-Brown & Sharp, 2003)
- A lack of administrative leadership that builds a vision for evidence use and models the use of evidence (Kerr et al., 2006; Means et al., 2009)
- Resistance to change and fear and mistrust of how the evidence will be used (Hemsley-Brown & Sharp, 2003; Coburn & Talbert, 2006; Ingram et al., 2004; Supovitz & Klein, 2003)
- A culture of turnover, where administrative careerism trumps long-term commitment and educational policymakers face term limits and short-ened legislative service (Corcoran, 2003; Jewell & Bero, 2008)
- Pressures that force educational policymakers and practitioners to resort to more expedient approaches rather than long-term, measured ones (Corcoran, 2003; Sutton & Thompson, 2001)

What did our participants identify as barriers to using research evidence?

As noted in the previous section, policymakers and practitioners use a variety of types of evidence to inform educational policy and practice; research evidence is just one source of information. When asked about barriers to using research evidence, study participants identified two broad themes with approximately equal frequency: There are barriers related to research users and barriers related to the research itself. Comments within each of those categories fell into five subthemes, which are described in order of prevalence of response. As seen in the literature review, study participants noted that research may be biased and can have other limitations. In addition, both the literature and this study surfaced barriers such as local capacity to house and interpret data, and policymakers' and practitioners' confidence in interpreting and applying research evidence.

There is general agreement between the barriers identified in the literature and those identified by focus group and interview participants. However, there was one area strongly emphasized by participants. As discussed in Section B of this report, this is related to context. Focus group and interview participants felt strongly that research settings differ from school and classroom settings, and that the differences are important. They are skeptical about whether research conducted in well-designed and controlled contexts can be generalized to their "real-life" schools. Many interviewees felt the limitations were so significant as to make research evidence unusable for their contexts and situations.

"The reality is that sometimes, even given the best research or some evidence, we may still ignore it."

—Congressional staff member

THEME I: BARRIERS RELATED TO RESEARCH USERS

Subtheme 1: Lack of motivation/desire to use research

While interviewees and focus group members expressed a general desire to utilize research, they did not feel it was always practical or expedient to do so. Some participants noted that politics and other factors can take

precedence over research in some cases. Other study participants noted that sometimes only a portion of the available research is utilized—the portion that supports a prior position or decision. As a congressional staff member commented, *“You often have the policy in mind for other reasons. So you look for only the research that will back up that policy.”*

Our literature review also indicated that policymakers and practitioners may be put off by their perception of researchers as biased, influenced by politics, and assuming advocacy roles.

Subtheme 2: Large volume of research reports

Several participants reported that they feel unable to stay current on the research due to the increasing amount produced. One congressional staff member noted, *“There are a lot of reports since the passage of NCLB, a lot more reports than we have ever had. There is not a day that goes by that we don’t have some kind of report coming out. You can’t keep up with all of it. The sheer mass and being able to find your way through it makes it difficult to use research.”* A frequent criticism was that it is impossible to thoroughly read and digest all the research reports—some up to 100 pages long and written in difficult-to-understand technical language—on topics for which study participants have limited background.

Subtheme 3: Time constraints

Due to the voluminous amount of research available (as discussed above in subtheme 2), most policymakers and practitioners stated that they simply do not have the time to acquire, process, and utilize research. A majority of those that do search out research evidence to inform their work, do so through trusted individuals and intermediaries.

The literature review reinforced the idea that users feel it is difficult to locate appropriate data when it is needed, and therefore turn to trusted external sources for help. In the words of a focus group member from ASCD, *“I have to go to the sources that I trust, because there is too much out there.”* The use of intermediaries is discussed in the section of this report on facilitators of research use, and more thoroughly in the last section of this report’s findings (see p. 46).

Subtheme 4: Inability to easily access research evidence

Many interviewees and focus group members expressed a lack of confidence in their ability to access research, citing little or no professional development focusing on how to acquire, process, and use research. *“We don’t have a structure that supports the ability to retrieve and take the time to integrate that [research], which is out there,”* noted a CCSSO focus group member.

While some study participants have learned from experience or from colleagues in similar job roles, they still feel that they lack skills in accessing and analyzing research. Because of this, they stated that they often use only limited research or rely on other trusted individuals or intermediaries for assistance. As the literature review pointed out, users find researchers’ language nuanced, filled with jargon, and delivered in ways that are not user friendly.

Subtheme 5: Ability to be a critical consumer of research

To be a good, critical consumer of research, the user must fully examine the research for bias and limitations, including how it relates to the user's specific situation and context. Policymakers and practitioners mentioned that they did not feel confident in their ability to do this. Consequently they may avoid the use of research evidence and revert to "*hunch, guesswork, and fad,*" or rely on other trusted sources to assist in this process.

In addition to a lack of confidence in accessing research evidence, interviewees also expressed a lack of confidence in their ability to fully understand and make judgments based on the research. They mentioned that they do not feel fully versed in research processes, especially in fields where they have little background. Therefore, they are reluctant to use the research evidence in their work.

Practitioners especially feel that a stamp of "scientifically based research" is not a guarantee that the research evidence is, in fact, solid and has implications for their situation. A focus group member from ASCD put it this way: "*You need to know the research that stands behind things. Everything comes with a stamp on it these days that says it is research based, but that doesn't mean it is good research.*"

Respondents from NCSL, CCSSO, ASCD, and AASA mentioned that they rely on specialists in the topic areas to provide assistance in vetting solid research evidence. These specialists may include associations/groups of special education or curriculum experts in content areas such as math, reading, or science.

"We do want to use results-based practice, but our schools are not laboratories."

—CCSSO

THEME II: BARRIERS RELATED TO THE RESEARCH ITSELF

Subtheme 1: Research settings differ from school and classroom settings, and the differences are important

Overall, interviewees voiced skepticism about the validity of research evidence—even well-designed and well-conducted studies—particularly with regard to its application in schools, school districts, and classrooms. The underlying feeling across multiple interviewees was that "research is not real life." Furthermore, study participants felt that research evidence, by its very nature, has limitations. Those limitations are especially significant when taking a piece of research, which is often viewed as theory, and moving it to the school setting. Many interviewees feel these limitations are so significant that they make research evidence unusable for their situation.

These opinions echo studies in our literature review that found practitioner and policymaker communities regard research as not relevant and seldom providing clear direction or implications. Among the comments we recorded on this subtheme were:

"I think we've been trying to ... find the golden ring with a program, but it's more about the success of the teacher delivering that curriculum with the children on a daily basis."—AASA

“There have been criticisms that the definition of gold standard research is too stringent, that requiring that it be peer reviewed, that it have causal relationships, that there be a control group—which is how it is in the science world, it’s probably not appropriate for the elementary or secondary setting. It is certainly not appropriate for the area of early childhood education. That’s something that people have urged us to look at again—the need to relax some of the requirements within SBR to allow school districts and states to be able to use more products that, while they may not have causal relationships, may in fact have modest effects on student achievement, and should be disseminated.”—Congressional staff member

“Do you think the reality is that, at a classroom level, it’s very hard to impose control so that those variables can be isolated, and can you have a true research design around a premise in a classroom environment where you can’t control every variable? That is the push-pull in the process. Yes, you ought to be able to utilize research-based practice and we want to infuse those into our programs so that we will make a difference, but utilizing programs as designed is very difficult to do.”—CCSSO

Subtheme 2: Limited availability of research evidence, including scientifically based research

In our interviews and focus groups, many people echoed this comment by a congressional staff member: *“I guess I could say kind of broadly that I think, especially in education policy and probably in other areas ... there’s a real sense that there’s not enough research to base things on ... I don’t know how much of that is that there isn’t enough research out there and how much of that is that we aren’t aware of what research is out there.”*

Such comments appear paradoxical, when considered alongside feedback given on barriers related to research users. While study participants said there’s too much research to keep up with, they also indicated they are unable to use research evidence because there is not enough available. The difference lies in the quality and type of research sought by the policymakers and practitioners. As the literature review showed, some research evidence is considered suspect because it’s perceived as biased or politically motivated. The research literature also reported that researchers don’t necessarily study topics deemed important by practitioners and policymakers.

Policymakers especially wanted to know simply if investments in programs are well spent. In the words of one congressional staff member: *“There is definitely an aspect in education generally, of there not being a lot of really good data that you can rely on about programs. That has always been a really big problem. We have these programs, but are they actually working? How do you measure if they are working? I think that there’s a great appetite to know more about whether the federal programs we have going out there are in fact a good use of the funding. For new policy, there certainly is not enough when it comes to a research base of any kind.”*

Policymakers and practitioners indicated they want research evidence that can be directly applied to their situation and can inform decision making with little need for interpretation on their part—and that type of research evidence is in short supply. For example, a study may be available that took place in several large urban school districts such as New York or

Chicago, but the practitioner is in a small rural school system in Ohio or Kansas. The differences in context may severely limit the study's application to the smaller setting. State legislators may find research conducted in another state, but if the economic conditions, demographics, or geography vary substantially, the research evidence may not be considered useful.

Subtheme 3: Timeliness of applicable research evidence

The literature review shows that one problem with research evidence is it's not viewed as timely. Consequently, policymakers and practitioners turn to trusted experts in the field when they need evidence. Good research takes time, especially when targeting longer term outcomes such as student achievement. However, as the interviewees noted, most policy and practice decisions are made in a relatively short time span. As one CCSSO focus group participant said, *"Research is too slow. Two years is not fast response. We need the information now."* A participant from ASCD commented, *"By the time the work gets presented it is almost obsolete."*

At the state and federal policy levels, the number of bills and actions under consideration during a legislative session require quick turnaround of background information. For that information to include research evidence, staff must rely on previously conducted research (which may be difficult to locate quickly) or on other sources. While there is an increasing desire to conduct and use locally conducted research, it often takes too long to make that practical. In the words of a CCSSO member, *"We are in such a changing world, so when you get the research, the people we work with want to do this little narrow study, and it's not what we want. It's not what we need and it will take two years to do it."*

"In two years I'll be somewhere else because the legislature will have said they want to look at something else then. It is a problem in terms of these studies that people do. We can't say to our people that we are going to take two years and we're not going to engage you. We'll take research if it's applicable, but we can't structure a study because we are going to be someplace else by the time that it is completed."

Subtheme 4: Limitations of research findings

All research has its limitations, and especially research in the field of education. Policymakers and practitioners are increasing their skills in examining research with a critical eye. As their awareness of research methodology grows, they are becoming more aware that all research has its strengths, but also its limitations. As a congressional staff member succinctly summed up, *"I think education research, by its very nature, is a bit squishy."*

Other comments we recorded on this subtheme include:

"Under the guise of NCLB, unless it is a very narrowly defined kind of research, it doesn't count."—ASCD

"It depends on what the source of the research is, and how reliable it is. There are a lot of companies out there that do research, but the research is conducted toward a specific result and it is biased."—NSBA

The concern is also complicated by the realization that it is difficult to conduct research in an educational setting, with its overwhelming number

of variables. It's a daunting task to acquire research that matches one's situation on a sufficient number of these variables so that application of the research is valid in that context. As a CCSSO focus group member indicated, sometimes it's easier to fall back on what you think might work, rather than what the research says: *"You are talking to a room full of people that spent the first half of their careers operating on hunch, guesswork, and fad. I admit to it. As a principal, I've had to say, 'OK, we've got to do something and there isn't a whole lot of time to figure it out.' We just need to give it our best shot."*

Subtheme 5: Difficulty in managing or combining data in multiple databases

The literature review raises the issue of lack of school and district capacity to house, analyze, and interpret multiple types of data and to manage them in a way that's easy to access. In our study, both policymakers and practitioners confirmed that this was a concern. They mentioned that they would like to rely more heavily on local databases for valid data based in local contexts, especially on student achievement and needs. With the advent of NCLB, states and districts have much more local data available for query, but the data often reside in multiple databases that are difficult to merge and manage. A study participant from AASA described the problem this way: *"We tend to gather disparate databases that make it awfully difficult to make a data string at all. The Herculean task is to get someone to actually put it in some kind of cognizant form."* With current economic constraints, it's unlikely there will be resources to resolve this issue in the near future.

D. Facilitators of Using Research Evidence

The flip side of the previous section on barriers is the question of what factors facilitate the use of research evidence. Our study looked at characteristics of the research and processes for accessing it. Both study responses and the literature agree that research use is improved by using translators and intermediaries; presenting findings in succinct, nontechnical terms; and detailing proven practices.

What does the literature say about facilitators to the use of research evidence in educational policy making and practice?

Relationships between researchers and users

Among the numerous studies that have examined how to enhance the use of evidence, one area of focus has been in improving the relationship among researchers, policymakers, and practitioners. Empirical studies have identified the following ways that might be accomplished:

- Establishing research user groups, advisory groups for ongoing communication, and an improved understanding of the various groups' research needs (Fixsen et al., 2005; Haines & Donald, 1998; Hemsley-Brown & Sharp, 2003; Higgins, 2001; Sutton & Thompson, 2001)
- Posing questions to users both prior to conducting research and prior to publication (Higgins, 2001; Sutton & Thompson, 2001)

- Establishing a network of trusted research contacts for educational policymakers and practitioners that they can turn to on short notice (Jewell & Bero, 2008)
- Helping policymakers and practitioners to reframe policy issues to better address specific contexts (Jewell & Bero, 2008)
- Working through intermediaries to serve as a link between the research and the decision-making worlds (Canadian Health Services Research Foundation, 2003; Manna & Petrilli, 2008; Ratcliffe et al., 2004)

Communication of findings

Many studies have identified facilitators in communicating research findings to policymakers and practitioners, including:

- Presenting research in brief, one- to two-page summaries with links to complete research reports or supporting data (Higgins, 2001; Huang et al., 2003; Jewell & Bero, 2008; Ratcliffe et al., 2004; Sutton & Thompson, 2001)
- Providing a snapshot of the big picture and how the findings fit into the overall context with implications for action (Jewell & Bero, 2008; Louis & Jones, 2001; Sutton & Thompson, 2001; Westbrook & Boethel, 1996)
- Using plain, nontechnical language, with light referencing and minimal statistical data (Cordingley, 2000; Dobbins et al., 2002; Huang et al., 2003; Jewell & Bero, 2008; Sutton & Thompson, 2001; Westbrook & Boethel, 1996)
- Weaving in illustrations, anecdotes, analogies, and examples to help users relate findings to their beliefs and experiences (Hemsley-Brown & Sharp, 2003; Higgins, 2001; Westbrook & Boethel, 1996)
- Providing guidance for practical decision making (Huang et al., 2003)
- Disseminating the findings through a variety of mechanisms, including interactive meetings (e.g., briefings, luncheons, personal meetings), Web sites, electronic journals, and audiotapes, as well as through forums, professional conferences, and seminars (Bero et al., 1998; Huang et al., 2003; Sutton & Thompson, 2001; Westbrook & Boethel, 1996); and establishing professional networks (Hemsley-Brown & Sharp, 2003; Ratcliffe et al., 2004)

Organizational structures

Several studies looked at organizational structures to encourage practitioner use of evidence. Among the facilitators identified were:

- Establishing high-quality planning and program assessments with stakeholder input (Mihalic, Irwin, Fagan, Ballard, & Elliott, 2004; U.S. Department of Health and Human Services, 2002)
- Providing training, ongoing follow-up coaching, and other support for district and school personnel in interpreting, analyzing, and applying evidence (Fixsen et al., 2005; Huang et al., 2003; Jewell & Bero, 2008; Wayman et al., 2004; Wye & McClenahan, 2000)
- Offering staff access to timely data in useful formats through technology that integrates and links multiple types of data (Lachat & Smith, 2005; NFIE, 2003; Wayman et al., 2004)

- Establishing structures that promote and support shared leadership and collaboration to reduce fear and mistrust (Fielding et al., 2005; Lachat & Smith, 2005; NFIE, 2003; Ratcliffe et al., 2004)
- Identifying champions of evidence use, including principals and other administrators, teacher leaders, department chairs, evidence teams, and coaches (Mihalic & Irwin, 2003)
- Developing action research opportunities to extend practitioner skill sets and contribute to the development of a culture of evidence-based practice (Ratcliffe et al., 2004; Wye & McClenahan, 2000)
- Building a critical mass of research- and data-engaged practitioners (Wilson, Hemsley-Brown, Easton, & Sharp, 2003)
- Promoting advanced education to administrators and teacher leaders to familiarize them with ways to seek out and interpret research (Hemsley-Brown & Sharp, 2003; West & Rhoton, 1994)

In reviewing all of these contributors to enhancing evidence use, it's important to keep in mind that changing behaviors and establishing new expectations is a process that may require several years (Wye & McClenahan, 2000).

What did the study participants say about facilitators of the use of research evidence in educational policy making and practice?

Both the research literature and the participants identified the importance of intermediaries and trusted individuals to increase the communication between researchers and policymakers and practitioners. In addition, both the literature and our study discussed the potential for technology to enhance the use of research. To offset the increasing complexity and number of databases available, participants reported they seek more specific search engines to assist in accessing all types of evidence. As they described it, they were looking for “Google for educators.”

Both the literature and the participants discussed that communication of findings could be enhanced by reporting research evidence in more succinct, nontechnical, and readable formats. The participants noted that they found syntheses, compilations, and summaries across multiple research studies to be more helpful than the original reports themselves, especially given that the reports seemed to be written more for researchers than for practitioners. They also expressed a preference for more application-based research and evidence on proven practices.

Focus groups and interviews with policymakers and practitioners identified two themes concerning what makes research evidence easier to use; as with barriers, facilitators pertained to research users' skills and confidence level and to the qualities of the research itself. Comments within these themes fell into a number of subthemes that are presented in order of prevalence of response. Likewise, the findings from the literature review also can be divided between factors that help policymakers and practitioners become more adept and comfortable when using research and factors that make the research more accessible and practical.

“What I need is Google for educators.”—CCSSO

THEME I: PROCESSES FOR ACCESSING RESEARCH EVIDENCE

Subtheme 1: Accessing research through intermediaries and translators

When asked where they go for evidence, it was clear among all six groups that they seldom, if ever, go directly to reports of research findings. There are a variety of explanations, which were discussed more thoroughly in the section on barriers to use of research evidence. However, the interviewees and focus group members report that they almost always seek research indirectly, through intermediaries and translators. “Intermediaries” were described as unbiased organizations and individuals that can help locate, sort, and prioritize the available research. The use of intermediaries who serve as a link between research and the decision-making worlds was one of the study topics uncovered in our literature review.

Among the comments we heard about intermediaries were:

“Thank God for the Congressional Research Service. That is where we go because we know their reports are going to be written in very plain language. It is quick and dirty. Unfortunately it may not always give us the full picture, but it is our saving grace sometimes.”—Congressional staff member

“They [NSBA] have a policy expert that would come in and sit down with our policy committee and explain things.”—NSBA

Policymakers and practitioners also turn to translators to understand and process the available research. “Translators” were described as organizations and individuals with technical skills in reading and interpreting research. A number of studies in our literature review probed the reasons why translators are used, including the format and technical language of most available research. In our focus group sessions and interviews, it was a commonly voiced opinion that translators are needed because research is often incomprehensible to the layperson:

“I remember one time someone was sitting there giving a presentation and I looked over at my board member and he was laughing because there was probably only one person in the room that understood this—and that was the person presenting it.”—NSBA

“Some things that I have heard from others is that you need information that is timely, you need something that has the research base and the numbers behind it. But you also need it to be put in everyday language—meta-analysis kinds of things, maybe summary kinds of things that are easily accessible.”—CCSSO

The use of intermediaries and translators was so overwhelmingly emphasized that we have devoted a later section of this report to that topic.

Subtheme 2: Use of trusted individuals

While our study found that almost all research is accessed through intermediaries and translators, there appears to be an additional element in play. Personal relationships, one-on-one interactions, and connections between people are motivators in deciding where to turn for research evidence. It

was not uncommon for study participants to state that they would call a former professor or work colleague or someone they once met and had a discussion with to ask for an opinion. As one congressional staff member said, *“I often talk to a professor I had in my university undergraduate program to get his point of view. We have stayed in contact professionally for years, and I trust his opinions.”* A focus group member from ASCD reported that *“being able to have access to your curriculum people in the district is very important [because] they are the ones who are current with what’s going on in their area.”* A representative of NCSL made the point that trust is not conferred lightly: *“I am not going to deem a source as reliable unless I know exactly who they are and what it is that they represent.”*

The existence of networks of trusted research contacts, available on short notice, was the focus of one study found in our literature review. This relationship dynamic deserves further examination as a means for researchers to break down barriers to the use of evidence.

Subtheme 3: Technology and other delivery modes

When policymakers and practitioners search for research themselves—rather than through trusted individuals or organizations—they most frequently use electronic sources, especially the Internet. However, they noted that technology has its limitations and frustrations:

“We’ll go to a lab. We’ll go to each other. Then we’ll collect the stuff and start an analysis and sometimes a synthesis. But we need a way to have it happen more easily. So if I wanted to know about dropout I can enter dropout and it won’t send me to 500 different dropout-related Web sites where I still need to sort through it all and pull from all of that. So it’s the access to it in a meaningful way that is the problem.”—CCSSO

When asked for suggestions on how technology could be improved to facilitate research use, participants voiced a strong desire for a quick, economical, easy-to-use, but targeted means of locating research—a “Google for educators.” Many interviewees expressed frustration with Internet searches that return hundreds of hits, too many to be useful and many of which do not relate to their needs. As a CCSSO representative said, *“I would like to go to some place that wouldn’t give me a million results.”* This problem may be an issue with the search engines or with the search skills of the information seekers.

The study participants also suggested additional technology-based ideas to increase the accessibility and availability of research. Such ideas include podcasts, CD-ROMs, Web broadcasts on demand, and computer searchable and accessible video clips. An ASCD focus group member offered this example: *“When we picked up our ASCD booklets this year, it had a CD-ROM. I thought that was so neat for those of us who were plugged in and wanted to use our laptop to get our schedules for the day. It was a great way to do that.”* As another ASCD member pointed out, the new generation of educators is more comfortable receiving information via technology and researchers might want to take advantage of that: *“To make research more accessible you need to look at the fact that teachers coming out now are digital natives. If you could do some sort of research podcast that they subscribe to and it just pops up as they are commuting to work: They’ve got their iPod with them—maybe*

they are listening to or watching research rather than just relying on some of the more traditional forms.” In our literature review, we found a number of studies that examine disseminating research through alternative modes, including interactive meetings, electronic journals, and audiotape.

“I am forced back to the days when I was a principal. The first day we had orientation and they [teachers] weren’t particularly interested. When you said ‘research’ it was like something turned off and their eyes glazed over. It would be so very powerful if there was some way you could connect it to them, because that to me is where the most important work is done.”—AASA

THEME II: CHARACTERISTICS OF THE RESEARCH EVIDENCE

Subtheme 1: Application-based research

As study participants acknowledged, acquiring and understanding research is one thing, but actually getting it into the hands of teachers and using it in classroom practice is another. Both policymakers and practitioners mentioned that for research to be useful and credible with teachers, it needs to be something that teachers can and will immediately apply to their own situation. As we discussed before, context is everything. In the words of a focus group member from AASA, *“We try to find districts with similar demographics—base income, education, free and reduced-price lunch, ethnicity. Whatever the case may be that looks more like us so that we can try and draw similar comparisons.”* An ASCD participant noted that the daily reality of teaching can make it difficult to incorporate research: *“It is frustrating for teachers. They are in the classroom doing all the daily work and at the same time trying to understand and implement something new into their practices.”*

Context also matters when it comes to policy making, as an NCSL participant noted: *“What happens in one state, does that translate into what’s going to happen in my state with regard to policy decisions?”* The role of context came up several times in our literature review, with studies that looked at the need to reframe policy issues to better address specific contexts and offer reports with “snapshots” that break down a big picture view into actionable steps for various contexts.

Subtheme 2: Quality standards for research and researchers

Responses in focus groups and interviews indicated that policymakers and practitioners are not only becoming more critical consumers of research, but also they’re more critical of researchers themselves. Many participants not only want to know that the research results are based on sound methodological considerations, but that the researchers were independent, objective, reliable, credible, and truthful. As a member of NSBA noted, *“You need to know if there is an ulterior motive to them providing you with that research.”* That thought was echoed in this comment by a representative of NCSL:

“Research from a disinterested party such as NCSL is valuable. As you deal with one or another advocacy groups, you have to be mindful of their perspective. There may be times when they are playing offense: They want your support to accomplish something. There are also times when they are playing defense: They want your support to stop something. So they are as flexible, if not more so, than most legislators are.”

The literature review suggests that research use might be enhanced through better communication between researchers and educational

decisionmakers and professional development that builds a critical mass of research- and data-engaged practitioners.

Subtheme 3: Proven practices with practical applications in schools and classrooms

As previously discussed, practitioners in particular expressed a desire to have research that shows close connections to schools and classrooms. Statistical significance carries less weight, in the practitioner's eyes, than proven practices in school and classroom settings. Indeed, the literature review indicates that research presented in nontechnical terms with minimal statistical data is more desirable. In our focus groups and interviews, a preference was voiced for case studies and vignettes from similar settings to the participants' own contexts. As a focus group member from AASA said, *"If we are talking about the superintendent level, system level, then I'm probably most interested in a case study and then sending a team to the site to verify."* Another AASA member agreed, *"If you can tie the research to a case study it's very relevant."*

Congressional staff members indicated that in the political arena, stories (especially in the media) about real people trump research. The literature review also suggested using anecdotes and analogies to help research users relate findings to their own experiences.

Subtheme 4: Results presented as syntheses, compilations, and summaries

Again, with the large amount of research of varying quality available, policymakers and practitioners expressed difficulty in locating, sorting, and using individual research reports. Many mentioned a desire to know what a body of knowledge says; consequently they're looking for syntheses, compilations, and summaries of research evidence produced by translators and intermediaries. Such formats are considered as more trusted and practical sources of research. In the words of a CCSSO focus group member, *"I think I would be more inclined to look for a meta-analysis rather than for an individual research study on a particular narrow topic. That's where I'd be trying to find some compilation and analysis of the research in order to inform a particular practice rather than looking at three individual research reports."*

Subtheme 5: Use of a succinct and readable format

The literature review pointed out that research use could be facilitated by presenting findings in one- to two-page summaries with links to supporting data. That finding was echoed in our focus groups with comments such as this one from a member of AASA: *"I love quick research briefs, one-page bulleted, so I can go back and find more information later—contact person, departments."* A member of ASCD added, *"If you see a summary of a report, and the summary is 83 pages long—that is not a usable summary for me."* In addition to favoring succinct reports, some study participants also expressed a preference for studies published in a usable format with larger fonts. *"I don't want it in size 8 or 9 font. I cannot read it, and when you are tired and when you feel like you really need to know a little piece, or a little bit more about a concept, you've got to be able to just pick it up and read it,"* said a focus group member from NCSL.

As previously discussed, interviewees and focus group members often commented that research reports are not written in language that's understandable to a lay audience. Also, it is difficult for them to judge sound methodology and quality research with their limited background and knowledge. They noted that they are stressed by lack of time, heavy workloads, and the sheer volume of reported research—all of which makes it impractical to use research in many cases. Therefore, they rely on trusted individuals and organizations (intermediaries) to provide them with translations of solid research in a usable form, such as a research brief. As one ASCD member commented, *"I think of sources like the What Works Clearinghouse or the Florida Center for Reading Research. They do a really nice job of presenting a one-page summary and everything is consistent."*

Another ASCD representative suggested, *"Make something like Cliffs-Notes or a cheat sheet you can put in [a] thick book. It would be great for all of those people who only have 15 minutes to go through it. That may pique their interest and then they may go pick up the book again."*

While interviewees acknowledged that they do want to know that there is a research base behind the information they use, they generally don't need to see that background in depth.

E. Sources of Research Evidence

Where do educational decisionmakers turn for research evidence? Both our study and the literature indicate that practitioners and policymakers acquire research evidence through a variety of organizations and constituents and directly by attending conferences and accessing journals and other materials.

What does the literature say about the sources of research evidence used by educational policymakers and practitioners?

Research reports versus popular publications

While policymakers and practitioners access research evidence in many different ways, they did not identify scholarly research journals and published research reports as primary sources. Rather, they relied more heavily on professional journals and bulletins, professional associations, conferences, magazines from unions, the Internet (through e-mail and Web sites), national and regional research and development organizations, visiting researchers, and materials distributed by the government, as well as colleagues and "trusted sources" (Biddle & Saha, 2002; Huang et al., 2003; NFIE, 2002; St. Clair, Chen, & Taylor, 2003).

The most widely read journals are a mixture of refereed research and popular professional publications:

- *Educational Leadership*
- *Phi Delta Kappan*
- *Education Week*
- *Harvard Education Review*
- *Great City Schools*
- *Education Next*

- *Education Gadfly*
- *Journal of Staff Development*
- Publications of the American Educational Research Association (Biddle & Saha, 2002; Huang et al., 2003; Weiss, 1989)

Henson (2007) looked at characteristics of a sample of professional journals, finding that some of the more popular professional journals occasionally featured brief synopses of research but not original research, nor did they contain peer-reviewed research studies. He reported the following results:

- *Harvard Education Review* (50 percent research articles, 0 refereed)
- *School Administrator* (10 percent research articles, 0 refereed)
- *Educational Leadership* (15 percent research articles, 0 refereed)
- *Phi Delta Kappan* (50 percent research articles, 0 refereed)

Education Week was not a part of the study.

Professional organizations and conferences

Research has shown that national professional associations and organizations and their conferences and publications are important sources of information for groups such as teachers, principals, administrators, legislators, youth service workers, and congressional staff members (Bartholomew et al., 2003; Biddle & Saha, 2002; Huang et al., 2003; Ratcliffe et al., 2004; St. Clair et al., 2003; Yohalem, 2002). Professional conferences, particularly regional conferences, were a valued resource for receiving information that was immediately relevant to practitioners' and policymakers' own contexts (Huang et al., 2003). However, in his discussion of professional association conferences, Fusarelli (2008) reported they offered few opportunities for research dissemination, and few superintendents or district administrators attend those sessions that do.

In interviews and focus groups, Huang and colleagues (2003) found policymakers' and practitioners' sources of research included:

- ERIC
- National and regional professional associations
- Professional conferences
- Journals and magazines
- Federal government (specifically NCES and IES)
- Regional educational laboratories
- Other regional/state education services
- Internal staff and resources for policymakers (Huang et al., 2003)

The most frequently mentioned associations and organizations were the American Association of School Administrators, Association for Supervision and Curriculum Development, American Educational Research Association, National Conference of State Legislatures, the Education Commission of the States, Consortium for Policy Research in Education, and American Council on Education (Biddle & Saha, 2002; Huang et al., 2003; Weiss, 1989).

Sources for congressional committees

Weiss (1989) looked at congressional committees and their use of information, identifying a variety of sources of information, including four

congressional support agencies: the Congressional Research Service, the Congressional Budget Office, the U.S. General Accountability Office, and the Office of Technology Assessment. Members of Congress also gather information through personal communication:

- Hearings (for which committee staff members prepare by using research)
- Testimony
- Constituents and interest groups
- Colleagues and staff
- Telephone contacts
- Seminars for members of Congress and congressional staff offered by professional associations (Weiss, 1989)

Congressional staff from both parties interviewed by Huang and colleagues (2003) responded that they often receive research information directly sent to the offices of the congressional member of House or Senate committees. They also receive reports from institutions and think tanks such as the Urban Institute and the Aspen Institute. Colleagues were also identified as resources, as were universities and the U.S. Department of Education.

Personal communication and other informal sources

There is some evidence to suggest that policymakers and practitioners have a preference for informal and indirect research sources (Landrum, Cook, Tankersley, & Fitzgerald, 2002; St. Clair et al., 2003). In their study of policymakers, Sutton and Thompson (2001) reported that time pressures often forced policymakers to devise their own alternative system of expert networks. These “informed experts” give their perspectives on trends in particular areas and where to find the best information. In an earlier survey by Herman and colleagues (1990), school board members reported that they judged the quality of their schools based on a broad array of information sources beyond just test scores, including informal sources such as parents, community, and media, as well as their own observations in classrooms and schools.

Landrum and colleagues (2002) found in interviews with Midwest teachers that they rated professional journals and college coursework as generally less trustworthy than their colleagues and publications from workshops and inservice sessions. In a study by Bartholomew and fellow authors (2003), teachers identified as a significant source of information research and development projects “translated” through teaching materials and inservice training and delivered through professional networks.

In a survey of teachers and administrators in the United Kingdom, Williams and Coles (2003) found the most frequently used sources are colleagues (46.5 percent). “Inservice events” were rated high in popularity (37 percent), due in part to the fact that research presented this way was linked to professional practice, although some teachers noted that the research basis was not always clear in inservice sessions. Newspapers and professional journals were ranked highly as sources (41.3 percent). The study also found the Internet was noted as a relatively popular source (27.6 percent), due to its accessibility and speed, although a significant proportion of the respondents (19.9 percent) also indicated that they never use the Internet. In a later study, involving a series of focus groups of teachers from research-

active schools across the United Kingdom, the first choice for finding relevant research was the Internet. Printed materials that were mentioned included newspapers, magazines from unions and associations, and materials distributed by the government (Sanders, White, Sharp, & Taggart, 2005).

Colleagues were also mentioned as a valuable resource to policymakers in the study by Huang and colleagues (2003). More than half the 30 superintendents and local education officials said they rely “heavily” on personal communication to receive current information on research in the field.

A study of adult literacy teachers in Texas by St. Clair and colleagues (2003) found the favorite means of finding research information included:

- Internet (49 percent)
- Newsletters (58 percent)
- Conferences (48 percent)

Academic books and research reports were the least popular, ranking 9 percent and 18 percent respectively.

Data and other types of evidence

With the emphasis on data prompted by state and federal mandates in recent years, the range of data available to districts and schools has increased (Celio & Harvey, 2005; Kerr et al., 2006; Marsh et al., 2005; Means et al., 2009; Wayman & Stringfield, 2006). Beyond the school-level data provided by states for compliance reporting, a number of states also have more sophisticated Web sites with a wealth of data and supplemental information to assist in decision making (Massell, 2001). Access to local student data systems has also grown significantly in recent years (Lachat & Smith, 2005; Means et al., 2009; Wayman & Stringfield, 2006).

In addition, districts and schools have access to data from standardized assessments and they can draw on a much broader set of evidence, including data about their own students, staff, and schools; student attendance and dropout rates; student mobility; and graduation rates (Marsh et al., 2006; Massell, 2001). In addition, they rely on information for decision making that’s gathered from reviews of student assignments and feedback from teachers; community dialogues with parents and students; expert testimony; and evaluation information (Corcoran, 2003; Herman et al., 1990; Honig & Coburn, 2008; Marsh, 2002; Marsh et al., 2006; Massell & Goertz, 2002). In schools supported by reform partnerships or educational management organizations there is often data collection through special tools and protocols, such as classroom observations of the nature and quality of student dialogue and the clarity of instructional expectations, as well as through commercial polls (Marsh et al., 2005, 2006).

What sources of research evidence did our study participants identify?

As noted previously, the policymakers and practitioners questioned for this study view “research” not only as formal, empirical studies but as data and more informal information. The literature review reinforced the finding that scholarly research journals are not relied on as heavily as popular professional publications, conferences, and social contacts.

Both the literature and study participants reported a strong use of peers as sources of research evidence, as well as research evidence accessed directly through a variety of electronic means. As previously mentioned, the literature and study participants also reported an increasing use of local data as an important source of information. With the expanded availability of databases (especially those reporting student achievement), interviewees reported conducting their own querying and analysis of local databases to inform decision making.

However, while the literature identified research reports as a source of evidence, policymakers and practitioners almost universally responded that, for a number of reasons discussed in other sections of this study, they do not read or use research reports. Congressional staff members also indicated that they use such reports less frequently, relying more on information from government agencies.

While our focus groups and interviewees identified many similar sources of research evidence, some sources were unique to a particular group of educational decisionmakers. Two main themes emerged from the responses: Study participants seek evidence from organizations and individuals consulted as translators and intermediaries; and they access information directly through electronic and other means. Within these two themes, various sub-themes emerged that are described in order of prevalence of response.

“We look everywhere, educational partners, federal technical assistance centers, comprehensive centers.”—CCSSO

THEME I: ORGANIZATIONS AND INDIVIDUALS AS SOURCES

Subtheme 1: Research organizations

As the literature review indicated, sources such as ERIC, federal agencies, state/regional education services, and think tanks are popular with educational decisionmakers. In our study, policymakers and practitioners also expressed a strong reliance on research organizations as sources of research. At the federal level, policymakers noted that they look first to the Congressional Research Service and then to IES and other federal agencies. As one congressional staff member said, *“What types and sources of research? The main body that we always look to is IES or NCES, just because they are the two we see as experts, they have instant credibility with policymakers as well as the research community.”* Another congressional staff member also put IES high on the list of expert sources: *“IES and NAS are the main two I go to. But the thing is that NAS takes a long time to do something because they are convening a panel of experts. JAO, sometimes we will go to JAO, but frankly my opinion is that they take a long time and their findings are always very couched.”* Interest groups and associations were also mentioned as reliable places to go for information on best practice.

In addition, policymakers rely on think tanks to provide them with research: Which think tank they go to may be related to political affiliations. At the state and local level, policymakers said they look to regional educational laboratories, research centers, federally funded comprehensive centers, and colleges and universities. They also seek out federal education agencies, but most frequently go first to other organizations, job-related associations, and paid consultants (as discussed in the next subtheme).

Practitioners appear to rely most heavily on peers and associations of peers, but also on regional educational laboratories and others with whom they have relationships, such as colleges and universities. A focus group member from ASCD stated, *“We use our university connections and those folks who are smarter than I am about some of these areas.”* A study participant from CCSSO commented, *“Regional laboratories are great. They have the analysis of the research in the topics you want and you can search within their Web sites and finds lots of information.”*

Subtheme 2: Other organizations, partners, coalitions, and networks

Congressional staff members frequently mentioned seeking information from lobbyists, as well as experts and paid consultants. One congressional staff member gave this example: *“If something is related to special education, I go to the special education groups. They have the research, they know where to pull it from, and it is much easier for them.”*

At the state and local levels, policymakers and practitioners indicated they rely heavily on job-related associations or networks for support and assistance. As a study participant from NSBA remarked, *“In Washington we often go to the Washington State School Directors’ Association for information. They do all the policy for local school districts. They have it because it is directed in the law for the state association to develop policy.”* NSBA focus group members also cited ASCD, AASA, and NEOLA Inc. as sources.

Many participants acknowledged that these types of professional organizations have the closest connection to their needs, and can respond in a form and manner that is most useful to them. For example, local board members rely on state boards; state chiefs turn to CCSSO; and state legislators seek information from NCSL. ASCD focus group members mentioned organizations such as the International Reading Association and *“coalitions of policy partners who have buy in ... school boards, administrators, teachers, higher education, PTA, associations.”* Another ASCD representative favored *“networking with other people who do the same job. They have the same issues, but with different groups of kids and we are all approaching it a little bit differently.”*

The comments from our study participants were supported by studies in the literature review, which reported that teachers, principals, administrators, and others viewed national professional associations as an important source of information.

Paid consultants, lobbyists, scholars, and theoreticians are consulted in varying degrees by policymakers and practitioners at all levels. A focus group member from NCSL observed, *“Sometimes the lobbyist groups have the best resources because it is in their best interests. For example, when you look at teacher pay and we have to compare it with other states, the AFT (American Federation of Teachers) most likely will have the best information ... and they are the ones you can rely on to really do it in a better fashion.”*

Subtheme 3: Constituent groups

As supported in the research literature, the study participants at the federal, state, and local levels and—to a lesser degree, practitioners—rely on information from constituent groups to help shape their decisions. They seek information and data from those they serve when making decisions about

practice and policy. *“I think a lot of us get things by groups of constituents and others that come and see us,”* said one congressional staff member.

Parents, teachers, community members, and business leaders are not consulted for research, but they do provide a necessary and important source of information for the decision-making process. It is more common for groups of individuals to bring forward research—including public opinion data—especially when they communicate with elected state or federal officials. As a congressional staff member noted, *“A lot of them bring research and information to us, kind of what the program is, why it is important, and why we should keep funding it as a federal program.”*

Subtheme 4: Peers

The literature review highlighted the role of peers in information gathering; in fact, one study found Midwest teachers regarded their colleagues as more trustworthy than professional journals. The groups we spoke to also employ a number of informal contacts. Colleagues, peers, and others who share similar experiences are frequently consulted when seeking information for decision making, as described by a member of AASA: *“I talk a lot to my colleagues, the other superintendents. The county superintendents get together once a month and exchange a lot of good information on programs and practices: where they have been, where they are going, what they have seen, what they are initiating.”*

Subtheme 5: Trusted individuals

Both the research literature and study participants rely to a great extent on trusted individuals, including those within intermediary organizations. These trusted individuals are people with whom the policymaker or practitioner has built a personal relationship. As one congressional staff member said, *“If there is someone I really trust at one of the organizations like CCSSO, I might call them and ask if they have heard of this. What do you think; is this working in states? Do people like it? It’s all kind of word-of-mouth at that point.”* Another congressional staff member reported, *“Outside of the stuff that the regular sources bring us, we just go to the sources that we feel most comfortable with.”*

While the full nature of these relationships is not clear, they play an important role, as evidenced by this comment from a focus group member from ASCD: *“I also talk to people who I look up to, who will say go do this or go see this teacher, or just even word-of-mouth from people that I respect. Some have mentored me and say you need to read this or if you can get to this conference or get to this workshop, this is something that will be really important to you.”*

We discuss “trusted individuals” further in the section of this report on intermediaries (p. 49).

“We all read Phi Delta Kappan, Educational Leadership, Education Week, and we do two or three book studies a year on different topics that people will suggest.”—AASA

THEME II: DIRECT SOURCES

Subtheme 1: Publications and conferences

As supported in the research literature, study participants reported that they consult written sources of information such as professional journals,

professional books (some of which are used in book study groups), re-search summaries, and briefs. They also see attendance at conferences, especially those of their job-alike associations, as being informative and useful. As a focus group member from NSBA explained, *“I know that some of the things I have learned have come from showing up to conferences. Sometimes somebody shows up and shows you something [that] you didn’t even know existed.”*

Conference presentations were regarded as useful, as were the opportunities to network and connect with colleagues and peers. Another NSBA study participant remarked, *“The thing is, coming to a national conference helps. You don’t have to recreate the wheel if you can find a tool there that might work, or with tweaking will work. That is cost-effective time management.”* A representative of AASA cited both publications and conferences as valuable sources of information: *“We do a lot of book studies and send our curriculum people out to conferences. We have a lot of good professional learning that we take advantage of. Some of it comes from going places and some of it comes from reading.”*

The research literature also highlighted the importance of personal communications from experts, think tanks, constituents, and interest groups as well as testimony at hearings and committee meetings.

Subtheme 2: Electronic sources

In the literature review, the Internet was frequently cited as a favorite source of information. Our study participants also mentioned electronic sources: Internet searches, electronic access to databases, e-mail updates from professional organizations, and the emerging use of video clips, blogs, and Webinars were noted as being increasingly used. One congressional staff member described the difference that electronic searches have made: *“I mean, the way staff does research now is so different. Way back, we used to sit in the reading room of the Library of Congress, going through a research paper. To get the information was very hard. The Internet has changed all of that in a drastic way. Type in what you are working on, you go from there and find the 10 papers that are out there.”*

Subtheme 3: Own research

Policymakers and practitioners noted that they conduct their own research: collecting data and performing evaluations and studies. A congressional staff member pointed out that the information gathering may also be delegated to others, saying, *“We often commission studies, too.”* These methods of finding information take longer than is practical in some instances, such as when research is needed for a proposed piece of legislation during a short session. However, due to the increased availability of databases (especially at the state and local level), policymakers and practitioners acknowledged using these sources more often. They also reported that they are required to collect data for evaluation purposes as part of new program implementation. Study participants use gut instinct, experience, and conventional wisdom, especially in the absence of data.

F. The Role of Intermediaries in Using Research Evidence

While the role of intermediaries was originally not a focus of this study, the findings in both the literature and our focus groups and interviews suggest that intermediaries are central to the research utilization process. Study responses prompted us to examine who, how, and why organizations and individuals play this unique role in the use of evidence.

What does the literature say about the role of research intermediaries?

This review summarizes a number of studies that describe the types of intermediary organizations and their various roles in the use of research in policy making and practice. The review also provides an overview of what studies have reported about how intermediaries might improve and add to activities that promote and facilitate the use of evidence in policy making and practice. For the purposes of this review, we use the definition of “intermediaries” provided by the William T. Grant Foundation:

... a diverse group of intermediary organizations and individuals who broker research evidence and relationships between researchers, policy-makers, and practitioners ... [who] often play a significant role in interpreting, packaging, and distributing research evidence for policymakers and practitioners. (Tseng, 2008, p. 18)

Types of intermediaries

A particularly important intermediary group is professional or membership organizations. These organizations exert a powerful influence on policy making and practice by shaping the beliefs and assumptions of their members, which are the basis of both policy and practice (Bartholomew et al., 2003; Hemsley-Brown & Sharp, 2003; Honig & Coburn, 2005; Ratcliffe et al., 2004; Spillane, 1998). In his conceptual discussion of the topic, Rowan (2002) pointed out that there are hundreds of membership organizations that dominate the education periodicals market. In addition to periodicals, these organizations offer short-term training that focuses on topics of interest to their membership (Feldman et al., 2001; Rowan, 2002). The important role of these organizations in bringing information to their constituencies was echoed in a number of other studies (Biddle & Saha, 2002; Hemsley-Brown & Sharp, 2003; Huang et al., 2003; Ratcliffe et al., 2004; Sutton & Thompson, 2001).

As influential as these organizations are, it is important to note that Fusarelli (2008) and Henson (2007), in their respective discussions of conferences and publications, found limited focus on research evidence. Corcoran (2003) noted a blurring in the distinction among research evidence, opinion, and advocacy.

There are also a large number of wide-ranging for-profit and nonprofit organizations providing information and technical assistance: universities engaged in research and technical assistance projects, think tanks and advocacy groups, and research and development organizations, as well as a variety of quasi-governmental research and technical assistance centers.

Nonprofits dominate in the market of providing research and development and technical assistance to districts and schools (Rowan, 2002). In addition, representatives of these organizations are frequently invited to serve on commissions and task forces and to testify at congressional hearings (Manna & Petrilli, 2008; Weiss, 1989).

Universities and individual researchers produce research and provide some dissemination activities, although primarily catering to members of their own community (Feldman et al., 2001). A number of foundations and government agencies sponsor research, focusing on high-quality applied research as well as short-term and long-term support to districts and schools (Feldman et al., 2001; Huang et al., 2003; Kowal & Hassell, 2005; Kronley & Handley, 2003).

Advocacy organizations and think tanks are powerful influences in the politics of policy making and practice (Jewell & Bero, 2008; Manna & Petrilli, 2008; Rich, 2004; Sutton & Thompson, 2001). Think tanks—and to some extent advocacy organizations—conduct research that focuses on issues of special interest, and disseminate their findings through lobbying activities and the media (Jewell & Bero, 2008; Manna & Petrilli, 2008; Rich, 2004). Of concern to some policymakers and practitioners is the credibility of think tanks and advocacy organizations if they have a vested interest in the outcomes of the research they are conducting, interpreting, and disseminating (Jewell & Bero, 2008; Manna & Petrilli, 2008; Rich, 2004).

Feldman and colleagues (2001) found a wide range of “brokering organizations” that serve as middlemen between the producers of research and the end users: government agencies, foundations, university research centers, for-profit and nonprofit research centers, individual researchers, constituent organizations, and bridging organizations (such as the national academies). The organizations have developed their own brokering capacities and constituencies, and differ in funding as well as in research content.

Activities of intermediaries

In his 2008 conceptual discussion of intermediaries, Sin divided their activities into five roles:

1. Cross-pollinators
2. Matchmakers
3. Translators and processors
4. Providers of multiple dissemination routes
5. Articulators of user perspectives

According to Sin, cross-pollinators have connections with a variety of groups and can see opportunities to broker information between and among the groups. Matchmakers bring the researchers and users together to facilitate meetings and other activities to foster collaborative relationships, and bring potential partners together. Translators and processors translate information to make it understandable for the user group. Providers of multiple dissemination routes use different vehicles of communication to get the information out. And articulators of user perspectives promote better communications between the research and user groups by bringing information back to researchers on the needs of the user groups.

Other studies have reported that policymakers and practitioners use intermediaries to help promote and facilitate the use of evidence in a number of ways:

- Acquiring research information through journals of membership organizations (Biddle & Saha, 2002; Hemsley-Brown & Sharp, 2003; Huang et al., 2003; Ratcliffe et al., 2004)
- Relying on informal contacts with colleagues (Feldman et al., 2001; Jewell & Bero, 2008; Ratcliffe et al., 2004; Sutton & Thompson, 2001)
- Using visiting scholars to talk with school boards and district and school staff members (Corcoran, 2003)
- Translating research into materials and trainings that are disseminated through professional networks (Bartholomew et al., 2003)
- Tapping into “trusted sources” with knowledge of local and state contexts (Feldman et al., 2001; Jewell & Bero, 2008; Sutton & Thompson, 2001)
- Inviting members of think tanks and researchers to participate in state task forces and commissions and to testify at federal hearings (Coburn, 2005; Jewell & Bero, 2008; Manna & Petrilli, 2008; Rich, 2004; Weiss, 1989)

Intermediaries also serve as a resource in addressing critical issues that have surfaced in studies on using research evidence. These include ways to improve access, timeliness, usability, credibility, relevance, and impartiality (Biddle & Saha, 2002; Corcoran, 2003; Feldman et al., 2001; Hemsley-Brown & Sharp, 2003; Huang et al., 2003; Jewell & Bero, 2008; Rickinson, 2005; Sutton & Thompson, 2001).

Improving the function of intermediaries

Some overall strategies resonated across the studies for increasing the brokering activities of intermediaries and improving their effectiveness:

- Converting research into simplified, user-friendly reports, weaving in illustrations, stories, and implications for action (Higgins, 2001; Huang et al., 2003; Sutton & Thompson, 2001)
- Increasing accessibility through a variety of more sophisticated mechanisms (Feldman et al., 2001; Hemsley-Brown & Sharp, 2003; West & Rhoton, 1994)
- Helping to manage the overwhelming amount of information (Jewell & Bero, 2008; Sutton & Thompson, 2001)
- Bridging the gap between researchers, policymakers, and practitioners, including strengthening capacity to anticipate relevant emerging issues (Canadian Health Services Research Foundation, 2003; Hemsley-Brown & Sharp, 2003; Manna & Petrilli, 2008; Ratcliffe et al., 2004)
- Building the capacity of states, districts, and schools to do their own data collection, analysis, interpretation, and research (Feldman et al., 2001; Kerr et al., 2006; Means et al., 2009)
- Helping to reframe policy issues to better use available research (Jewell & Bero, 2008)
- Surveying the range of research findings on important questions, creating consolidated research evidence, and identifying areas of convergence and disagreement (Feldman et al., 2001; Jewell & Bero, 2008).

How did study participants describe the roles of research intermediaries?

Intermediaries, in the form of research organizations, professional organizations, peers, constituents, and other individuals, are the most frequent conduit to research for informing educational policy and practice decisions. The research literature describes various roles of intermediaries in using research evidence, types of intermediaries, activities of intermediaries, and how their functions might be improved. While the study participants were less specific in their discussion of intermediaries, they did not contradict anything presented in the literature. What is clearly apparent from our study is that intermediaries (in one form or another, and including peers) are the most commonly sought out source of research evidence for decision making by policymakers and practitioners. Intermediaries are seen as the most important component in the process of accessing, understanding, and applying research to decisions related to policy and practice.

According to a member of CCSSO, *“There is a critical point of translating research into a language of educators—away from the scientific research language: a way of making the bridge and not losing the potency of the message, but say it in a way that is understandable.”* That sentiment was echoed by both a focus group member from NSBA, who remarked, *“Tell me in a way that I can understand,”* and a member of AASA, who made a case for “de-geeking” research: *“I think sometimes ... you have to have a certain level of skill to really understand [research].”*

Trusted individuals

As previously discussed, there is a small group of trusted individuals within intermediary organizations who enjoy a special relationship with policymakers and practitioners. These individuals may operate within all three realms of the research process—acquiring, interpreting, and applying research—or in only one or two stages.

In the acquisition stage, trusted individuals are the ones decisionmakers go to first, when time is of the essence, or when they want to know the most important or most applicable research for their needs. In the words of a CCSSO member, *“We go to noted leadership on an issue.”*

In the interpretation stage, trusted individuals assist in processing/interpreting and translating the research into practical, understandable terms for consideration. As a representative of ASCD remarked, *“Trusted individuals—either as members of groups and organizations ... or alone—are an important source of research and opinion.”*

In the application stage, trusted individuals often speak from experience, not in research settings, but in what are considered to be “real-life” situations and contexts. They help with the practical application of research into practice. According to a study participant from ASCD, *“We also just network with people who have the same job. I trust them to be telling me when something really works or not.”*

III.

Summary and Suggested Questions for Future Research

This study allowed policymakers and practitioners from across the United States to describe their experiences and voice their opinions on how they acquire, interpret, and use research evidence to inform policy and practice. Data were collected via interviews and focus groups and from these sessions six overarching themes emerged. These are each briefly summarized below; how participants' responses corroborated the literature is noted; and research questions for future study are suggested.

THEME I: FACTORS THAT INFLUENCE CHANGE IN EDUCATIONAL POLICY AND PRACTICE

In the discussion of factors that influence change in educational policy and practice, participants noted factors that both facilitate *and* impede change, as well as factors that serve as strong facilitators *or* strong barriers. Study participants asserted that political perspectives, public sentiment, potential legal pitfalls, economic considerations, pressure from the media, and the welfare of individuals all take precedence over research evidence in influencing decisions. In focus groups and interviews, participants did not mention any “breakthrough research” nor did they cite any findings that they felt had a dramatic effect on practice or policy. The study participants believe that there is a gulf between research design and real-world practice, and that research findings have limited applicability to their local contexts. In examining the outcomes of both the research literature and our study findings, we found five common elements that serve as barriers and/or facilitators of change: leadership, resources, policy mandates, community expectations, and political forces. These elements suggest the following questions for further study by researchers and their sponsors:

- How can researchers take into account facilitators of change when formulating their research questions?
- How can researchers recognize the influence of barriers to change when formulating their research questions?

THEME II: TYPE OF EVIDENCE AND HOW IT IS USED

In this discussion, participants were asked to describe how they use evidence to inform educational policy and change and also about the types of evidence they use. The study revealed a surprising absence of interest by policymakers and practitioners in using research evidence. In fact, focus group members and interviewees exhibited a high degree of skepticism about the value of research. And, they did not draw a distinction between evidence based on empirical findings and “research findings” derived from the media, popular professional journals, the experiences of others, gut

instinct, and their personal experience. In looking at both the research literature and the study findings, we found five common types of evidence used to inform educational policy and practice: research evidence, local data, public opinion, practice wisdom, and political perspectives. These elements suggest the following questions for further study by researchers and their sponsors:

- How does research evidence fit into the broader milieu of all evidence used by practitioners and policymakers?
- Specifically, how can researchers consider the application of their findings within the context of other sources of evidence?

THEME III: BARRIERS TO USING EVIDENCE

When asked to discuss the barriers encountered when using evidence, participant responses centered on either the research itself or the users of the research. For example, study participants often acknowledged their lack of sophistication in acquiring, interpreting, and applying research. Between our study findings and the literature, we identified five common elements that serve as barriers to the use of research evidence: volume of research, relevance, utility, accessibility, and user capacity. These elements suggest the following questions for further study by researchers and their sponsors:

- Is there a role researchers can play in helping policymakers and practitioners become more competent, confident consumers of research evidence?
- How can researchers organize research evidence in a more accessible, relevant, and timely manner?

THEME IV: FACILITATORS TO USING EVIDENCE

While some factors may impede the use of evidence, other factors may facilitate it. For this discussion, participants were asked about the characteristics of the research, researcher, or the issues that may prompt them to use research evidence in their educational decisions. In looking at both the research literature and the study findings, we found three common elements that facilitate the use of evidence: trusted relationships among researchers, users, and/or intermediaries; the quality and format of the research evidence; and organizational structures that promote active involvement of research evidence users. These elements suggest the following questions for further study by researchers and their sponsors:

- How can researchers involve policymakers and practitioners in helping to formulate research questions to address users' needs?
- What role can researchers play in helping policymakers, practitioners, and their intermediaries/translators easily access and apply research findings?

THEME V: SPECIFIC SOURCES OF RESEARCH EVIDENCE USED

When asked to identify the specific sources they turn to when acquiring research evidence, study participants acknowledged that they use scholarly research journals and published research reports as sources of evidence, but they admitted to relying more heavily on other sources. Between the literature and our study findings, we found five common sources of research evidence used in educational decision making: publications, conferences, professional and research organizations, and local research evidence. These elements suggest the following questions for further study by researchers and their sponsors:

- How can researchers work with policymakers and practitioners to identify their preferred sources of research evidence?
- What other venues, in addition to research journals, should researchers consider for disseminating their findings to policymakers and practitioners?

THEME VI: THE ROLE OF INTERMEDIARIES

While not originally intended to be a focus of the study, one factor that emerged as a central feature to the research utilization process was the role of intermediaries. Throughout our focus group discussions and interviews, participants repeatedly referred to their reliance on intermediary organizations and trusted individuals—alone and within those groups—to help them acquire, interpret, and/or apply research evidence. From the responses we heard, it appears that intermediaries are in a prime position to help users aggregate, translate, and apply research evidence directly to specific, highly local issues. Examination of both the literature and our study suggest that intermediaries play an important role in how policymakers and practitioners access, understand, and apply evidence. As a result, the following research question is suggested for further study by researchers and their sponsors:

- How can researchers and intermediaries collaborate to ensure that policymakers' and practitioners' needs are addressed and that research evidence can be more easily accessed, understood, and applied?

FINAL THOUGHTS

The authors hope that the opinions and perceptions gathered in this study help researchers consider future areas of inquiry into the use of research evidence. By better understanding policymakers' and practitioners' decision-making process and the role of research evidence in those decisions, researchers may ultimately be able to build stronger connections to their work and how it is used in policy and practice.

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Appendix A: Summary of Group Demographics

Total *n* for all groups = 65 (55 from associations & 10 congressional staff members)

| AGE RANGE | CCSSO | NCSL | AASA | ASCD | NSBA | SUMMARY |
|-----------|---------|---------|----------|---------|---------|----------|
| 21-30 | 0 | 0 | 0 | 2 (13%) | 0 | 2 (4%) |
| 31-40 | 0 | 0 | 0 | 6 (38%) | 0 | 6 (11%) |
| 41-50 | 2 (14%) | 1 (13%) | 0 | 4 (25%) | 4 (33%) | 11 (20%) |
| 51-60 | 8 (57%) | 6 (75%) | 5 (100%) | 4 (25%) | 7 (58%) | 30 (55%) |
| 61-70 | 4 (29%) | 1 (13%) | 0 | 0 | 1 (8%) | 6 (11%) |

| GENDER | CCSSO | NCSL | AASA | ASCD | NSBA | SUMMARY |
|--------|---------|---------|---------|----------|---------|----------|
| Male | 7 (50%) | 2 (25%) | 4 (80%) | 14 (88%) | 8 (67%) | 35 (64%) |
| Female | 7 (50%) | 6 (75%) | 1 (20%) | 2 (13%) | 4 (33%) | 20 (36%) |

| TITLE | CCSSO | NCSL | AASA | ASCD | NSBA |
|-------|---|---|-------------------|---------------------------------|------------------------------|
| | Deputy supt. or commis- sioner 13 (93%) | Federal affairs or counselor 2 (25%) | Supt. 5 (100%) | Teacher 11 (69%) | Board member 12 (100%) |
| | Dept. cabinet secretary 1 (7%) | Senator 4 (50%) | | Curriculum coord. 5 (31%) | |
| | | Represent- ative 2 (25%) | | Principal 1 (6%) | |

| YEARS IN CURRENT POSITION | CCSSO | NCSL | AASA | ASCD | NSBA | SUMMARY |
|---------------------------------|---------|---------|---------|---------|---------|----------|
| Fewer than 1 | 1 (7%) | 0 | 0 | 0 | 0 | 1 (2%) |
| 1-5 | 9 (64%) | 0 | 4 (80%) | 5 (31%) | 1 (8%) | 19 (35%) |
| 5-10 | 4 (29%) | 1 (13%) | 1 (20%) | 5 (31%) | 3 (25%) | 14 (25%) |
| More than 10 | 0 | 7 (88%) | 0 | 6 (38%) | 8 (67%) | 21 (38%) |
| Mean | 4.0 | 12.4 | 3.8 | 9.1 | 10.9 | 8.2 |
| <i>n</i> | 14 | 8 | 5 | 16 | 12 | 55 |

Washington, D.C., interviews with congressional staff members

Staff Assignment

House staff members: 5 (50%)

Senate staff members: 3 (30%)

NGOs with experience as congressional staff members: 2 (20%)

Gender

Male: 5 (50%)

Female: 5 (50%)

Education Experience

Experience in education: 2 (20%)

Immediate family in education: 2 (20%)

No experience in education: 6 (60%)

Appendix B:

Focus Group Questioning Guides

Reminder to facilitator: The research question is ...

We want to better understand when, how, and under what conditions research evidence is used in policy and practice that affect youth, and how its use can be improved.

Interview Guide

Introduction:

Thank you for coming today. We want to take the next 90 minutes to engage you in a conversation about educational change. We are conducting similar conversations with several other groups of educational practitioners and policymakers.

Dr. Nelson and I work at NWREL. This part of our work is to provide information to the William T. Grant Foundation as they plan for some future work.

We will be audio recording today's conversation so that it can be transcribed and analyzed more fully. We will not be using names, though we may use some direct quotes to more accurately report this discussion.

As is common with focus groups, we want to focus on the richness of your discussion. As facilitator, I will provide the group with as little direction as possible, while still helping us explore our research questions. We will be happy to answer questions about our task at the end of the focus group discussion.

POLICY GROUP—CCSSO, NSBA, NCSL

As a mind-set, I would like each of you to think for a few minutes about a recent educational policy (or legislation) that you were involved in establishing in your state or district. Some examples might include a new program to help struggling schools, a new health education initiative such as antismoking education, an increase in graduation requirements, or a move to alternative scheduling.

Theme I: Factors that facilitate and impede change

- A. What factors bring about new policy, or changes in policy?
- B. We've talked about what facilitates change, now let's talk about what impedes or constrains changes in educational policy.

Theme II: Ways in which research influences policy changes

- A. When developing policy, what kinds of information do you seek out?
- B. What sources of information do you use most often in developing policy?
- C. Please talk about the role research plays (and to what degree) in educational policy change.

Theme III: The connection between evidence and decision making

- A. Under what conditions does scientifically based research inform your educational policy making?
- B. Please talk about some times when scientifically based research is NOT used in policy making.

Theme IV: Sources and ways to make research more useful/informative

- A. What types of research are most helpful to you in making policy decisions?
- B. What could be done to make research information more useful to you in policy making?
- C. What do we know about conditions under which scientific evidence is being successfully used to inform decisions about educational policy and practice?

Alternate Questions:

- Alt. A. How participants think and feel about sources and uses of information to address those decisions.
- Alt. B. What factors or individuals influence practice and policy-making decisions?
- Alt. C. To you, what is “research”?
- Alt. D. How participants think and feel about sources and uses of information to address those decisions.
- Alt. E. How do you go about making policy/practice decisions?
- Alt. F. What factors or individuals influence practice and policy-making decisions?
- Alt. G. Where do you go to get research information when making a decision?

Closing Question:

Our research goal is *to better understand when, how, and under what conditions research evidence is used in educational policy and practice, and how its use can be improved.*

What important factors do we need to note, that have not been discussed yet?

PRACTITIONER GROUP—ASCD, AASA

As a mind-set, I would like each of you to think for a minute about a recent initiative, program, or practice that you were involved in establishing in your school or district. Some examples might be adoption of a new science program, adoption of a full-day kindergarten program, a new behavior management program/practice, a new professional development program, or a move to block scheduling.

Theme I: Factors that facilitate and impede change

- A. What factors bring about new policy, or changes in policy?
- B. We’ve talked about what facilitates change, now let’s talk about what impedes or constrains changes in practice.

Theme II: Ways in which research influences policy changes

- A. When considering new practices, what kinds of information do you seek?
- B. What sources of information do you use most often in adopting new practices?
- C. Please talk about the role research plays (and to what degree) in educational practice.

Theme III: The connection between evidence and decision making

- A. Under what conditions does scientifically based research inform educational practice?
- B. Please talk about some times when scientifically based research is NOT used in changing practices.

Theme IV: Sources and ways to make research more useful/informative

- A. What types of research are most helpful to you in making decisions about new practices?
- B. What could be done to make research information more useful to you in decision making?
- C. What do we know about conditions under which scientific evidence is being successfully used to inform decisions about educational policy and practice?

Alternate Questions:

- Alt. A. How participants think and feel about sources and uses of information to address those decisions.
- Alt. B. What factors or individuals influence practice and policy making decisions?
- Alt. C. To you, what is “research”?
- Alt. D. How participants think and feel about sources and uses of information to address those decisions.
- Alt. E. How do you go about making policy/practice decisions?
- Alt F. What factors or individuals influence practice and policy-making decisions?
- Alt. G. Where do you go to get research information when making a decision?

Closing Question:

Our research goal is *to better understand when, how, and under what conditions research evidence is used in educational policy and practice, and how its use can be improved.*

What important factors do we need to note, that have not been discussed yet?

CONGRESSIONAL STAFF INTERVIEWS

The Northwest Regional Educational Laboratory, in partnership with the Center for Knowledge Use in Education, is conducting conversations with education policymakers and practitioner groups to explore the role of research in educational policy formulation at the federal, state, and local levels. This study is being undertaken through the support of the William T. Grant Foundation. In addition to congressional staff, we are also interviewing representatives from:

- Council of Chief State School Officers
- National School Boards Association
- National Council of State Legislatures
- Association for Supervision and Curriculum Development
- American Association of School Administrators

Our research goal is to better understand the role research evidence plays in informing both congressional authorization and appropriation of programs that affect youth and education.

Our questions for you are:

1. How does research evidence enter the policy-making process?
2. What types or sources of research are used?
3. What factors facilitate and impede the use of research?
4. What other sources of information are used in lieu of research evidence?

We would like, with your permission, to digitally record our conversation so that it can be accurately transcribed for our analysis. No quotes or attribution will be used. Your comments will be treated as confidential. Digital recordings will be erased after transcription.

If you should have follow-up questions, please feel free to contact us:

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James Leffler, Ed.D.
Program Director
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Appendix C:

Sources of Evidence Cited by Participants

Adolescent Literacy Journal, American Institutes for Research
American Association of School Administrators
American Educational Research Association
American Federation of Teachers
Association for Supervision and Curriculum Development
Brain Research Institute, San Diego, CA
Center on Education Policy
Chard, David
Chicago Public Schools Research Department
Chicago Tribune
Coalition of Essential Schools
Comprehensive Assistance Centers
Congressional Research Service
Cooper Institute
Council of Chief State School Officers
Darling-Hammond, Linda
Education Commission of the States
Educational Leadership (journal)
Education Trust
Education Week
Elmore, Richard
Education Resource Information Center (ERIC)
Florida Center for Reading Research
Florida State University
Francis, David
Government Accountability Office
Goldhaber, Dan
Google
Harvard University
Institute of Education Sciences
International Reading Association
JBHM Education Group
Johns Hopkins University
Knowledge Works
Meadow Center for Preventing Educational Risk
Mid-continent Research for Education and Learning
National Center for Education Statistics
National Conference of State Legislatures
National Education Association
National Institute of Health
(National) Parent Teacher Association
National School Boards Association
National Institute of Child Health and Human Development
NEOLA
New York Times

North Central Regional Educational Laboratory
Northwest Regional Educational Laboratory
Office of Management and Budget
Ohio County Prosecutor's Office
Ohio Department of Education
Ohio School Boards Association
Our Iceberg Is Melting: Changing and Succeeding Under Any Conditions by
John Kotter, Holder Rathgeber, Peter Mueller, and Spenser Johnson
Pennsylvania School Boards Association
Phi Delta Kappan
RAND
Reading First Impact Study
Reading Recovery
Regional Educational Laboratory—South West
Rice University
Schielack, Jane
Southern Methodist University
Southern Regional Education Board
Texas A&M
Times Center
University of Houston
University of Texas, Children's Learning Institute
University of Washington
U.S. Department of Health and Human Services
Vanderbilt University
Vaughn, Sherrod
Wagner, Tony
Washington Attorney General's Office
Washington State Office of Superintendent of Public Instruction
Washington Post
What Works Clearinghouse



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