Connecting Research and Policy to Reduce Inequality

RUTH N. LÓPEZ TURLEY

Why did the Coleman Report and the decades of education research that it influenced not result in greater reductions in educational inequality? What can be done to ensure that future education research is more effective in this respect? This paper describes the significant disconnect between education researchers and policymakers, characterized by three problems: (1) researchers do not inform policymakers about the results of their research, (2) policymakers do not inform researchers about their policy goals, and (3) when policymakers and researchers do exchange information, they often do so in a highly political context in which many interests supersede the interests of students. However, important changes since the Coleman Report have created a context more conducive to effective collaboration, including a nationwide movement among researchers, policymakers, and funders to create more meaningful and effective partnerships. These changes present a unique opportunity for improving the connection between research and policy and reducing educational inequities over the next fifty years.

Keywords: educational inequality, research-practice partnerships, decision making

Commissioned by Congress in the Civil Rights Act of 1964, James Coleman's seminal work on educational inequality was the most ambitious national study on the condition of education to date, and not surprisingly, it had a tremendous influence on decades of education research that followed. However, as the papers in this issue have shown, educational inequities by race, ethnicity, and economic status stubbornly persist, despite countless research studies and the expenditure of many millions of research dollars. Significant victories ensued, but many researchers and policymakers would agree that educational inequalities and inequities have not been reduced sufficiently. Why did the Coleman Report and the decades of research that it influenced not result in more significant gap closures? More importantly, what can be done to ensure that current and future education research has a greater impact?

This paper focuses on the significant disconnect that persists between education research and policy, despite repeated efforts to bring the two together. First, I briefly describe the persistent gaps and the role of researchers and policymakers in maintaining them. Second, I describe the political context that impedes an effective connection between researchers and policymakers. Third, I describe some important changes that have created a better context for improving the connection between research and policy, including an emphasis on evidence-based decision-making with a local focus, funders' initiatives that support a movement away from the traditional

Ruth N. López Turley is professor of sociology at Rice University, director of the Houston Education Research Consortium, and associate director of the Kinder Institute for Urban Research.

Direct correspondence to: Ruth N. López Turley at turley@rice.edu, Rice University, 6100 Main St., MS28, Houston, TX 77005.

academic research model toward a partnership research model, and changing institutional incentives for academic researchers. These important changes are promoting a political context quite different from what existed fifty years ago—one that is primed for much better collaboration between researchers and decision-makers. Finally, this paper ends with several recommended approaches to seizing this moment to improve the connection between research and policy and reduce educational inequities over the next fifty years.

PERSISTENT GAPS IN EDUCATIONAL ATTAINMENT

Although educational attainment has improved over time for all groups, progress in closing the gaps between groups has stalled, and even regressed, relative to when we began documenting gaps with national assessment data in the early 1970s. All racial groups have experienced improvements in high school and college completion, but gaps between these groups remain significant. For example, the black-white high school completion gap declined sharply during the 1970s and 1980s, but the decline since then has been much slower and the black-white gap in college completion has actually grown since 1970, and sharply so since 1995 (National Center for Education Statistics 2013). In terms of income, achievement gaps based on the National Assessment of Educational Progress (NAEP) have grown significantly over the last three decades. For example, the reading achievement gap between the top and bottom 10 percent of the income distribution has increased substantially, from 0.9 of a standard deviation among those born in the 1950s, 1960s, and early 1970s to 1.25 standard deviations among those born just twenty to twenty-five years later (Reardon 2013). Finally, combining income and race for all school districts in the United States, sixth-graders in the richest districts are about four grade levels ahead of children in the poorest districts, and within districts there are very large gaps between white, black, and Hispanic students in a majority of districts across the country (Reardon, Kalogrides, and Shores 2016).

These persistent gaps surprised some astute observers of educational inequality. Adam Gamoran (2001) had optimistically predicted that inequality in educational achievement and attainment would remain stable by socioeconomic status but diminish by race because successes in one generation, he predicted, would produce even greater successes in the next generation. I was equally hopeful about this "virtuous cycle," but it did not take hold as expected. More recently, Gamoran (2015) has explained that a primary reason for this disappointment is that educational and socioeconomic gains do not pay off as well for blacks as they do for whites. This was corroborated by a study from the Federal Reserve Bank of St. Louis, which reported that although African Americans and Hispanics with four-year college degrees had a higher income and a much higher net worth in 2013 than those without degrees, between 1992 and 2013 the median real net worth of college-educated African Americans and Hispanics dropped by 56 and 27 percent, respectively, while the median real net worth of college-educated whites and Asian Americans increased by 86 and 90 percent, respectively, during the same time period (Emmons and Noeth 2015). These disparities in asset gains and losses have a substantial impact on the resources transferred from one generation to the next.

There are multiple reasons for the impeded progress in reducing inequality, but an important one, I propose, stems from the underlying disconnect between education research and policy. This disconnect is characterized by three problems: (1) researchers do not inform policymakers about their results, (2) policymakers do not inform researchers about their policy goals, and (3) when policymakers and researchers do exchange information with each other, it is often done in a highly political context in which many interests supersede the interests of students. As a result, not all academic researchers and policymakers believe that research should be used for policymaking, given the many dangers associated with research manipulation and the possibility that studies that do not support a preexisting viewpoint will be excluded. Although these dangers are real, I assert that research should be used for policymaking and that steps can be taken to promote its proper use. Under the right conditions, research can be an extremely informa-

tive tool for policymaking, it can help to secure resources for implementing effective policy, and it can even help to generate political will.

THE DISCONNECT BETWEEN EDUCATION RESEARCH AND POLICY

Although education researchers and policymakers often work together—as with the Coleman Report, which was commissioned by Congress—they are not typically linked in a manner that is conducive for collective impact. Three conditions foster this disconnect between research and policy: (1) academic researchers generally focus on informing other researchers of their results rather than decision-makers; (2) decision-makers generally do not have easy access to timely, context-specific research to inform their decision-making; and (3) decision-makers generally do not inform researchers of their research needs and sometimes even make data access difficult for researchers interested in analyzing their data. Ie consider each of these conditions in turn.

First, academic researchers typically have few or no incentives to take measures to ensure that decision-makers use their work. Instead, they are largely rewarded for publishing their work with the most prestigious academic publishers or in the most cited academic journals, which are read primarily by other academics, not by decision-makers. Many institutions even frown upon applied work, deeming it not as worthy as the intellectual pursuit of interesting questions without regard for what is popular at the moment. Basic research is certainly important and should continue, and publishing in academic journals should also continue, especially because the blind review process pushes authors to improve and polish their work in ways that they would not do otherwise. However, research universities should recognize and reward efforts to apply research in settings that could really benefit from it, such as state and local education agencies, and academics should not make publishing in academic journals their end goal but instead take additional steps to ensure that their research actually informs decision-makers.

Second, decision-makers in state and local education agencies often do not have access to academic research publications, as access can be very expensive. Even if they do, they generally do not have time to read lengthy research articles to stay current on the research literature, and they are hesitant to use research conducted in other regions with different populations. Also, decision-makers in school districts and state agencies often do not have adequate staff and resources to conduct their own research. Even urban school districts large enough to have their own research departments are typically understaffed and have to focus on reporting requirements rather than large-scale studies that could be used for decision-making and tackling long-standing problems. Furthermore, decision-makers often need access to independently produced research, as in-house research that reports favorable results is sometimes dismissed or viewed with skepticism by the public.

Finally, state and local policymakers generally do not inform researchers of their research needs and sometimes even make data access difficult for researchers interested in analyzing their data. The sensitive nature of student and teacher data certainly requires that data access be restricted, and education agencies must take security measures to protect their constituents' identities. However, the dangers associated with not sharing data are much greater than the dangers associated with doing so. With protective measures in place, data sharing greatly increases research capacity and capitalizes on the expertise of external researchers. Furthermore, data owners can and should place expectations on researchers to produce research that is timely and useful for the education agency providing the data. They can inform researchers of their most urgent research needs, they can request research briefs and presentations designed to inform their decision-makers, and they can request meetings to discuss research results, limitations, and implications.

THE IMPEDIMENTS OF THE POLITICAL CONTEXT

Although education researchers and policymakers do work together sometimes, they are not typically linked in a manner that is conducive to collective impact. When policymakers and researchers do work together, they must

often contend with a highly political context in which many interests compete for their attention besides the interests of students. Those interests, such as job security, career advancement, and access to funding, apply equally to policymakers and researchers, as well as to many other stakeholders. Policymakers additionally have to contend with important constituents such as boards, state and local organizations, and influential parents who do not necessarily have in mind the interests of all students.

For example, a task force in one of Houston's poorest neighborhoods produced a report highlighting a substantial inequity in the student funding formula, which allocated significantly more funding for gifted and talented (GT) students than for economically disadvantaged students (Fifth Ward Education Task Force 2016). The report suggested changing the weighted pupil formula, which accounted for 90 percent of each school's budget and allotted a modest weight of 7.5 percent for low-income students but a much greater weight of 12 percent for GT students, who were disproportionately higher-income, white, and concentrated in specific schools. When this funding inequity was brought to the attention of the district's leadership, they acted upon it quickly, but they had to figure out a way to avoid provoking the influential parents of the higher-income, GT students. The acting superintendent's original proposal would have cut the amount of funding that schools received for GT students in half, but that was not politically feasible. The revised proposal therefore redirected funds for the poorest schools without touching the funding for GT students. The newspaper headline highlighted this choice: "HISD [Houston Independent School District] Chief Scraps Plan to Cut Gifted Student Funding" (Mellon 2016). After the headline and the first sentence, the rest of the article described the acting superintendent's plan to redirect $21 million to the poorest schools. The revised plan was later approved with a unanimous school board vote, and the subsequent headline read: "HISD Approves Spending Plan Favoring Schools with Most Low-Income Students" (Wermund 2016). Although redirecting $21 million is no small feat, it is not a sustainable solution given that the inequitable funding formula remained the same in order to appease the influential parents of GT students and avoid further white flight from the district, whose student body is only 8 percent white.

Another important interest that can supersede the interests of students is job security, which, for policymakers at all levels, is often tenuous: many policymakers must either be reelected or reappointed or have their contracts renewed. They are therefore under high pressure to perform quickly during their term in leadership, and they must please many powerful constituents, some of whom could expedite their termination. These conditions are important for accountability purposes, but they are not conducive to long-term planning or policies or interventions that might take years to produce desired results. Similarly, the pressure on many researchers, especially untenured faculty or researchers seeking career advancement, to produce academic reports requires that they pursue research questions that are interesting to the broader research community (and not necessarily to local decision-makers) and that their results be interesting or surprising (which can reduce incentives for replication or for publishing studies with insignificant results); for these researchers, the policy implications are often an afterthought. All of these interests make it difficult for education researchers and policymakers to work together effectively.

While education researchers and state and local policymakers struggle to connect in a meaningful way, vendors of textbooks, software, and curricula often do a much better job than academic researchers of disseminating research directly to decision-makers in school districts and state education agencies. Because that research, often produced and funded by these vendors of educational products themselves, is more likely to report favorable results (Borman et al. 2003), these local decision-makers need more access to independently produced, timely, context-specific research. Other sources of funding, such as federal agencies and private foundations, fund independently produced research, but their funding often does not support the cost of an effective partnership infrastructure. Many resources—

not just financial—are needed to bring together researchers and decision-makers to jointly develop a research agenda, build compatible research structures, and conduct and disseminate research findings in a direct and effective manner. Fortunately, the context for creating more meaningful connections between researchers and decision-makers is improving.

THE CHANGING CONTEXT

Despite numerous challenges to an effective connection between researchers and policymakers, several important changes have occurred since the release of the Coleman Report. Today's political context is quite different from that of fifty years ago and is primed for much better collaboration between education researchers and decision-makers, which I believe can more effectively reduce inequalities and inequities. These changes include: (1) increased emphasis on local decision-making, coupled with a nationwide movement among researchers, policymakers, and funders to create more meaningful and effective place-based partnerships; (2) changing institutional incentives for both academic researchers and leaders at state and local education agencies; and (3) technological advances in data science. These changes present a unique opportunity for improving the connection between research and policy and reducing educational inequities over the next fifty years.

The nationwide movement to create more meaningful relationships among researchers, policymakers, and funders has been in the making for several decades, but an emphasis on place-based partnerships did not begin until around 1990, with the founding of the Chicago Consortium on School Research (CCSR 2015). This model spread slowly at first, but quickly took off in the last decade as similar place-based partnerships between research institutions and local education agencies began to form in other large urban areas, such as the Baltimore Education Research Consortium (BERC), launched in 2006; the Research Alliance for New York City Schools, launched in 2008; the Stanford University and San Francisco Unified School District Partnership, launched in 2009; the Los Angeles Education Research Institute (LAERI), launched in 2011; the Houston Education Research Consortium (HERC), launched in 2011; the Education Research Alliance for New Orleans (ERANO), launched in 2013; and Shared Solutions in Philadelphia, launched in 2014. Although each of these partnerships has distinct features relevant to its local context, they share a primary aim to connect research and policy in a manner that promotes collective impact.

Along with the formation of these partnerships, a developing new field of research has added theoretical and methodological depth to partnership work, starting with Maureen Hallinan's (1996, 2011) plea for researchers to adopt a more practical approach in order to be more effective. Meredith Honig and Cynthia Coburn (2008) have helped researchers understand the different meanings of "evidence" and the complicated ways in which policymakers use it, and Anthony Bryk, Louis Gomez, and Alicia Grunow (2011) have promoted a problem-centered, sustained research infrastructure that cultivates a diversity of expertise so that research and development do not occur apart from an applied setting but rather through a "networked improvement community." In particular, Melissa Roderick, John Easton, and Penny Sebring (2012) argue that developing new roles for research is increasingly important as decision-making becomes more decentralized. All of these insights have helped to move the nascent field of research-practice partnerships forward, especially local place-based partnerships.

The spread of these partnerships and the accompanying development of the new research field reached a critical point with the passing of the Every Student Succeeds Act (ESSA) of 2015—the most recent reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965. ESSA is in many ways a response to the lessons learned from the previous reauthorization, the No Child Left Behind (NCLB) Act of 2001. Among the lessons learned from NCLB was the need for a much stronger commitment to supporting the use of evidence in local decision-making. The evidence-based movement was already well

under way in 2001, but recent developments would provide resources for research and evaluation as well as increase state and local power to act upon that evidence. Specifically, ESSA will:

- establish new resources to test promising practices and replicate proven strategies that will drive opportunity and better outcomes for America's students; and
- empower state and local decision-makers to develop their own strong systems for school improvement based upon evidence, rather than imposing cookie-cutter federal solutions, as No Child Left Behind (NCLB) did.

This commitment to the provision of resources for research, combined with increased state and local power to act upon that evidence, epitomizes the increasingly widespread emphasis on local decision-making, which is more conducive to collaboration between researchers and decision-makers.

National data provide useful benchmarks, but state and school district decision-makers want to use timely, context-specific evidence, based on questions they helped to develop. The national-level evidence provided by the Coleman Report may have been suitable for gauging the nation's inequalities and inequities, but it was not useful for local decision-making. The current evidence-based movement focuses on the power of evidence in local decision-making, which I believe is a more effective strategy for reducing inequality owing to the buy-in generated when local decision-makers and researchers collaborate on a long-term basis. In particular, local decision-making facilitates the development of a joint research agenda, which is an iterative process that requires extensive and frequent communication between local researchers and decision-makers. Most importantly, a jointly developed research agenda in turn increases the likelihood of aligning the timing of research with the timing of decision-making.

Another important change for researcher–decision-maker collaboration is taking place among the agencies and foundations that fund education research and education initiatives. Funders of education initiatives are more often stressing the need for external evaluations, and funders of education research are putting greater emphasis on the need for deeper collaborations with the education agencies involved. Funders are developing new requests for proposals that specifically require these types of collaborations to facilitate a thorough and strategic dissemination process that will directly inform decision-makers. Funders are also increasingly collaborating with one another to develop funding strategies that will enable them to accomplish more together than could be accomplished alone. For example, the Education Funder Strategy Group (EFSG), a group of about thirty foundations that meet quarterly, aims to create "systemic improvements in student learning and outcomes" by, among other goals, "building capacity and equity into the [public education] system to fully serve all students."[1] These foundations are leaders in a movement to support research that is not only rigorous but also impactful. This movement, which is spreading to other foundations, is critical for convincing researchers and decision-makers to work together in meaningful ways.

Unfortunately, the actors that have been slowest to join these important movements have been research universities. Although some research universities are developing criteria to recognize and reward applied research, there is still tremendous pressure on academic researchers to focus exclusively on academic publications, which can take years to produce and typically are not read by decision-makers. Most research universities place much less weight on other works that could convey information to decision-makers more directly, such as research briefs for school district leaders, newspaper articles for the general public, and presentations or research memos for state leaders. Furthermore, some academic publish-

1. See the mission statement of the National Public Education Support Fund as it relates to the EFSG at: http://www.npesf.org/education-funder-strategy-group (accessed June 28, 2016).

ers refuse to publish research that has already been publicized heavily. For these reasons, academic researchers have few incentives to invest a lot of effort in working with decision-makers through long-term alliances.

However, some universities are starting to recognize that reaching out to decision-makers can have many benefits, including more opportunities for securing funding (given the funders' strategies mentioned earlier) and an improved public image that attracts donors who value research with direct societal impact. Support from their university administration is crucial if academic researchers are to collaborate effectively with local decision-makers. For example, Rice University has been extremely supportive of my own efforts to collaborate with local decision-makers, including assistance in setting up formal partnerships, securing data-sharing agreements, and developing relationships with key leaders. If institutions like Rice take the lead in demonstrating to other institutions the value of this type of work, I believe that research universities can play an important role in changing the academic incentives for collaborating with decision-makers.

Advances in data science have been another crucial development in facilitating researcher–decision-maker collaboration. Although still an emerging field, these recent technological advances have much to offer education researchers that enables them to collaborate effectively with a variety of community partners as well as other researchers. Of particular use is the capacity to store extremely large amounts of data, from multiple databases that can communicate with each other, and in a manner that is secure yet easily accessible to approved users. Rice University recently invested $150 million in data science initiatives, and the Kinder Institute for Urban Research at Rice is building an urban data platform with spatial data architecture that will serve as a single access point for over 2,000 data sets maintained by the City of Houston, the Houston Independent School District, community organizations, and other partners.[2]

Not only are these data science developments enabling researchers and decision-makers to share data more easily and produce faster and timelier results, but they are also facilitating the development of new research methodologies and tools, such as machine learning, statistical learning, and better data visualization. With these developments in data science, state and school district leaders can store more information, including more granular data; they can more easily transfer sensitive data to researchers while minimizing security risks; and researchers can link more databases to open up new lines of research and apply new methodologies that require massive amounts of data. For example, many school districts had not been storing application data from job candidates who were not hired, owing to the cost associated with data storage. Without this information, researchers cannot study applicant pool changes over time or teacher selection, recruitment, and retention processes, which are associated with inequalities in student outcomes and are more challenging in some schools than in others (Jacob 2007). However, with improved and less expensive data storage technology, school districts can store unselected job candidates' information over a period of time. Furthermore, if school districts across a geographic region do this, researchers can study these processes across a regional job market, as neighboring districts often compete for job candidates.

These developments have created a context for researcher–decision-maker collaboration very different from the context of fifty years ago. The national movement to create more meaningful partnerships, the increased emphasis on local evidence-based decision-making, funders' initiatives to promote researcher–decision-maker collaboration, the changing institutional incentives for academic researchers, and the technological advances in data science have all created a context primed for a deeper

2. Jade Boyd, "Rice Announces $150 Million in Strategic Research Initiatives," Rice University News & Media, September 21, 2015, available at: http://news.rice.edu/2015/09/21/rice-announces-150-million-in-strategic-research-initiatives/ (accessed June 28, 2016).

and more effective connection between research and policy. I believe that the following approaches could seize this moment and reduce inequality over the next fifty years.

APPROACHES TO REDUCING EDUCATIONAL INEQUALITY

In response to the stalled progress in reducing educational inequalities and inequities, I propose three practical approaches that capitalize on the changes taking place that facilitate a more effective connection between research and policy. The three approaches focus on local, regional, and national measures to reduce educational inequities, and they all leverage a partnership research model. Local measures can help schools with high concentrations of disadvantaged students improve educational outcomes, regional measures can integrate schools and school districts in the long run, and national measures can support the development of local partnerships and facilitate work across partnerships.

Schools with high concentrations of disadvantaged students have become increasingly common and simply cannot continue to function in the same way. For example, students in these schools have lower access to teachers with higher value-added scores, which are associated with student achievement, especially in math and science (Lauen and Henry 2015). It is therefore important to understand how these schools function and how best to help students in very challenging contexts. At the same time, we must figure out how to disband the high concentrations of disadvantaged students in order for schooling processes to be more effective and, most importantly, to take up the work of reducing educational inequality.

Approach 1: Local Measures

Education researchers regularly interact with schools and school districts and even refer to these collaborations as "partnerships," but these collaborations typically are researcher-centered, are limited to the duration of a study or project, and yield academic publications that rarely benefit the schools involved (Turley and Stevens 2015). These collaborations are based on a *traditional academic research model,* which emphasizes researcher-developed questions, site selection based on those questions, and the dissemination of research findings primarily to other academics. As a result, academic researchers have limited involvement in informing policy and practice in school districts, and school district leaders have limited involvement in shaping research agendas at research institutions (Turley and Stevens 2015). In an effort to address this problem, research-practice partnerships (RPPs) apply a *partnership research model,* which focuses on developing a long-term alliance rather than a project-based collaboration, place-based research agendas that are developed jointly by researchers and decision-makers, and a dissemination process that prioritizes conveying information to decision-makers.[3]

There are many advantages to the partnership research model. Most importantly, this model is more likely to produce research that will actually be used by education decision-makers because that is its goal at the outset. To begin with, a jointly developed research agenda ensures that the research produced is relevant to the potential users of the research results because they play a direct role in developing the research questions. Developing an agenda jointly requires early and frequent communication, in the recognition that it is an iterative process that must include multiple perspectives and ongoing equal ownership of the agenda. Combining the expertise of decision-makers who can identify the most pressing questions with the expertise of researchers who can incorporate the broader literature produces research projects that are relevant and of great interest to decision-makers, most of whom will eagerly await the research results.

Another significant advantage to RPPs is that they produce local, context-specific research. Besides their lack of easy access to aca-

3. See William T. Grant Foundation, "Research-Practice Partnerships," available at: http://wtgrantfoundation.org/RPP.

demic journals, and the time to read them, an important reason why decision-makers do not use available research is that it is usually produced at a different location with which their district may not have much in common. Sometimes research sites are not identifiable in research publications, and even if they are identified and happen to have some similarities to local decision-makers' schools and districts, there is no guarantee that what worked at the research site will work elsewhere, given the ever-present problem of unmeasured factors. In addition, school district leaders must use the most recent data available because districts change rapidly, but by the time articles or books are published the data are several years old. For these reasons, local decision-makers are much more likely to make use of timely, local research because they can be assured that the evidence they are using is directly relevant to their context. This is particularly important for districts with high concentrations of disadvantaged students, in which schooling processes function very differently—an issue I return to shortly.

Another advantage of RPPs is that their dissemination process is much more effective. A common understanding of research dissemination among academic researchers is that it is unidirectional and occurs after the completion of a research project, but this is highly ineffective for local decision-makers. The dissemination process should be more like a two-way dialogue that begins before the study begins, continues throughout the course of the study, and culminates in a series of discussions about the study's findings, implications, and limitations (Tseng 2013). The joint development of research questions ensures that the research is relevant and of interest to the potential users, but the dissemination process continues throughout the study, as researchers and decision-makers meet regularly throughout the course of the study so that district leaders can respond to researchers' questions and researchers can inform them of what to expect before the findings are released—what is often referred to as the "no surprises" rule. For example, the Houston Education Research Consortium, the partnership between Rice University and the Houston Independent School District, holds weekly research team meetings that district leaders are invited to attend, either via videoconference or in person. After the completion of the study, researchers do not simply hand over a written report but meet with decision-makers to answer questions and discuss the study's main findings, limitations, and implications. This type of dissemination process requires a much larger time commitment by both researchers and decision-makers, but it yields better research and significantly increases the chances that the research will actually be used.

Finally, because RPPs are designed to be long-term, they have the advantage of facilitating important follow-up studies that help districts learn, for example, why an intervention did not work as planned. When an intervention does not work, determining whether the failure was due to an ineffective intervention or an effective intervention with ineffective implementation can be extremely challenging. Through long-term partnerships, researchers and district leaders can work together not only to study what works but also to learn how to make interventions work when they do not, whether by altering the interventions or altering the implementation of the intervention. For example, in its evaluation of a program for struggling readers using a regression discontinuity design, HERC found that it was not having the desired effect. The consortium recommended a change in the program's eligibility requirements in order to exclude the students near the test score cut-point, because there was evidence that the program was not helping these students. This change allowed the district to focus its resources on the students more likely to be helped by the program, and it allowed HERC to do a follow-up study to test the program's effectiveness for students in a different part of the test score distribution.[4]

By connecting research and policy in this manner, policymakers and researchers can work together to identify and implement effective tools for helping schools and districts with high concentrations of disadvantaged stu-

4. The HERC research briefs are available at: https://kinder.rice.edu/herc/.

dents. However, local efforts are not sufficient for addressing the larger need to improve economic and racial-ethnic integration, because segregation occurs primarily between rather than within school districts (Stroub and Richards 2013). As a result, efforts coordinated through regional and national measures are needed in order to disband high concentrations of disadvantaged students and help schools function more effectively. Improving economic and racial-ethnic integration is a necessary part of reducing inequality.

Approach 2: Regional Measures

Although local partnerships can produce work that informs integration policy, such as district magnet school programs that aim to integrate students, the level of integration they can achieve is limited by the fact that segregation occurs primarily between rather than within school districts. Kori Stroub and Meredith Richards (2013) estimate that almost two-thirds of multiracial segregation occurs between districts and only one-third occurs within districts. Furthermore, between-district segregation is highest in *fragmented* metropolitan areas, where a central city district is surrounded by a large number of smaller districts (Bischoff 2008). This means that significant changes in segregation can only take place at the regional level and that the greatest opportunity for change is in fragmented metropolitan areas.

There are clear patterns by race and socioeconomic status, for example, in my own region, the Houston Independent School District and neighboring Houston-area school districts. HISD, the largest district in Texas and the seventh-largest in the United States, is only 8.2 percent white, and 75.5 percent of students are economically disadvantaged, according to the 2014–2015 online district profile. In contrast, neighboring districts northwest of HISD are significantly whiter and less economically disadvantaged: 27.5 percent white and 49.7 percent economically disadvantaged in Cypress-Fairbanks; 40.9 percent white and 29.0 percent low-income in Katy; and 57.3 percent white and 24.5 percent economically disadvantaged in Tomball. Intradistrict efforts cannot integrate schools, especially if the district's student population is only 8 percent white, as is the case with HISD. Redistributing the few white students in HISD will not significantly alter the racial composition of the district's schools.

Local RPPs can play an important role in integration, but they must coordinate their efforts across partnerships, especially those in their region, in order to achieve macrolevel changes in segregation. School and district segregation matters a lot because a high concentration of disadvantaged students alters the functioning of campuses and districts (Rumberger and Palardy 2005). In schools and districts with high concentrations of disadvantaged students, teacher and administrator recruitment and retention is more difficult, course offerings are more limited, parent involvement is more challenging because of their limited time and resources, specialized programs that require parent organizing and fund-raising are nearly impossible, and remediating interventions are often ineffective owing to a lack of human capital, leadership stability, and other important resources. As long as these resources, through segregation, are concentrated in some schools and are deficient or completely lacking in other schools, efforts to improve educational outcomes among disadvantaged students are Band-Aid solutions at best. Band-Aids are helpful in the short term and should of course be utilized, but only in conjunction with longer-term regional solutions that aim to improve the integration of students.

There are some interdistrict collaboratives, such as in Rochester, Omaha, and Minneapolis (Finnigan et al. 2015). Some resulted from court orders or state laws, while others were voluntary, but regardless of their origins, these collaboratives have had very limited reach because they are choice-based and rely on the cooperation of suburban schools to provide student slots (Finnigan et al. 2015). Furthermore, these collaboratives are limited to districts and therefore lack the advantages of RPPs between districts and research institutions. In particular, regional RPP cooperation has the potential to inform region-specific decision-making to produce macrolevel changes such as improving economic and racial-ethnic integration. Intradistrict efforts cannot produce these changes,

nor can interdistrict efforts without locally informed decision-making, based on timely, context-specific research.

Regional measures based on coordinated local RPP efforts are needed. Local knowledge can be synthesized at the regional level to produce measures to reduce inequality beyond what can be accomplished through local measures alone. Regional, interdistrict efforts informed by local RPPs can address a variety of regional equity challenges and guide actions such as those aimed at improving economic and racial-ethnic integration. Regional measures can address other equity challenges as well, such as the inequitable distribution of highly qualified and effective teachers. There are large differences between the qualifications of teachers in the highest-poverty and highest-minority schools—who are often inexperienced, out-of-field, or uncertified—and the qualifications of teachers in low-poverty and low-minority schools (Peske and Haycock 2006). Even when using value-added estimates in addition to experience and licensure exam scores, the distribution of teachers consistently favors economically advantaged and nonminority students in elementary, middle, and high schools, and these inequities are found at the classroom, school, and district levels (Goldhaber, Theobald, and Tien 2015). Districts may attempt to recruit and retain highly qualified and effective teachers, but an equitable distribution can only be achieved at the regional level because teachers compare salaries, bonuses, and work conditions across districts in their region. For these reasons, these types of efforts to improve equality of educational opportunity are best carried out through the regional cooperation of local RPPs.

Approach 3: National Measures

National efforts are needed as well. The number of research-practice partnerships at this level is increasing, but there are relatively few such RPPs, many are fairly new, and they are challenging to develop and maintain, as they must be structured to endure frequent leadership changes, funding fluctuations, and political swings. A national infrastructure could support the development of these partnerships, facilitate their communication and collaboration, and coordinate efforts to connect research and policy at the local, regional, and national levels. Several national efforts to support RPPs are under way. For example, the Institute of Education Sciences (IES) in 2013 began funding partnerships between research institutions and state or local education agencies to carry out research on issues of high priority for the education agencies. Private foundations have also increased their funding for research produced by these types of partnerships. In addition, the National Network of Education Research-Practice Partnerships (NNERPP) was launched in 2016 to support the development of these partnerships. Housed at the Kinder Institute for Urban Research at Rice University, NNERPP aims to (1) develop and share best partnership practices, (2) synthesize findings and build knowledge, (3) facilitate and produce comparative research, and (4) advance broader policies and system reforms. These tasks, which I describe in greater detail in this section, are prohibitive for RPPs working in isolation, but efforts coordinated through a national network are much more likely to succeed in connecting research to policy and practice and reducing inequality. Broader coordinated efforts will ensure that educational inequality is not only studied but also reduced.

First, NNERPP aims to *develop and share best partnership practices*. One reason why RPPs can be challenging to set up and difficult to maintain is that they require that participants have many skills in which researchers and district leaders typically are not trained. Although researchers often collaborate with other research institutions, it is unusual for them to collaborate with school districts in a long-term partnership, and these collaborations highlight the substantial organizational differences between research institutions and school districts. Members of these different institutions often are not fully aware of their extensive dissimilarities in terms of time lines, communication processes, and organizational structures, to cite only a few examples. Furthermore, when these partnerships are forged, it can be very difficult to maintain a proper balance of power between the partner institutions and the individuals involved.

Since most RPPs are fairly new, effective partnership practices have only recently begun to be developed and documented. There is much need for more in-depth information about how to develop and sustain these often precarious partnerships, such as how to handle frequent leadership changes and political swings, how to translate research into meaningful action, how to make communication styles more compatible, and how to deal with partnership fatigue. The next step for RPPs is to develop best practices for overcoming the barriers—erected by both researchers and district leaders—to using research evidence. For example, HERC researchers have significantly altered their research time lines in order to release research briefs prior to district budget decisions, and district leaders have altered their schedules in order to include research meetings to discuss evidence relevant to their decision-making. Information about the practices that improve the use of evidence is just beginning to be collected and documented. There is need for systematically collecting best practices from the full range of RPPs that now exist, and most importantly, there is great need for developing effective mechanisms for sharing this knowledge and putting it into practice.

Second, NNERPP aims to *synthesize findings and build knowledge*. Although local RPPs have the distinct advantage of enabling researchers to report findings directly to decision-makers in a manner that maximizes their utility, district leaders and researchers alike could also benefit from knowing more about the research practices and findings of other partnerships. Research produced by RPPs should be synthesized in a manner that enables researchers and policymakers from all over the country to strategically build on that knowledge and use it to develop solutions. National meetings give education researchers many opportunities to learn from one another, but there are few opportunities for district leaders to learn from one another, and even fewer opportunities for district leaders and researchers to learn from each other. Professional organizations target these two groups separately, but there are few organizations that explicitly aim to bring these two groups together in the context of research-practice partnerships.

Third, NNERPP aims to *facilitate and produce comparative research*. Although context-specific research is of great interest to local policymakers, the utility of this research cannot fully realized until the most promising policies and practices are tested in multiple locations in order to establish external validity and understand the conditions under which the findings apply. Simply determining whether or not something works is insufficient; it is necessary to understand why it works, and it is impossible to do so without testing it in different settings. Multisite comparative research is a powerful tool for identifying the range of contexts in which promising policies and practices are effective, for understanding the mechanisms by which they work, and for replicating findings.

Finally, NNERPP aims to *advance broader policies and system reforms*. Research produced in direct partnership between research institutions and school districts should be used to inform national policies as well as system reforms. Information obtained from RPPs is uniquely equipped to inform national agencies and interest groups, especially if it has been vetted through carefully coordinated comparative research and examined extensively by school district leaders who have actually implemented the programs of interest; these conditions can generate a higher level of buy-in and political will. Moreover, because this type of information has the greatest potential to improve educational equality, it should be shared directly with regional and national policymakers, including the U.S. Department of Education, the Council of the Great City Schools, the National Public Education Support Fund, the U.S. Department of Health and Human Services, the Forum for Youth Investment, state departments of education, and the Council of Chief State School Officers. A national network of RPPs could be an extremely effective vehicle for ensuring that research and policy are connected in a manner that reduces educational inequality.

CONCLUSION

I began by asking why the Coleman Report and the decades of education research that it influenced have not resulted in greater reductions

in educational inequities. Especially in recent decades, educational inequities have not been reduced sufficiently and progress has stalled or even regressed by some measures. I attribute this failure in part to a significant disconnect between education research and policy. In this paper, I have described the conditions that produced this disconnect, as well as the political context that has impeded an effective connection between researchers and policymakers.

Despite these obstacles, I am optimistic about the next fifty years of education research. Several important changes since the release of the Coleman Report have created a more promising context for effectively connecting research and policy: (1) more emphasis on local decision-making, coupled with a nationwide movement among researchers, policymakers, and funders to create more meaningful and effective place-based partnerships; (2) changing institutional incentives for both academic researchers and leaders at state and local education agencies; and (3) technological advances in data science. In light of these recent changes, I have proposed three approaches to reducing educational inequality by focusing on efforts to connect research and policy at the local, regional, and national levels. Local research-practice partnerships can help schools with high concentrations of disadvantaged students improve educational outcomes, regional efforts can improve racial-ethnic and economic integration, and national measures can create an infrastructure that develops and facilitates work across partnerships and advances broader policies and system reforms.

The current political context is quite different from that of fifty years ago. Many obstacles to achieving educational equality remain, but today's context is much better suited for deeper and more effective collaboration between researchers and decision-makers. We must seize this moment and make every effort to connect research and policy at the local, regional, and national levels, for this is how we can ensure that the next fifty years of education research will have a greater impact than has been the case in the last fifty years and that it will play a more significant role in reducing educational inequities.

REFERENCES

Bischoff, Kendra. 2008. "School District Fragmentation and Racial Residential Segregation: How Do Boundaries Matter?" *Urban Affairs Review* 44(2): 182–217.

Borman, Geoffrey D., Gina M. Hewes, Laura T. Overman, and Shelly Brown. 2003. "Comprehensive School Reform and Achievement: A Meta-analysis." *Review of Educational Research* 73(2): 125–230. doi:10.3102/00346543073002125.

Bryk, Anthony, Louis Gomez, and Alicia Grunow. 2011. "Getting Ideas into Action: Building Networked Improvement Communities in Education." In *Frontiers in Sociology of Education,* edited by Maureen Hallinan. New York: Springer.

Chicago Consortium on School Research (CCSR). 2015. "UChicago Consortium on School Research." Available at: https://consortium.uchicago.edu/sites/default/files/uploads/UChicagoConsortium_Brochure_2015.pdf (accessed June 28, 2016).

Emmons, William R., and Bryan J. Noeth. 2015. "Why Didn't Higher Education Protect Hispanic and Black Wealth?" *In the Balance: Perspectives on Household Balance Sheets* (Federal Reserve Bank of St. Louis) (12, August). Available at: https://www.stlouisfed.org/~/media/Publications/In%20the%20Balance/Images/Issue_12/ITB_August_2015.pdf (accessed June 28, 2016).

Fifth Ward Education Task Force. 2016. "Empowering Educational Equity in Houston's Fifth Ward." Houston: A Fifth Ward Coalition of Churches. Available at: http://www.pleasanthillministries.org/files/uploads/documents/Task_Force_Report_-_For_Email_Purposes.pdf (accessed June 28, 2016).

Finnigan, Kara S., Jennifer Jellison Holme, Myron Orfield, Tom Luce, Sarah Diem, Allison Mattheis, and Nadine D. Hylton. 2015. "Regional Educational Policy Analysis: Rochester, Omaha, and Minneapolis' Inter-District Arrangements." *Educational Policy* 29(5): 780–814. doi:10.1177/0895904813518102.

Gamoran, Adam. 2001. "American Schooling and Educational Inequality: A forecast for the 21st Century." *Sociology of Education* 74 (extra issue): 135–53.

———. 2015. "The Future of Educational Inequality in the United States: What Went Wrong, and How Can We Fix It?" New York: William T. Grant

Foundation (July 11). Available at: http://wtgrantfoundation.org/library/uploads/2015/11/The-Future-of-Educational-Inequality-Adam-Gamoran.pdf (accessed June 28, 2016).

Goldhaber, Dan, Roddy Theobald, and Christopher Tien. 2015. "The Theoretical and Empirical Arguments for Diversifying the Teacher Workforce: Review of the Evidence." The Center for Education Data & Research, University of Washington Bothell. Available at: http://www.cedr.us/papers/working/CEDR%20WP%202015-9.pdf (accessed June 28, 2016).

Hallinan, Maureen. 1996. "Bridging the Gap Between Research and Practice." *Sociology of Education* 69 (extra issue): 131–34.

———. 2011. "Improving the Interaction Between Sociological Research and Educational Policy." In *Frontiers in Sociology of Education,* edited by Maureen Hallinan. New York: Springer.

Honig, Meredith, and Cynthia Coburn. 2008. "Evidence-Based Decision Making in School District Central Offices: Toward a Policy and Research Agenda." *Educational Policy* 22(4): 578–608.

Jacob, Brian A. 2007. "The Challenges of Staffing Urban Schools with Effective Teachers." *The Future of Children* 17(1): 129–53.

Lauen, Douglas Lee, and Gary T. Henry. 2015. "The Distribution of Teachers in North Carolina, 2009–2013." Research brief. Consortium for Educational Research and Evaluation–North Carolina (August). Available at: http://cerenc.org/wp-content/uploads/2015/08/0-FINAL-Final-TQ-Distribution-report-8-6-15.pdf (accessed June 28, 2016).

Mellon, Ericka. 2016. "HISD Chief Scraps Plan to Cut Gifted Student Funding." *Houston Chronicle,* April 21.

National Center for Education Statistics (NCES). 2013. "Table 221.85: Average NAEP Reading Scale Score, by Age and Selected Student Characteristics: Selected Years, 1971 Through 2012." *Digest of Education Statistics.* Available at: https://nces.ed.gov/programs/digest/d14/tables/dt14_221.85.asp?current=yes (accessed June 28, 2016).

Peske, Heather G., and Kati Haycock. 2006. "Teaching Inequality: How Poor and Minority Students Are Shortchanged on Teacher Quality." The Education Trust, Washington, D.C. Available at: http://edtrust.org/wp-content/uploads/2013/10/TQReportJune2006.pdf (accessed June 28, 2016).

Reardon, Sean. 2013. "The Widening Income Achievement Gap." *Educational Leadership* 70(8): 10–16.

Reardon, Sean, Demetra Kalogrides, and Kenneth Shores. 2016. "The Geography of Racial/Ethnic Test Score Gaps." Working Paper 16–10. Stanford, Calif.: Stanford University Center for Education Policy Analysis (April). Available at: https://cepa.stanford.edu/sites/default/files/wp16-10-v201604.pdf (accessed June 28, 2016).

Roderick, Melissa, John Easton, and Penny Sebring. 2012. *CCSR: A New Model for the Role of Research in Supporting Urban School Reform.* Chicago: Consortium on Chicago School Research (February). Available at: https://consortium.uchicago.edu/sites/default/files/publications/CCSR%20Model%20Report-final.pdf (accessed June 28, 2016).

Rumberger, Russell W., and Gregory J. Palardy. 2005. "Does Segregation Still Matter? The Impact of Student Composition on Academic Achievement in High School." *Teachers College Record* 107(9): 1999–2045.

Stroub, Kori, and Meredith P. Richards. 2013. "From Resegregation to Reintegration: Trends in the Racial/Ethnic Segregation of Metropolitan Public Schools, 1993–2009." *American Educational Research Journal* 50(3): 497–531.

Tseng, Vivian. 2013. "Forging Common Ground: Fostering the Conditions for Evidence Use." In *William T. Grant Foundation: 2012 Annual Report,* 18–25. Available at: http://wtgrantfoundation.org/library/uploads/2015/10/Forging-Common-Ground.pdf (accessed June 28, 2016).

Turley, Ruth N. L., and Carla Stevens. 2015. "Lessons from a School District–University Research Partnership: The Houston Education Research Consortium." *Educational Evaluation and Policy Analysis* 37(1S): 6S–15S.

Wermund, Benjamin. 2016. "HISD Approves Spending Plan Favoring Schools with Most Low-Income Students." *Houston Chronicle,* May 5.