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Brokering Inequity: Knowledge Distribution as Policy Limitation

Jesslyn Roebuck Hollar

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Jesslyn Roebuck Hollar

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Keywords*:* Intermediary organizations | knowledge brokers | state equity plans | Excellent Educators for All | human capital management | effective educators

In July 2014, the U.S. Department of Education (ED) announced a new initiative to ensure all students have equal access to a quality education. Dubbed Excellent Educators for All, the initiative was designed to "help states and school districts support great educators for the students who need them most" (U.S. Department of Education, 2014, para. 1). Excellent Educators for All required state education agencies to submit equitable access plans. The equitable access plans were to detail the state's gaps in access to experienced and qualified teachers; identify root causes contributing to equity gaps in teacher distribution; and propose strategies to resolve the inequitable distribution of highly-qualified, inexperienced, and out-of-field teachers. To support states in their efforts, ED funded two intermediary organizations (IOs). These two intermediary organizations (IOs) provided technical assistance to state education agencies during the process. By the end of 2015, ED approved equity plans developed by all 50 states, the District of Columbia, and Puerto Rico.

Although ED encouraged states to develop strategies that would work for their unique state contexts with input from stakeholders, ED sponsored two IOs to support state education agencies through knowledge-sharing and technical assistance (U.S. Department of Education, 2014). By strategically funding IOs whose policy ideas accorded with ED's, ED influenced how states came to think about inequitable distribution. ED positioned these IOs as authorities on the matter of teacher quality and equitable access. This, in turn, enabled the IOs to mobilize the knowledge and ideas they and ED deemed "most valuable" to thinking about the issues of inequitable access. By consequence, over-reliance on particular types of knowledge sources within the policy network and translated through the network may have effectively limited certain states' policy options. This is a problem because one of the most central tenets of our education system is the ability of the system to respond to the local needs of children, parents, and communities (Gutmann, 1999; Long, 2014), yet, in this instance, local voices were obscured.

Education research on IOs has failed to sufficiently surface the machinery through which the mobilization of policy ideas to policymakers occurs, especially at the intersection of state and federal policy. In this paper I address these gaps in the literature on IOs by examining the mechanisms and means through which ideas are shared with state education agencies by federally-sponsored IOs. This study examines a previously unexplored, yet critical informal mechanism employed by the federal government to influence state teacher quality policy: the knowledge base mobilized by federally-sponsored IOs. This study uses document analysis and bibliometrics to examine the following questions:

1. What is the degree of overlap between the research base in states' equitable access plans and the resources promoted by federally funded IOs?
2. What are the dominant policy ideas in the resources provided to state education agencies by federally funded IOs?

Literature Review

A diverse set of literature and theory informs this study, including research on knowledge brokering and IOs. In this section, I review both bodies of literature in turn and include an emphasis on the relationship between the two bodies of research.

Knowledge Brokers

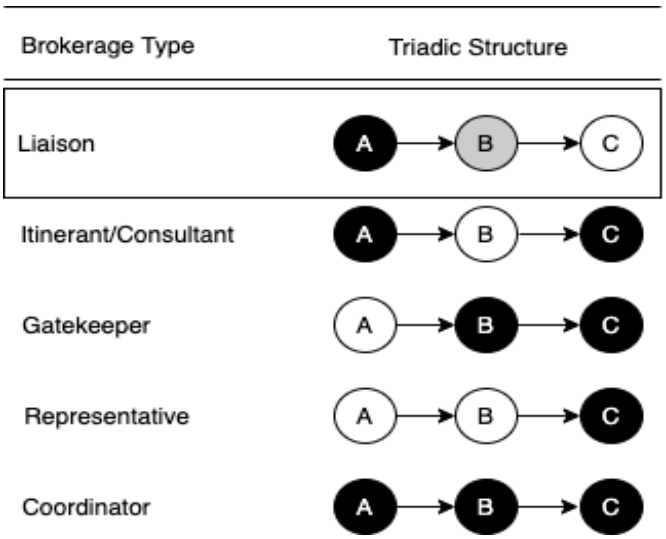
As a subset of the larger field of study known as knowledge mobilization, knowledge brokers manage all the activity that connects policymakers with researchers with the aim of promoting the use of research-based evidence in decision-making (Lomas, 2007). A central aim of knowledge brokers is to build bridges between research, policy, and practice to improve systems and solve intransigent social problems (Cooper & Shewchuk, 2015). In the literature on bridging the research-to-practice gap, brokers are defined by their roles, or what they do, and by their relationship to groups within a given network (Neal et al., 2015). When classified by roles, knowledge brokers operate as: (a) information managers, (b) linking agents, (c) capacity builders, (d) facilitators, and (e) evaluators (e.g., Glegg & Hoens, 2016; Turnhout et al., 2013; Ward et al., 2009).

When defined by relationships and positionality within a given network, the brokerage typology introduced by Gould and Fernandez (1989) remains a relevant orienting frame to knowledge brokering today (Neal et al., 2015). Gould and Fernandez list the five types of brokers as liaison, itinerant/consultant, gatekeeper, representative, and coordinator (1989). In this brokerage analysis and in Figure 1, B can be understood to represent the broker operating between two other individuals or parties (A and C, respectively). In this analysis, the roles are:

1) Liaison, where A, B and C each belong to a different group.
2) Itinerant/Consultant, where A and C belong to one group, and B belongs to another.
3) Gatekeeper, where A belongs to one group while B and C belong to another group.
4) Representative, where A and B belong to one group, and C belongs to another.
5) Coordinator, where all three (A, B, and C) belong to the same group.

Figure 1

Brokerage Typology



Note. Gould and Fernandez's (1989) types of brokerage and Neil, Adapted from Neal et. al. (2015). Different shades represent different groups or communities within a knowledge-sharing network.

Particularly relevant to this study is the liaison broker relationship as by their very definition, IOs are liaison brokers, operating between, but not as a part of, two groups. I turn now to the literature on IOs, particularly in the context of education practice and policymaking.

Intermediary Organizations

An IO is a liaison broker between researchers and practitioners, researchers and policymakers, and practitioners and policymakers. IOs are situated precisely where knowledge brokering occurs and are well-suited to carry out the functions of a knowledge broker. IOs exist in the space between at least two other parties (Honig, 2004). IOs translate and package research for legislators, agency staff, and service providers, and they broker relationships between researchers and policymakers (Tseng, 2012). IOs may include foundations, policy groups, think tanks, and private technical assistance providers. These intermediaries are not simply neutral, objective parties offering recommendations and providing syntheses of research. They bring their own agendas and priorities (Henig, 2008).

In education policy, IOs increasingly operate as knowledge brokers between the research and policy communities (Cooper & Shewchuk, 2015; Dobbins et al., 2009; Tseng, 2012) and are facilitating specific policy agendas (Lubienski et al., 2011; Lubienski et al., 2016; Ness & Gandara, 2014; Scott & Jabbar, 2014). To date, research has focused almost exclusively on IOs funded by philanthropic and ideological foundations. Specific education reforms promoted by IOs in education policymaking include charter schools (Au & Ferrare, 2014), school vouchers and choice (Goldie et al., 2014; Lubienski et al., 2009), and parent trigger laws (Ness & Gandara, 2014). What has not been explored, however, is the way in which the federal government

employs IOs to influence which policy ideas gain prominence at the state level in education policy.

Education research on knowledge brokering and IOs has failed to surface the processes of knowledge mobilization to policymakers, especially at the intersection of state and federal policy. Instead, research on IOs and the advocacy work of IOs has been largely descriptive in nature, tracking those IOs involved in particular policy ideas. Descriptive research has included studies of IOs as knowledge brokers between the research and policy communities (Cooper & Shewchuk, 2015; Dobbins et al., 2009; Tseng, 2012) and descriptions of how IOs are facilitating specific policy agendas (e.g. Lubienski, Scott & DeBray, 2011; Lubienski, Brewer, & LaLonde, 2016; Ness & Gandara, 2014; Scott & Jabbar, 2014). To date, research has focused almost exclusively on IOs funded by philanthropic and ideological foundations. Specific education reforms promoted by IOs in education policymaking include charter schools (Au & Ferrare, 2014), school vouchers and choice (Goldie et al., 2014; Lubienski, Weitzel, & Lubienski, 2009), and parent trigger laws (Ness & Gandara, 2014). Thus, my research addresses these gaps in the literature on IOs. It examines the mechanisms used by federally sponsored IOs to share policy ideas with state education agencies.

Theoretical Framework

Ideas matter in policymaking (e.g., Hall, 1989, 1993; Mehta, 2006, 2013) and yet, all ideas are not presumed to hold equal value or equal standing when it comes to policymaking. Ideas enable specific solutions to policy problems, and they constrain the solutions policymakers consider; in short, ideas are vehicles that allow actors to construct frames that legitimize policy proposals (Campbell, 1998).

Borrowing from the theoretical literature on policymaking, the concept of knowledge regimes advanced by Campbell and Pedersen (2015) guides this study. I take knowledge regimes to be the sense-making apparatus that assists with knowledge mobilization. Thus, knowledge regimes are the machinery within organizations and institutions that generate data, research, policy recommendations and ideas that influence public opinion and policymaking. As a consequence, the knowledge base circulated by IOs tasked with supporting state education agencies to develop their equitable access plans is one mechanism in the knowledge regime that sifted and winnowed policy ideas, elevating some policy ideas over others.

If it is the case that federally-funded IOs working as knowledge brokers in a policy network mobilize particular research and policy ideas for policymaking, then knowledge brokers play an additional role as policy influencers, particularly when operating between levels of government.

Conceptual Framework

While the ideational perspective to policymaking provides broad theoretical grounding for this study, the theoretical concept of knowledge regimes remains a black box and catch-all for surfacing the specific mechanisms operating to mobilize knowledge for policy (Campbell & Pedersen, 2015). Figure 2 illustrates the idea that knowledge regimes operate in between knowledge and policy. On one side, knowledge is generated and produced; on the other side, knowledge is used to develop policies (Weiss & Bucuvalas, 1980; Weiss, 1999). But, what are the mechanisms that assist in making sense of the knowledge so that the knowledge becomes relevant in the policymaking process? What actually occurs in this space occupied by knowledge

regimes remains undeveloped. What tools and mechanisms do knowledge brokers use to mobilize knowledge for policymaking? Which tools and which mechanisms are effective at mobilizing knowledge to influence policy?

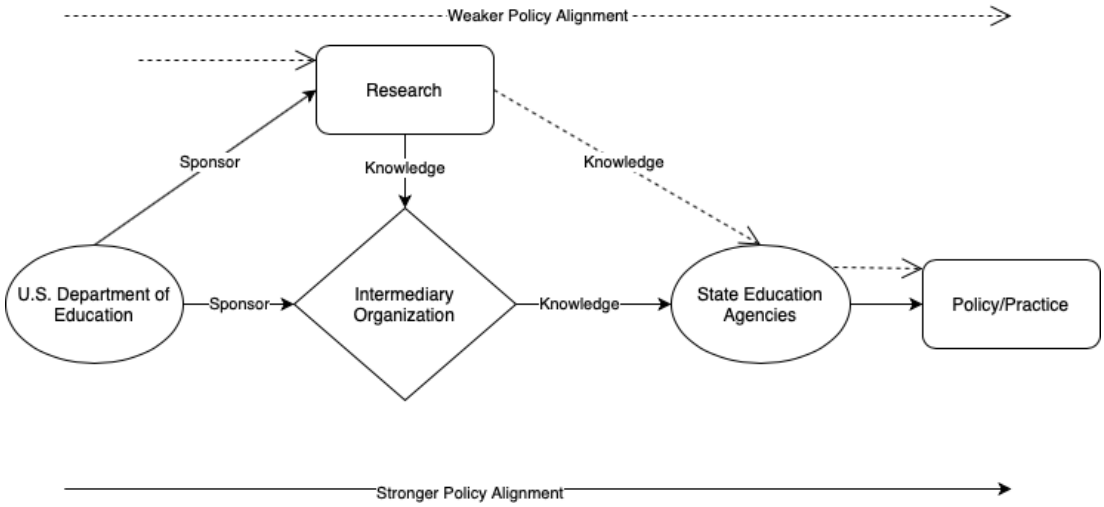
Figure 2

The Black Box of Knowledge Regimes

Note. This figure demonstrates the black box or catch-all of knowledge regime as advanced by Campbell and Pedersen (2015). Somewhere in the black box, ideas, research and problems are mobilized and influence policy.

Figure 3

The Influencer Role of Knowledge Brokers



Note. This figure presents a new role – influencer – for intermediary organizations serving as liaison brokers between knowledge producers and policymakers and between levels (federal and state) of government.

To better understand the mechanisms at play, the conceptual framework presented in Figure 3 is an attempt to peer into the black box of a knowledge regime influencing policies around the equitable distribution of excellent educators.

Methods

This study uses bibliometrics in order to examine the case of federally-funded IOs

supporting states in the Excellent Educators for All initiative. Bibliometrics is used to explore the impact of a series of articles on the field or of a group of authors in the field. It is used to study patterns of publication in a field (De Bellis, 2009). Bibliometric techniques can trace the diffusion of ideas in a body of literature (Osareh, 1996). Even though the field of library science employs bibliometrics frequently, and similar analyses have been conducted in other fields as well (White, 2011), bibliometric analyses remain rare in the field of education policy (Goldie et al., 2014).

As a methodology, bibliometrics incorporates different forms of analysis, including citation analysis, co-citation analysis, keyword occurrence analysis, co-authorship analysis, and co-word analysis (Van Eck & Waltman, 2014). Citation analysis is one of the most common methods used in bibliometrics (Osareh, 1996). It is used to obtain insight on the knowledge base and intellectual structure, or idea network, of research (Culnan, 1986; Pasadeos et al., 1998; Small, 1978).

A citation analysis of the knowledge in a bounded network makes sense. After all, a "citation is the representation of a decision made by an author who wants to show the relation between the document he is writing and the work of another (at a particular point)" (Osareh, 1996, p. 152). Knowledge brokers' patterns of citation, especially those patterns of oft-cited knowledge in the federally-funded support network, should indicate which policy ideas were the most salient in states' equitable access plans as well as which ideas, by virtue of not being cited with nearly as much frequency, were sidelined.

Case Selection

Using the Excellent Educators for All initiative as a case, this study examines the influence of IOs operating between state and federal education agencies. The Excellent Educators for All initiative occurred just prior to the reauthorization of Elementary and Secondary Education Act as the Every Student Succeeds Act (ESSA). ESSA has been lauded as a piece of legislation that returns local authority over education to states and rolls back the influence of the federal government on education decisions (Balingit & St. George, 2016). Thus, this initiative presents a case through which to examine the role of ED amidst criticism of federal encroachment on education policy historically considered the purview of the states.

Intermediary Organizations

The two federally-funded IOs examined in this case were purposefully selected because they received federal funding to support state education agency personnel to develop states' equitable access plans.

The first IO is called Equitable Access Support Network (EASN). It is managed by Advanced Engineering Management Corporation (AEM Corporation). The predecessor of EASN is the Reform Support Network. The Reform Support Network, also managed by AEM Corporation, was a key IO supporting states in their applications for Race to the Top.

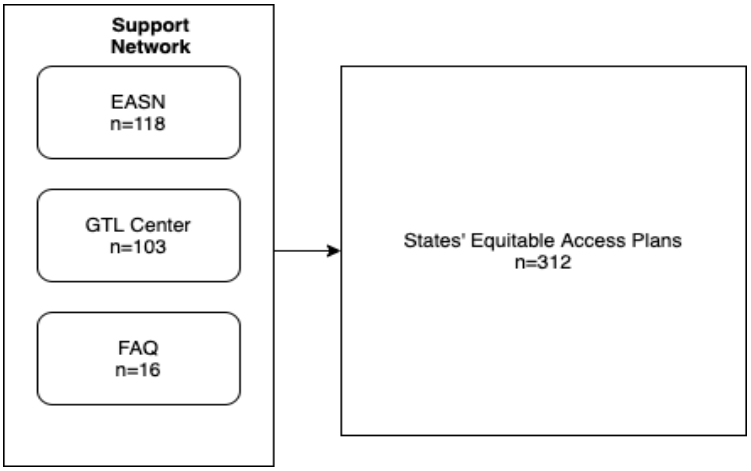
The second IO is the Center on Great Teachers and Leaders, also referred to as the GTL Center. The GTL Center is managed by the American Institutes for Research (AIR). AIR also manages the National Center for the Analysis of Longitudinal Data in Education Research (CALDER).

Data Collection and Procedures

Data were collected from four central locations in the network: (a) the EASN website, (b) the Center on Great Teachers and Leaders' website, (c) the U.S. Department of Education's significant guidance document (FAQ), and (d) states' equitable access plans. Document collection included: (a) 118 documents on EASN's website; (b) 103 documents from GTL Center; (c) 16 citations in the FAQ, and (d) 312 citations from 30 state equitable access plans. Figure 4 shows the data collection within the support network.

Figure 4

Data Collection



Note. Document collection came from the support network (EASN, GTL Center, and the FAQ) and the Citation Record of States' Equitable Access Plans.

For each resource, I noted citation data including the author(s), resource title, year of publication, location of first publication, the first author's affiliation(s), the knowledge sponsor (i.e. organization or center sponsoring the research, but not necessarily funding it), and the knowledge funder, if known.

Citation analysis began with each location in the network. In each location, I noted which types of data, authors, and affiliations were cited more than others. After this location-specific analysis, I mapped the relationship between state citations and EASN, the GTL Center, and the FAQ. Here I noted citation patterns across the locations.

Small (1978) advanced the idea that repeatedly cited articles serve as convenient shorthand for larger concepts and ideas. Thus, reference to one article provided credibility to the entire body of work by the same author. For instance, while the GTL Center cited one article and five of states' equitable access plans reference the same article, any additional citations in the states' equitable access plans to that same author—even when not referenced by the GTL Center—may have been influenced by the GTL Center's initial reference. To collect this set of data and to understand the influence of the policy network citations upon states' equity plans, I noted where states' equitable access plans cited the same author(s) as referenced in at least one or more of the locations (i.e. EASN, GTL Center, FAQ).

Limitations

There are two limitations to my methods of data collection and procedures for this study. First, only 30 out of the 52 equity plans submitted for approval to ED contained references to their knowledge base. As such, I was not able to evaluate all 52 equitable access plans' records of citations. While this was an obstacle, I was able to collect 312 citations from 30 state equity plans to map to the knowledge base of EASN, the GTL Center, and the FAQ. Additionally, a second round of qualitative interviews with state education agency personnel would have provided further validation that the knowledge base referenced in state equity plans was influential in shaping the solutions named for implementation in the equitable access plans.

Findings

In their plans, state education agencies acknowledged an array of causes behind inequitable distribution; however, their solutions were decontextualized and reductive: hiring, firing, promoting, recruiting, developing and retaining teachers. Many of the strategies adopted for implementation may exacerbate inequities in teaching quality. For instance, a number of plans advocate the expansion of non-university teacher certification programs to address teacher shortage areas despite evidence to the contrary, which claims alternatively certified teachers are more likely to leave the teaching profession than traditionally certified teachers (Redding & Smith, 2016). Additionally, in the majority of the state teacher equity plans, policy solutions adopt stringent external accountability systems for teacher and principal preparation programs, including provisions that tie the valued-added scores of an educator preparation program's graduates to the program's effectiveness. One unintended consequence of such a strategy might be that it discourages educator preparation programs from engaging in deliberate community work and partnerships with schools serving marginalized communities and incentivize teacher preparation and job placement in wealthier and whiter schools.

The Brokered Knowledge Base

Government-sponsored IOs used each other's resources more frequently than outside resources. Even though resources beyond the IO network may have been able to offer different, varied perspectives, this policy network operated parochially in that government-funded IOs dominated policy learning across the support network. For example, many of the resources cited on EASN came from the GTL Center and EASN itself. The resources included materials related to talent development and human resource management along with material from The New Teacher Project (TNTP) promoting the use of teachers' value-added scores in measuring teachers' effectiveness. Outside of the federally-funded IOs, EASN relied on resources brokered by the two parent organizations of the federally funded IOs, AEM Corporation and AIR. In fact, nearly 40% of the resources on EASN are the result of knowledge brokered by AEM Corporation affiliates or AIR affiliates.

Specifically, select knowledge sponsors impacted the IOs' knowledge base more than others. One significant knowledge sponsor in this policy network is TNTP. With 16 citations, TNTP has the most frequently cited resources on EASN. TNTP's reports such as *The Irreplaceables, The Widget Effect, Shortchanged, Keeping Irreplaceables,* and *Unintended*

Consequences are all cited in EASN. The reports are focused on using teacher effectiveness scores as measured through teachers' value-added to enable what has been termed smart retention, meaning retaining only those teachers who have demonstrated high performance as measured by student achievement (Levin et al., 2005; The New Teacher Project, 2012a; The New Teacher Project, 2012b; The New Teacher Project, 2014; Weisberg et al., 2009; StudentsFirstNY, 2013).

To provide one example, the central argument in the policy advocacy report *The Irreplaceables* claims that not all teacher retention is good; rather, principals and district administrators ought to implement smart retention wherein they incentivize high-performing teachers to stay and low-performing teachers to leave. Like a number of education reform organizations, the policy advocacy report recommends strong evaluation systems and transparency around effectiveness. It also recommends eliminating current policies such as "last in, first out" and step salary schedules and replacing them with policies that use performance pay to reward the high-performers (The New Teacher Project, 2012b). Notably, TNTP is one of the most prominent organizations galvanizing the movement to reform approaches to talent management in education (Odden, 2011).

Economic analyses rather than organizational analyses constitute the bulk of the research base brokered to state education agencies. CALDER and the National Bureau of Economic Research (NBER) sponsored more than half of the working papers and policy reports in the policy network. These organizations rely on large, longitudinal data sets for their research, and their affiliated researchers typically employ quantitative research methods. According to a 2019 program report, NBER investigates education policy questions through economic analyses (Hoxby, 2019).

ED sourced the majority of peer-reviewed articles for its FAQ from economic or management journals rather than education journals, although there are education journals such as *Educational Researcher, Educational Policy,* and *Education Evaluation and Policy Analysis* and others that publish econometric studies. As such, ED views the problems and solutions to the inequitable distribution of teacher quality as an economic problem rather than a social, organizational, and cultural problem (Hollar, 2017). Consequently, the bibliographic record of the FAQ mirrors the prevailing policy ideas in EASN's resources: a focus on teacher recruitment and retention strategies with specific focal areas on the preparation, recruitment, and retention of principals and teachers. Figure 5 shows the knowledge sources mobilized for policymaking within the knowledge regime.

The Knowledge Base in States' Equitable Access Plans

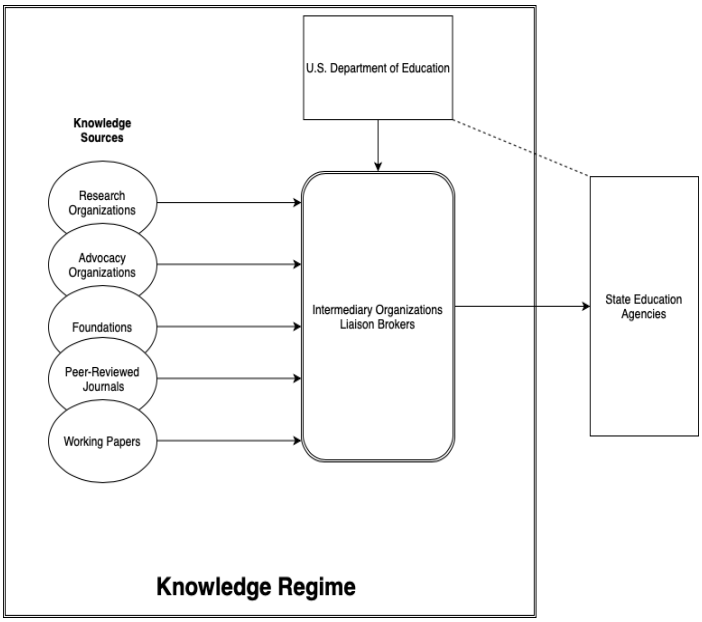
In 30 states' equitable access plans, citations inclusive of duplicate citations in states' equitable access plans totaled 312. A little over one third of these 312 citations (34%) were cited in more than one state plan. However, when repeat authors including duplicate citations were considered, the same 24 authors or organizations were responsible for producing 75% of the citations within states' equitable access plans. Notably, 12 of these 24 authors or organizations were affiliated with CALDER.

CALDER affiliates overwhelmingly direct the field of research cited in the plans, with 44% of the research cited in the plans produced from CALDER researchers and its affiliates. Additionally, authors affiliated with NBER, produced 7% of the research cited in the plans. More

to the point, NBER and CALDER researchers and affiliates produced 51% of the research cited in the plans.

Figure 5

Inside the Black Box of the Equitable Access to Excellent Educators Knowledge Regime



Note. This figure illustrates the flow of information, as determined through bibliometric analysis, from knowledge sources to IOs and then to state education agencies. It also illustrates the role of the U.S. Department of Education inside the knowledge regime as a sponsor of the IOs with an indirect influence upon the state education agencies.

Cohesion of Policy Ideas Across the Policy Network (IOs and State Education Agencies)

There are 81 (26%) overlapping citations in states' equitable access plans. Overlaps consist of citations in state's equitable access plans and citations by EASN, the GTL Center, the FAQ or some combination thereof. Thus, one quarter of the citations in states' equitable access plans are directly networked to these providers.

Twenty-six percent is likely an underrepresentation of the influence of the resources provided by the support providers on the citations in states' equitable access plans. Small (1978) advanced the idea that repeatedly cited articles serve as convenient shorthand for larger concepts and ideas. Using this logic, the reference by the GTL Center, the FAQ, or EASN of one article in an author's body of work provided credibility to the entire body of work by the same author. When considered in this way, of those citations in state plans networked to authors cited by the support organizations, CALDER affiliates produced 40% of the networked citations; NBER and CALDER together produced 51% of the networked citations. Thus, knowledge producers affiliated with just two knowledge sponsors (NBER and CALDER) generated more than half of the empirical research base behind the development of states' equitable access plans.

Analysis indicates a high degree of overlap between the research promoted by the federally-funded IOs and the research cited within state education agencies' equitable access plans. As such, the federally-funded IOs elevated research evidence that contained particular values and beliefs embodied as policy ideas and erased others.

Policy Ideas Promoted within the Policy Network

In the policy network, oft-cited articles may constitute the network's values. That is, repeatedly cited articles elevate particular policy ideas and sideline others. Table 1 provides an overview of the resources promoted by more than one support network provider (i.e., EASN, the GTL Center, and the FAQ).

Table 1

Resources cited by more than one support provider

Reference Citation	Publication	Publication Type
Aaronson et al., 2007	Journal of Labor Economics	Peer-Reviewed
Center for Education Policy Research, 2012	CEPR	Report
Friedman et al., 2011	NBER	Working Paper
Clotfelter et al., 2006	CALDER	Working Paper
DeMonte & Hanna, 2014	Center for American Progress	Advocacy Report
Glazerman & Max, 2014	ED, IES	Report
Kane et al., 2006	NBER	Working Paper
MetLife Foundation, 2013	MetLife	Survey
Rivkin et al., 2005	Econometrica	Peer-Reviewed Article
Sass et al., 2012	CALDER	Working Paper
StudentsFirstNY, 2013	StudentsFirstNY	Advocacy Report
The New Teacher Project, 2012	TNTP	Advocacy Report
Xu et al., 2012	CALDER	Working Paper

In the bulk of these resources, teachers' value-added measures constitute effectiveness or "good teaching" despite substantial critiques of using value-added measures for educator

evaluation (American Educational Research Association, 2015; American Statistical Association, 2014; Darling-Hammond et al., 2011). To build a case for the validity of value-added measures and to dismantle traditional methods of measuring teacher effectiveness, three of these resources serve as foundational articles for disregarding observed teacher characteristics, such as education, certification, and experience. In *What does certification tell us about teacher effectiveness? Evidence from New York City,* Kane et al. (2006) argue that the emphasis on certification status by policymakers, states and districts is misplaced: There is little difference in the academic achievement impacts of teachers by certification status (i.e. certified, uncertified, and alternatively certified). The authors believe that attention to teacher selection is important and write, "policies that enable districts to attract and retain high-quality teachers (or screen-out less effective teachers) have potentially large benefits for student achievement" (Kane et al., 2006, p. 43). Kane et al. (2006) argue that because neither certification status nor teacher attributes appear to have predictive power as to a teacher's effectiveness, districts should use performance on the job rather than initial certification status to improve average teacher effectiveness. One tool to measure teacher effectiveness, despite their "limited scope and potential malleability" is valued- added measures (Kane et al., 2006, p. 44). The authors believe that value-added measures are objective, and the data to construct them is already collected by most school districts.

In the second article titled *Teachers, Schools, and Academic Achievement,* Rivkin et al. (2005) refute the Coleman Report's claim that school or teachers do not matter for academic achievement. The authors argue that observed teacher characteristics, such as education level, certification, or experience, do little to indicate teaching quality and instead use valued-added student growth models to illustrate teacher effects on student growth. For Chetty et al. (2012), good teachers, as measured by teachers' value-added are shown to create substantial economic value.

In these three articles, policy recommendations include improving personnel policies with performance pay and designing accountability systems that focus on student outcomes rather than teacher inputs. The articles assert that rigorous certification requirements or education levels are not the proper policy prescription; rather, stricter attention to personnel policies such as hiring, firing, development, and promotion should be the focus. Such policies should also strive to increase the quality of teaching through the use of value-added measures, changes to salary structure, or teacher training.

Once policymakers disregarded observed characteristics (i.e. experience, education level, certification) as effective measures of teacher quality, output measures such as teachers' value-added measures became the spotlight for measuring teacher quality in these resources (Rivkin, et al., 2005; Chetty et al., 2012). Personnel policies that tie recruitment, assignment, and retention increasingly to teachers' value-added scores prevail. For instance, Aaronson et al. (2007) advocate attaching teacher pay more directly to teacher performance instead of to experience or degree level. Altering the way teacher and principal labor markets work is another policy idea advocated in *High-Poverty Schools and the Distribution of Teachers and Principals* (Clotfelter et al., 2006). Recommendations include instituting policies that will increase the overall supply of quality teachers in states by making it more attractive for teachers to teach in high poverty schools.

In the support network, strict attention to personnel policies surfaces again. Policy recommendations include implementing "smart retention" wherein principals and district administrators incentivize high-performing teachers to stay and low-performing teachers to leave

(Sass et al., 2012; The New Teacher Project, 2012a). Like a number of education reform organizations, *The Irreplaceables* advocacy report recommends strong evaluation systems and transparency around effectiveness along with revision to current policies such as last in, first out and step salary schedules in replace of retaining the highest-performing and paying them the most money to remain in teaching (The New Teacher Project, 2012b). Similarly, authors of the advocacy report *Unsatisfactory: The Distribution of Teacher Quality in New York City* recommend instituting merit pay, eliminating barriers to entry for college graduates, expanding school choice, public reporting, revising collective bargaining agreements and tenure policies such as last in, first out, and implementing more stringent educator evaluation and performance accountability systems (StudentsFirstNY, 2013). StudentsFirstNY claims these are *the* preferred mechanisms through which to rectify the inequitable distribution of teachers.

The policy ideas in these resources focus on talent management. The assumption inherent in them is that a tighter adherence to human capital management based on data and measures of teacher effectiveness will raise teacher quality. This operating belief is also central to the research priorities of CALDER. CALDER is one of the National Research and Development Centers funded through a $10,000,000 grant from the Institute of Education Sciences. AIR administers the grant to CALDER, which is notable because AIR also administers Quality Teachers and Leaders. CALDER has focused its research priorities on the relationship between state and district education personnel policies and student outcomes.

Conceptually, the six research priority topics identified for the five-year award are yoked by their focus on investigations that study state and district policies around human resource management and human capital. These research priority topics include investigations of how personnel policies around preparation, recruitment, induction, incentives, and supports contribute to teacher and student outcomes; the extent to which value-added estimates are correlated with additional measures of teacher performance like classroom observations and student outcomes; the influence of financial and non-financial factors on the distribution and mobility patterns of high-quality teachers and principals; the effect of policies on teacher retirement and layoffs to teacher quality; the effects of moving effective teachers in and out of schools as school turnaround and improvement strategies; and the policies and practices that affect students' college readiness (CALDER 3.0 New Initiatives, n.d.).

The overreliance upon knowledge sponsored by CALDER, which in turn is supported by AIR and ED sheds light on the nature of this knowledge regime. It indicates that the knowledge "valued" in the policy network explores teacher quality and inequitable distribution from a particular lens. This lens defines student learning as achievement on standardized achievement tests. It also indicates that the knowledge valued in the policy network is one that views individuals (i.e., teachers) rather than the systems, structures, organizations and social conditions that generate societal inequity as the locus of education reform policies.

Other research approaches explore issues of equity and equitable distribution from a more ecological perspective. Rather than focus on teachers as the sole factor impacting student achievement, ecological research explores the underlying ecology and organizational constructs of inequitable distribution. This includes examining issues related to the teaching and learning environment, including a teacher's level of autonomy, compensation, access to professional development, and classroom resources (Carver-Thomas & Darling-Hammond, 2017; Ingersoll, 2001; Simon & Moore Johnson, 2015). Yet, most of this research was left out of the research base elevated by ED, EASN, and the GTL Center.

Contrasting Cases and Alternatives

Although it is possible that the strategies in each state's plan evolved organically through authentic stakeholder engagement, for those states who cited the resources promoted through the policy network, the policy ideas inherent in those resources limited the array of viable policy options states elected to pursue.

To illustrate this point further, let me briefly discuss two state equity plans as contrasting cases. New York State's equitable access plan relies heavily upon citations from EASN and the GTL Center. All of the strategies to resolve the inequitable distribution of teachers are focused on talent management. In contrast, California used only one of the citations provided via the GTL Center: Johnson et al. (2012). Johnson et al. (2012) frame the problem of inequitable access less as a talent management problem than as an organizational and structural problem related to the conditions in which teachers work.

This alternative policy idea that the conditions in which teachers work is not a problem of talent management but rather an organizational and structural problem is reflected in California's strategies. For instance, California advances strategies around increasing teacher and leader induction and professional learning, equitably funding the state's public schools, and engaging collaboratively with parents and communities to improve conditions of teaching and learning (California Department of Education, 2015).

In contrast, even though California may have sought guidance and support from federally-funded IOs, the fact that California did not rely to any extent on the research promoted by the IOs is telling: California's strategies reveal a propensity of California Department of Education staff to engage in more autonomous analysis of the research independent of the dissemination of research by the federally-funded IOs (California Department of Education, 2015).

Discussion

With the understanding that the knowledge base elevated by federally-funded IOs focused on limited, largely economic, perspectives of teacher effectiveness and student achievement, state education agencies relying on the knowledge disseminated by EASN and the GTL Center ended up with equally narrow perspectives about the solutions they proposed. The federally-funded IOs acted as liaison brokers in their knowledge brokering.

These results matter because they illustrate that despite overtures by ED to encourage local state-based solutions to the inequitable distribution of teacher quality (e.g., by conducting stakeholder engagement sessions and root-cause analyses), the framing of the problems and associated solutions by EASN and the GTL Center carried more weight than localized expertise and locally-sourced solutions. Additionally, since EASN and the GTL Center elevated ideas related primarily to talent development and human resources management and sidelined others, more holistic, systemic, and organizational solutions were summarily sidelined. In effect, this examination of the knowledge base shows that the knowledge brokers framed the problem and solutions related to the inequitable distribution of teachers outside of the local communities and voices served by local education systems.

Although ED encouraged states to develop strategies that would work for their unique state contexts with input from stakeholders, EASN and the GTL Center supported state education agencies primarily through knowledge mobilization. Thus, without formal prescriptions of strategies, the overreliance on knowledge sources from economic and human resources

perspectives in the policy network and translated through the network may have effectively limited certain states' policy options.

In effect, as liaison brokers, the IO in this support network acted as influencers. While indeed these IOs managed the flow of information to state education agencies, they also influenced state education agencies' understanding of the knowledge base and which policy ideas were most relevant to crafting the equity plans. The role of knowledge brokers as information managers who disseminate, package, and translate knowledge is problematic. As an information conduit, knowledge brokers filter and focus the attention of policymakers on research presumed by the knowledge broker to be policy relevant and/or of sound evidence. Information managers can also operate as policy influencers. This dissemination function can mask efforts at policy advocacy (Knott & Wildavsky, 1980). Thus, in filtering information, knowledge brokers may also be positioning themselves as powerful policy advocates.

This study carried some limitations. First, examining the knowledge base cited within states' equity plans does not indicate degree of influence. In other words, just because a state education agency cited the same knowledge base and policy ideas promoted by the IOs does not mean that the state education agency used that knowledge base to validate the problems and solutions described in the state's equity plan. Second, as mentioned in the methods limitation section, not all state education agencies' equity plans contained references.

Recommendations for future study include adding a qualitative element to understand how state education agency personnel experienced the support provided by EASN. A qualitative study examining the processes state education agency personnel undertook to develop state equity plans would confirm or refute this study's findings: The knowledge base and policy ideas promoted by the federally-funded IOs did impact problem and solution identifications in state education agencies who accepted IO support. More practically, when it comes to "wicked" problems such as the inequitable distribution of excellent educators, states education agencies should accept offers of support by IOs with full awareness of the ways in which knowledge brokering by IOs may limit the array of solutions deemed possible for implementation.

Conclusion

The degree of overlap between the research base in states' equitable access plans and the resources promoted by federally-funded IOs was high with at least one quarter of the citations within states' equity plans overlapping with the citations brokered by the federally-funded IOs. The same authors and author affiliations (i.e., CALDER, NBER) were associated with more than half of the citations within the policy network.

Within the resources provided to state education agencies by federally funded IOs, dominant policy ideas include talent development and human capital management as key levers to resolve the inequitable distribution of excellent educators. To that end, many states' equitable access plans listed personnel policies aligned with talent development and human capital management, as *the* essential suite of strategies to resolve the inequitable distribution of excellent educators. These strategies mirror the policy ideas evident in the resources elevated by EASN, the GTL Center, and the FAQ.

Even though insufficient or poor working conditions are listed as primary root causes to nearly the same degree as root causes related to inefficient human capital management in the plans, there is a disproportionate number of strategies addressing human capital management when compared with strategies that address working conditions in states' equitable access plans

(Williams II et al., 2016). Thus, without directly telling the states how to think about developing their equitable access plans, by strategically funding IOs whose policy ideas accorded with those of ED, ED indirectly influenced how states came to think about inequitable distribution.

Furthermore, because ED publicly endorsed EASN and the GTL Center for states' equity plan work, these two IOs were powerfully positioned to sway state education agencies personnel's understandings of root causes and strategies to resolve the inequitable distribution of teachers. EASN and the GTL Center became influential knowledge brokers in this case, dictating which knowledge and ideas were most valuable to thinking about the issues of inequitable access.

This study offers insight into the role of knowledge brokers as influencers in educational policymaking, particularly in the context of state and federal power. The ways in which federally-funded IOs advanced policy ideas in line with federal policy priorities reinforces the importance of examining whose knowledge is shared and how, and ultimately, how this knowledge filters into state policy ideas around the inequitable distribution of excellent teachers. While others have discussed the role of IOs like philanthropic organizations on influencing policy agendas related to charter school policies and vouchers (e.g., Lubienski et al., 2011; Lubienski et al., 2016; Ness & Gandara, 2014; Scott & Jabbar, 2014), this study illustrates that IOs act as knowledge brokers not just between the research and policy or practice communities, but also between federal agencies and state education agencies, and they act as influencers, shaping the whose knowledge is deemed relevant to education policymaking.

This research has implications for knowledge utilization in educational policymaking, particularly in the context of state and federal power. The ways in which federally-funded IOs advance policy ideas in line with federal policy ideas reinforces the importance of examining whose knowledge is shared and how, and ultimately, how this knowledge filters into state policy ideas around the inequitable distribution of excellent teachers. In such a way, federally-sponsored IOs may enable ED, despite its relatively weak statutory role in education, to align state and federal policy agendas.

Author Note

Jesslyn R. Hollar, Ph.D, is the founder of Edology Consulting, an educational consulting company in Madison, WI and is a former faculty member in the School of Education at Edgewood College. Her research explores teacher education policy, knowledge utilization for policy and practice in education, teachers and teacher educators as troublemakers, and tools for knowledge translation to elevate critical knowledge, including the local knowledge(s) of families and communities, in educational policy and practice.

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