Research-Based Options for Education Policymaking

2016 Collection

William J. Mathis and Kevin G. Welner
University of Colorado Boulder

Holly Yettick
Education Week

August 2016

National Education Policy Center

School of Education, University of Colorado Boulder
Boulder, CO 80309-0249
Telephone: (802) 383-0058

This is one of a series of briefs made possible in part by funding from
The Great Lakes Center for Education Research and Practice.

http://www.greatlakescenter.org
GreatLakesCenter@greatlakescenter.org
Briefs published by the National Education Policy Center (NEPC) are blind peer-reviewed by members of the Editorial Review Board. Find NEPC publications at http://nepc.colorado.edu. NEPC editorial board: http://nepc.colorado.edu/editorial-board.

Suggested Citation:


This material is provided free of cost to NEPC's readers, who may make non-commercial use of the material as long as NEPC and its author(s) are credited as the source. For inquiries about commercial use, please contact NEPC at nepc@colorado.edu.
While the concept of accountability for public schools has been an issue for as long as we have had universal education, policymakers have struggled to find a successful approach. Standardized student testing with published teacher and student test scores, as an accountability mechanism, can be traced to the 1870s. Falling somewhat out of favor during the progressive era, testing for school accountability took on a heightened intensity beginning in the 1970s. The No Child Left Behind Act of 2001 (NCLB) dramatically strengthened the test-based method of school evaluation, prescribing interventions and penalties for schools not meeting fixed test-score targets set by each state.

NCLB is the current version of the federal Elementary and Secondary Education Act (ESEA), and hope waxes and wanes for ESEA reauthorization, even though the law technically expired in 2007. One impact of NCLB has been a centralization of power in the federal government, yet political signs point to a partial return of school accountability mechanisms to state decision-makers. In fact, despite the prescriptiveness of federal law, considerable variation in school approval systems has already taken place, as a result of the federal waiver process. Nonetheless, much of this latitude is in the finer details—the core of test-based accountability remains universal.

*This material is provided free of cost to NEPC’s readers, who may make non-commercial use of the material as long as NEPC and its author(s) are credited as the source. For inquiries about commercial use, please contact NEPC at nepc@colorado.edu.*
With the federal testing mandates and the granting of waivers only when a plan meets the Education Department’s ideological criteria, little room has been left for school evaluation approaches that seek meaningful alternative approaches, even though these alternatives may seem far more appropriate in a nation with a strong tradition of local educational governance.

As discussed below, two alternatives are particularly worthy of consideration: (a) combining multiple measures that include inputs as well as outputs; and (b) inspectorate systems incorporating self-evaluations coupled with site visits conducted by disinterested but qualified visitors representing the state or an accreditation group.

**Test-Based Models**

Test-based school accountability systems consist of three simple components: “testing students, public reporting of school performance, and rewards or sanctions based on some measure of school performance or improvement” (p. 91). Following the period during the 1970s where tests focused on minimum basic skills, test-based models gained a federal endorsement in the Goals 2000 effort and took on greater prescriptiveness in the NCLB law, which defined the grades to be tested as well a set of interventions or penalties for schools failing to meet test-based proficiency cut-offs. Since NCLB did not seriously address resources or capacity-building, and since almost all children were to meet high standards by 2014, the effort was doomed to fail. The law’s prescribed interventions for inadequate progress (reconstitution, turnarounds, restart, and school closure) all shared the problem of little or no evidence of effectiveness at any scalable or practical level.

As it became increasingly clear that a student’s test scores in a given year were strongly predicted by that student’s scores from the previous year, policies shifted in many states toward reliance on so-called Growth Models. Most commonly, to Value-Added Models (VAM), which attempt to control for prior scores and other measured factors and then attribute the residual—the growth not accounted for by these other factors—to schools or teachers. While this method assumes a causal relationship, the American Statistical Association has cautioned against the high-stakes use of such measures. Several concerns have been raised by researchers: the assumptions underlying these models are problematic; the growth scores assigned to teachers are unstable and are not valid measures of teacher quality; and the test-driven narrowing of teaching and learning remains.

By 2015, test-based standards and accountability policies could show little or no evidence of effectiveness. In fact, they generated unintended and negative consequences such as teaching to the test, curriculum narrowing and drill-and-practice.

**Multiple Measures**

One of the key criticisms of the test-based model is that standardized testing does not measure all the important aspects of a successful school. Coupled with a growing backlash by parents and policy makers against what they considered to be excessive testing, the logical evolution was toward “multiple measures.” The reasoning is straightforward; a more comprehensive set of measures will more validly capture the broader set of cognitive
and affective learning goals of schooling. Unfortunately, “multiple measures” is an elastic term that includes an eclectic variety of elements. Depending upon the speaker and whatever pre-existing data are at hand in a given state, the term can mean many different things and thus result in many different policy approaches.

In looking at the federal “waivers,” 24 of 27 applying states proposed a wide variety of multiple measures. In 2009, individual states identified from four to 22 different measures, characterized by a strong collection of outcome measures and a virtual absence of opportunity, input, or process measures.

Advocates of multiple measures often speak of a “dashboard” of decision data. In order to have consistency across schools, the proposed dashboards are composed almost exclusively of empirical measures with data elements such as truancy, graduation rates, and disciplinary referrals. These have the advantage of being highly reliable because they have a standard meaning across schools. But their validity, as a measure of school quality, is open to question.

If a composite (or “report card”) score is constructed from these multiple measures, a particular problem is the assignment of weights to the various measures. For example, can 70% passing a math test be added to a 10% decrease in disciplinary referrals, and should this be adjusted for socio-economic factors and school history? While a number of statistical techniques (such as factor analysis) show promise for addressing these concerns, current decisions appear to be based on the judgment of individuals or working groups. There is no optimal answer to this dilemma.

Yet, “multiple measures” has served as a bridging concept between different policy camps. Linda Darling-Hammond and Paul Hill, for instance, released companion reports addressing elements to be included in the next generation of school evaluation systems. While agreeing on vague generalities such as the need for assessment of “college and career ready” standards, the use of evaluation consequences at the school level, outside intervention where needed, and the proper role of government; these agreements are at such a high level of abstraction that “multiple measures” remains more a rhetorical consensus than a verifiable accountability model.

---

**School Self-Evaluations Plus Inspectorates**

While eclipsed by test-based models in the United States, self-evaluation combined with inspectorate systems continue to be the norm in most OECD countries. The closest parallel in the United States are regional accreditation organizations that guide self-evaluations and organize visiting teams. The method is particularly used in higher education. Basically, the school conducts a structured self-evaluation and then, in systems combined with an inspectorate, a visiting review team validates the self-evaluation report. That is, the self-evaluation report becomes a foundational document for the inspection team. Through interviews and data review, the team seeks to verify such things as express student expectations, the comprehensiveness of assessment, curricular adequacy, professional development, and available supports and interventions for high needs children. Depending on the particular variation of this approach used, differences may shape the length of advance warning (if any) given to the school, the size of the visiting team, and the degree of disruption to school activities.
The advantages of a self-evaluation and inspection model are that the evaluation can include subjective components that are not easily measured by test scores or the aggregation of quantitative data. Thus, it can be broader and more inclusive, and it is less likely to distort teaching and learning. Also, a self-evaluation can be more revealing of needs than a staged show for visitors. However, subjective goals can be too loosely defined and subjectively presented. Cost is also a concern.  

As for evaluating the evaluation system, “Despite its long history and ubiquity, inspection has existed until comparatively recently in an a-theoretical limbo with practices and procedures assessed on little more than the commonsense of those who commend or criticize them” (p. 10). The evaluation problem is that cause and effect are hard to nail down. For example, did the new textbooks recommended by the team result in better teaching and learning? Would the school have purchased the materials anyway? One clear finding, however, is that interviews of participants show a positive perception toward self-evaluations and inspectorates, with 90% of Great Britain principals and teachers reporting being satisfied with the system.  

The Threshold Question: Adequate Inputs and the Opportunity Gap

[If schools are being held accountable for improving teaching and student learning, policymakers at all levels of the educational system, regional and state levels as well as the national level, should also be expected to support the capacity required to produce improved teaching and learning (p. 21).]

The greatest conceptual mistake of test-based accountability systems has been the pretense that poorly supported schools could systemically overcome the effects of poverty by rigorous instruction and testing. The system has inadequately supported teachers and students, has imposed astronomically high goals, and has then inflicted punishment on the most needy.

School evaluation systems will only succeed with all around accountability. This includes holding state and federal governments accountable for ensuring that children have the opportunities to learn necessary for success, inside schools and in their communities. Ultimately, a child denied opportunities will arrive at school with very high needs, and a school denied adequate resources will not effectively address those high needs. No evaluation system, by itself, is capable of overcoming such deficiencies.

Recommendations

1. Along with efforts to evaluate schools and impose consequential penalties, each state should assure that students have adequate opportunities, funding and resources to achieve that state’s goals.  

2. Continued development of multiple-measure and dashboard approaches should strive for comprehensiveness, balance between inputs and outcomes, clarity, and measurability. As contrasted with a convenient collection of available data, the information should accurately and validly reflect the desired learning outcomes and the input resources needed.
3. Standardized test scores should be used cautiously and only in combination with other data, to avoid creating incentives for narrowed and distorted teaching and learning.34

4. The aggregation of data into a single score or grade should be avoided. Such procedures hide valuable information while invalidly combining disparate and unrelated objects.35

5. States should develop, train and implement school visitation teams. In order to be economical, sites most in need of improvement should be prioritized. Standardized test scores can be validly used to establish initial priorities.36

6. External reviews should focus on providing guidance and support for school development and improvement, rather than on imposing sanctions.

7. External reviewers should be qualified experts who meet prescribed standards. Robust training should be compulsory, with retraining required on a periodic basis.

8. Multiple stakeholders (administrators, teachers, students, parents, community leaders, and researchers) should be involved in the design of the state’s evaluation/inspectorate program.
Notes and References


   With the rapid evolution of thought on accountability issues, this research summary is expanded from the original policy brief. Two major themes have been added: (1) if schools are to be held accountable for improving teaching and student learning, policymakers at all levels are first obligated to provide the necessary capacity to reach their goals; (2) the concept of “multiple measures” has gained broader acceptance in accountability models and is made a section of this brief.


http://nepc.colorado.edu/publication/research-based-options


17 See, for example:


21 The U. S Education Department’s “dashboard” can be found at http://dashboard.ed.gov/ There is a wide variety of commercial dashboard programs on the market.


This is a section of Research-Based Options for Education Policymaking, a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. Research-Based Options for Education Policymaking is published by The National Education Policy Center, housed at the University Of Colorado Boulder, and is made possible in part by funding from the Great Lakes Center for Education Research and Practice.

The mission of the National Education Policy Center is to produce and disseminate high-quality, peer-reviewed research to inform education policy discussions. We are guided by the belief that the democratic governance of public education is strengthened when policies are based on sound evidence. For more information on NEPC, please visit http://nepc.colorado.edu/
Reversing the Deprofessionalization of Teaching

William J. Mathis and Kevin G. Welner, University of Colorado Boulder
December 2015

Education policy over the past quarter century has been dominated by the twin reforms of school choice and testing. These two policies represent the broader reform emphases of: (a) deregulation and free-market ideology, and (b) outcomes-focused and standards-based testing to drive accountability and school improvement. In some ways, these two emphases are in tension, but they have combined to drive an era of deprofessionalization. This brief describes today’s deprofessionalization pressures and the resulting easy-entry, easy-exit approach to the hiring and firing of teachers. It also offers policy options to address some of the damage currently being done.

Background

A solid “62% of public school parents said they trust and have confidence in the nation’s teachers.” In addition, “55% of Americans and 63% of public school parents oppose including student scores on standardized tests as part of teacher evaluations.” But these sentiments are not reflected in current policies, which seek to remove professional responsibility from teachers and to evaluate them based in large part on students’ test scores.

This material is provided free of cost to NEPC’s readers, who may make non-commercial use of the material as long as NEPC and its author(s) are credited as the source. For inquiries about commercial use, please contact NEPC at nepc@colorado.edu.
Professor Richard Milner, the Helen Faison Endowed Chair of Urban Education at the University of Pittsburgh, looked closely at the issue of deprofessionalization in a policy brief he wrote for NEPC. He grouped teacher deprofessionalizing activities into three broad categories: (1) alternative (fast-track or no-track) teacher preparation and licensure; (2) the adoption of policies that evaluate teachers based on students’ test score gains, and specifically, those based on value-added assessment; and (3) scripted, narrowed curricula. The first two of these were mentioned above, and the third is a natural consequence of the first two.

Each of these three is considered below, in the context of a 10 percent drop in enrollment in teacher preparation programs from 2004 to 2012; California saw a 53% plummet from just 2008 to 2012. Correspondingly, teachers’ satisfaction with their jobs dropped from 62 to 39 percent between 2008 and 2012, its lowest level in 25 years. These trends raise ongoing concerns for students, teachers, schools and society.

### Fast-Track Teacher Training

When No Child Left Behind became law in 2002, it included a “highly qualified” teacher provision, mandating full state certification or licensure, as well as a provision requiring notification of a community when a school falls short of meeting this requirement. But Congress and the last two presidents have allowed “interim” teachers to be considered highly qualified, which opens the door for “Teach For America” core members and similar alternative approaches for entering the classroom.

Deregulation and free-market ideology have driven this shift toward alternative routes into the classroom. When a job is treated as a profession, employment is grounded in a deep body of knowledge and set of skills. There are no alternative routes to medicine, and such routes to law are almost non-existent. In many ways, the profession of teaching has never reached the level of medicine or law, but throughout the past five or six decades it did rise to a genuine profession. This is now changing. In 2011-12, about 15 percent of those who completed teacher education programs did so through an alternative route.

This shift is motivated in part by the contention that students’ test scores are not well predicted by the specific education program attended by a student’s teachers and in part by the contention that labor market incentives—loosened entry restrictions in combination with performance incentives—will increase teacher quality. These contentions devalue professional knowledge and rely heavily on trust in a deregulated market.

### Evaluating Teachers by Students’ Test Scores

Job evaluations of teachers include both formative and summative elements—those designed to improve and those designed to rate. Charging that these evaluations have been insufficient in scope and rigor, critics have changed their policy focus to student outcomes. The 1983 *A Nation at Risk* report precipitated a shift toward test score gains as the most important way to evaluate the quality of schools, culminating in the No Child Left Behind act. Following suit, the Obama administration used its Race to the Top policy and its NCLB “Flexibility” waiver policy to prod 42 states and the District of Columbia to adopt test-based teacher evaluations.

Growth-modeling approaches attempt to isolate each teacher’s effect on test scores, often
using regression analyses. Among the problems that have arisen are: (a) tests measure only a slice of what we hope students learn from teachers; (b) a student’s learning often depends on more than one teacher; (c) a student’s learning always depends on factors not included in the regression equations, such as peer effects and learning opportunities in the home and community; (d) factors included in the equations can be poor proxies for what they hope to measure (e.g., using “free- and reduced-price lunch status” as a proxy for family socio-economic status); and (e) practices such as teaching to the test, narrowing the curriculum, and even outright cheating result in distorted data.

The growth numbers yielded by these approaches are only weakly related to other effectiveness measures (such as classroom observations and teacher surveys). The American Statistical Association is highly critical of the use of value-added models (VAM) for educational assessment. The ASA found “Most VAM studies find that teachers account for only 1% to 14% of the variability in test scores.” It cautions, “Ranking teachers by their test scores can have unintended consequences that reduce quality.” The American Educational Research Association (AERA) followed suit in their statement, “Accordingly, the AERA recommends that VAM...not be used without sufficient evidence that (the) technical bar has been met in ways that support all claims, interpretive arguments, and uses (e.g., rankings, classification decisions).”

Since teachers are now being dismissed on the basis of these policies, at least 14 court cases have been filed across seven states.

**Scripted and Narrow Curriculum**

Prescribed curriculum is not new to American education. From the McGuffey Readers of more than a century ago, to the Basic Skills Movement of the 1970s, to approaches such as Direct Instruction in today’s classrooms, policymakers have sought to provide tight curricular guidance to teachers. Specified curricula can be scripted down to the minute. For beginning or struggling teachers, this can provide a handy road map. But it can handcuff and demoralize teachers who are expert professionals. Further, with the increasing cultural diversity in the nation’s schools, a single model, based on a single culture, may prove constricting and self-defeating of more pluralistic social goals.

The current test-based standards and accountability movement attempts to align curriculum and performance standards with classroom curriculum and assessment. The test results can result in sanctions for teachers and schools, as well as remediation for students. Given these high stakes, it is not surprising that schools have limited teacher discretion to wander from the script. A clear danger to teaching and learning is to reduce it to a rote set of repeated exercises.

As the Center on Education Policy found in their multi-state analysis, teachers and principals narrowed the curriculum and focused on those skills they expected to be tested. The result was the arts, social studies and other non-tested subjects were reduced. With the recession of 2008 and the subsequent cuts in school budgets, the mandated tested areas were less subject to cuts.

The result was curriculum narrowing was further accelerated. Since the penalties are most likely to be imposed on the schools with poorer populations, the broad effect is for poorer schools to have a less rich curriculum, more drill and practice and the end result is a school
program markedly lower in quality than that provided to their more affluent peers.\textsuperscript{24}

**Conclusions and Recommendations**

Fast-track preparation programs undermine teaching as a profession that requires special knowledge and experience. High-stakes teacher evaluations based on measures of student growth measures are prone to teacher misclassification and improper high stakes decisions. Narrowed curriculum can demoralize expert teachers and stultify learning by reducing teaching and learning to a mechanical process. It is a poor reflection on our society's sense of justice that these policies are concentrated in our poorest areas, where students already face an opportunity gap. We therefore make the following recommendations:

- Teacher education programs should be strengthened, with increased focus on developing the pedagogical content knowledge and expertise that should be demanded of professionals.

- State education agencies should not recognize or approve teacher education programs or accreditation agencies that fail to provide a full teacher preparation program. Furthermore, they should not license teachers who have not successfully completed such a program and an appropriate field experience.

- Teacher evaluations should also be strengthened, making use of established approaches that create the supports and incentives to improve teaching and learning, such as peer assistance and review.\textsuperscript{25}

- As test-based policies such as value-added teacher assessment are prone to misclassification and do not validly measure the range of skills necessary for effective teaching, a moratorium should be placed on their use.

- Scripted, narrow curricula can serve a valuable role for novice teachers and in locations where an articulated curriculum is not available. They do not, however, represent the full range of necessary learning opportunities for all students in all locations. Thus, a broadening, not narrowing, of the curriculum is needed. This can only be accomplished by a partial or complete decoupling of test scores from the high-stakes consequences that compel a narrowed curriculum.
Notes and References


See also AERA Council (2015, June). *AERA Statement on Use of Value-Added Models (VAM) for the Evaluation of Educators and Educator Preparation Programs*. Retrieved November 11, 2015, from
This is a section of **Research-Based Options for Education Policymaking**, a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. **Research-Based Options for Education Policymaking** is published by The National Education Policy Center, housed at the University Of Colorado Boulder, and is made possible in part by funding from the Great Lakes Center for Education Research and Practice.

The mission of the **National Education Policy Center** is to produce and disseminate high-quality, peer-reviewed research to inform education policy discussions. We are guided by the belief that the democratic governance of public education is strengthened when policies are based on sound evidence. For more information on NEPC, please visit [http://nepc.colorado.edu/](http://nepc.colorado.edu/).
Do Choice Policies Segregate Schools?

William J. Mathis and Kevin G. Welner, University of Colorado Boulder
March 2016

From the outset, school choice advocates have contended that choice policies would advance integration. Choice can give children the opportunity to attend a school outside of highly segregated neighborhoods, with the hope that market forces will drive integration. Buttressing the integration claims, these advocates assert that charter schools, the most common and most extensively studied form of school choice, enroll a greater proportion of students from low-income families and students of color than do traditional public schools.

Yet the weight of the research evidence does not support such claims, and a key flaw in the arguments concerns the level of aggregation. By aggregating charter school enrollments from highly segregated white schools and from highly segregated Black or Hispanic schools, an advocate can show overall charter enrollments that contain a nice mix of students. Aggregating enrollments across schools washes out school-level segregation.

While some choice school enrollments are genuinely integrated, the overall body of the research literature documents an unsettling degree of segregation—particularly in charter schools—by race and ethnicity, as well as by poverty, special needs and English-learner status.

- Race — “At the national level, seventy percent of black charter school students attend intensely segregated minority charter schools (which enroll 90-100% of students from...
under-represented minority backgrounds), or twice as many as the share of intensely segregated black students in traditional public schools. Some charter schools enrolled populations where 99% of the students were from under-represented minority backgrounds.”

In a detailed case study of Indianapolis charter schools, Stein found “higher degrees of racial isolation and less diversity.”

- **Poverty** – The effects of choice plans on segregation of children eligible to receive free or reduced-price lunch shows a similar pattern. Gary Miron and his colleagues found that economically challenged students attending charter schools operated by charter corporations (educational management organizations or EMOs) are stratified between schools. Seventy percent of EMO-managed charter schools studied were found to be very segregated by high income or low income. Examining Pennsylvania transfers, Kotok et al. confirmed the same segregative pattern.

- **Dual Language Learners (DLL)** – DLL students, also sometimes termed “English language learners,” were also under-represented in charter schools. One-third of the nation’s EMO-run charter schools had a population similar to the host district, but this distribution was highly skewed, with well over half the schools being segregated. These students were also generally under-enrolled; DLLs represented 11% of public school students while EMO-operated charter schools only enrolled 4.4%.

- **Students with Disabilities** – Charter schools claim they serve similar percentages of students with disabilities. Yet, the GAO reports that charter schools enroll a lesser proportion of such children than do traditional public schools (8% versus 11%). Miron’s examination of EMO-operated charters reports the same trend, but with a larger difference (7% vs 13%). Furthermore, charter schools tend to serve less severe and less costly disabilities. These patterns arise for various reasons. Some charter schools have an admirable mission to serve specific populations of disabled children and thus are segregative by definition. A study of Denver’s charter elementary schools suggests that such stratification trends may be at least partly due to the disproportionate movement of non-special-needs students into charter schools, rather than students with disabilities moving out. Other patterns and practices point to access issues at both pre-enrollment and post-enrollment stages. Market forces themselves can drive segregated environments.

Some research studies in this area compare the enrollment in the choice school to the enrollment of the district within which the school is located; other, more fine-grained analyses examine patterns of movement between choice schools and public schools by tracking individual students as they move from traditional public schools to charter schools. With some variation in detail, they report a general pattern of increased racial isolation and growth of the achievement gap.

Parents with greater formal education and who are more affluent are more adept at maneuvering within the choice system. Because wealth and education are so strongly correlated with race, ethnicity and English-learner status, all of these forms of stratification are facilitated and exacerbated by choice. These more advantaged families are able to tap into social networks, to provide transportation, and to provide the ancillary financial and parental supports sometimes required by choice schools.
The Resegregation of America’s Schools

Even without school choice, America’s schools would be shockingly segregated, in large part because of housing policies and school district boundaries. School choice policies that do not have sufficient protections against unconstrained, segregative choices do exacerbate the problem. In an eight-state study, Zimmer et. al. found that Black students tended to self-segregate. Garcia found a similar tendency to self-segregate by White, Black and Native American students. Income distribution also plays a role, as residential patterns in communities, districts, towns, and suburbs result in enclaves separated by race and by wealth. Proximity and convenience, formal and informal social mechanisms, and the scarcity of realistic and convenient alternatives also have an effect. Moreover, while many choice schools are scrupulously fair about their processes, not all behave in this fashion. Welner describes a dozen approaches that charter schools, for instance, sometimes use in order to shape their student enrollment. These practices may take place pre-enrollment, during enrollment or—in the case of push-out policies—after enrollment. The result of these forces is highly segregated schools, no matter the predominant racial or ethnic group.

Conclusions and Recommendations

To be sure, there are outstanding choice schools and substandard choice schools. Yet choice was marketed to policymakers as a breakthrough strategy for innovation and for high achievement. As a group, they have neither proven to be innovative hotbeds nor delivered on high achievement. After an extensive survey of the literature, Epple, Romano and Zimmer recently concluded, “Taken as a whole, the evidence suggests that, accounting for differences in population served, charter schools are not, on average, producing student achievement gains any better than TPSs [traditional public schools].” CREDO’s massive work in this area finds some statistically significant differences but not meaningful effect sizes. Most troubling is the side effect of contributing to and advancing the resegregation of schools and society. This raises the specter of separate and unequal educational opportunities and is not compatible with the goals of a democratic society.

Recommendations

1. The expansion or renewal of charter schools and other forms of school choice should be contingent on law and policies that result in equal opportunities for all.

2. Current choice laws and policies must be realigned to ensure diversity via choice policies that include constraints on stratification caused by unlimited choice. Instead, choice policies should be the result of deliberate policy choices grounded in our larger societal goals for our schools, including the valuing of diverse communities and integration of socioeconomic levels, race, and language.

3. For all choice plans, viable choices must be available, practical and convenient for a community’s least advantaged families.

4. Municipalities must assure socioeconomic and racial diversity in their housing plans and codes.
Notes and References


School choice includes inter- and intra-district choice, home-schooling, charter schools, virtual schools, tuition tax credits and vouchers. Charter schools are the most common form and where the weight of the research literature is focused.


Miron, G., Urschel, J.L., Mathis, W.J., & Tornquist, E. (2010). *Schools without diversity: Education*


Miron et al reports on the findings of 60 major studies and finds no differences.


This is a section of *Research-Based Options for Education Policymaking,* a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. *Research-Based Options for Education Policymaking* is published by
The National Education Policy Center and is made possible in part by funding from the Great Lakes Center for Education Research and Practice.

The National Education Policy Center (NEPC), housed at the University of Colorado Boulder School of Education, produces and disseminates high-quality, peer-reviewed research to inform education policy discussions. Visit us at: http://nepc.colorado.edu
Introduction

As policymakers and the courts abandoned desegregation efforts and wealth moved from cities to the suburbs, most of the nation’s major cities developed communities of concentrated poverty, and policymakers gave the school districts serving those cities the task of overcoming the opportunity gaps created by that poverty. Moreover, districts were asked to do this with greatly inadequate funding. The nation’s highest poverty school districts receive ten percent lower funding per student while districts serving children of color receive 15 percent less.

This approach, of relying on under-resourced urban districts to remedy larger societal inequities, has consistently failed. In response, equity-focused reformers have called for a comprehensive redirection of policy and a serious attempt to address concentrated poverty as a vital companion to school reform. But this would require a major and sustained investment.

Avoiding such a commitment, a different approach has therefore been offered: change the governance structure of urban school districts. Proposals such as “mayoral control,” “portfolio districts,” and “recovery” districts (also referred to as “takeover” or “achievement” districts) all fit within this line of attack. These districts are often run by a governor or mayoral-
appointed authority, with locally elected board members stripped of power. Such dramatic governance shifts are often couched as responding to fiscal or other immediate crises, thus requiring the tossing aside of state laws and union contracts.\(^4\)

The portfolio approach can overlap with either mayoral or recovery governance. A key, unifying element is the call for many neighborhood schools to be transformed into privately managed charter schools. The district’s central-office role would be correspondingly transformed into a manager of this decentralized collection of schools. Rhetorically, advocates of this reform describe a shift from a “school system” into a “system of schools.”\(^5\) Importantly, this approach does not confront nor attempt to remedy policies creating and sustaining concentrated poverty or those perpetuating a racist system of *de facto* segregation. Therefore, urban districts themselves are characterized as “failing.”

The operational theory behind portfolio districts is based on a stock market metaphor—the stock portfolio under the control of a portfolio manager.\(^25\) If a stock is low-performing, the manager sells it. As a practical matter, this means either closing the school or turning it over to a charter school or other management organization. When reopened, the building is generally reconstituted, in terms of teachers, curriculum and administration. In theory, this process of closing, re-bidding and reconstituting continues until the school and the entire portfolio is high-performing. These approaches have been described (positively) as “creative destruction” or (negatively) as “churn.”\(^6\)

The portfolio district idea is primarily the brainchild of the Center for Reinventing Public Education (CRPE), and it has caught fire. The CRPE website currently lists 39 districts as members of its portfolio-strategy network, including New York City, Los Angeles, Philadelphia, Chicago, Detroit, New Orleans, Memphis, Nashville, St. Louis, Cleveland, and Denver.\(^7\) Additional districts such as Newark and Washington DC have implemented similar approaches.

Generally speaking, four reform strategies are combined, in varying degrees, in portfolio districts: (1) performance-based (generally test-based) accountability, (2) school-level decentralization of management, (3) the reconstitution or closing of “failing” schools, and (4) the expansion of choice, primarily through charter schools.\(^8\) CRPE adds pupil-based funding, more flexible use of human capital, and capacity building.\(^9\) Also, for the portfolio metaphor to work, the central office must play an active management role, which means that highly deregulated districts like New Orleans are problematic implementations.

While proponents of portfolio districts emphasize local community involvement, governmental authorization lies in state capitals and local school boards are typically shunted aside, leading to the objection that the policies are a power play about “money and power and control.”\(^10\) State-level advocacy for these policies, moreover, has often been misleading, and characterized by spin and cherry-picked data.\(^11\) Yet given the struggles of students in urban school districts, no proposal should be easily dismissed—so the question remains about whether the portfolio idea might be structured in ways that advance societal goals.
How well do portfolio districts work?

Beneath the abundant and vigorous advocacy lies a very limited body of generally accepted research. Understanding the effects of “portfolio district reform” is hampered by messy reform contexts, where portfolios are only one of several major ongoing reforms, thus weakening causal inferences. Understanding these effects is also hampered by definitional problems—elastic labels with different components and different names being applied in different places. Further, the school cultural changes are often massive, interactions are complex, and politicization generates a great deal of noise. This renders the isolation of specific facets enormously difficult. Yet amidst the claims and counterclaims, several findings are clear:

1. Charter schools do not appear to have much impact on test scores, but they do have some negative unintended consequences.

2. Similarly, school closures may have some positive or negative impact, but they certainly result in instability.

3. School turnaround approaches have, in general, been very disappointing, in large part because of the problems with closures and charter schools. The churn in the system, loss of institutional knowledge and loss of culture results in community and school disturbance and instability. Closing even low-performing schools can prove disruptive as community support dissipates, particularly if higher performing schools are not readily available.

4. Research on mayoral control shows mixed evidence concerning effects on test scores.

We would not be surprised to see some “portfolio districts” see some benefits, while others will see primarily detriments. Governance changes—particularly those aimed at decentralization and deregulation—tend to involve complex trade-offs. Opponents will be able to point to failures; advocates will be able to point to successes. In the end, though, student outcomes in under-resourced urban districts will continue to be driven by larger societal inequities.

Effects on Communities and Democracy

Recognizing that centrally run big-city school districts are often not very responsive to community voices, it is important not to idealize that system. But it is a system rooted in democratic election processes, with school board members held accountable through the ballot box and open to meetings and petitions from parents and community members. The Washington Post quoted Youngstown, Ohio’s Reverend Kenneth Simon explaining one problem with a state-run school district as follows:

They’re taking away the right of our own school board that we elected to govern. The school board has no power. The community has no say. I don’t know how African-Americans could sit and let them roll the clock back like this.

Similarly, as described in a recent report from the Center on Popular Democracy:

Children have seen negligible improvement—or even dramatic setbacks—in their
educational performance. State takeover districts have created a breeding ground for fraud and mismanagement at the public's expense. The staff faces high turnover and instability, creating a disrupted learning environment for children. Students of color and those with special needs face harsh disciplinary measures and discriminatory practices that further entrench a two-tiered educational system.\textsuperscript{20}

The report adds, “It cannot go unnoticed that an overwhelming percentage of the districts that have experienced takeovers serve poor African American and Latino students and voters.”\textsuperscript{21} This is happening at a time when new voting rights challenges are ongoing, with poor African-American and Latino communities objecting to exclusion from, and new barriers to, democratic decision-making.\textsuperscript{22}

In short, each approach has its own limitations and drawbacks. Looking specifically at portfolio approaches, the private management of a community’s schools eliminates democratic accountability, substituting a system where schools are held accountable (by a central-office manager) for meeting performance standards or are held accountable through market forces. The ideal versions of each of these—democracy, the market, and portfolio managers—might, according to each set of advocates, theoretically result in responsive, high-quality schools. But those ideals are far from the reality.

Most importantly, however, all the evidence suggests that no governance approach will come close to mitigating the harms caused by policies generating concentrated poverty in our urban communities. In light of this core truth, does it make sense to privatize the management of urban schools?

**Recommendations**

The evidence on portfolio approaches should be understood in context. Educational outcomes in our urban areas were troubled long before the portfolio models were adopted. The main lesson of the portfolio model experiment is that policymakers should not be distracted by quick fixes promising cheap shortcuts. Portfolio models were proposed as a way to overcome problems of poverty and structural inequality and under-resourced schools—all through changes to the school management structure. Yet, as the Center on Popular Democracy report cautions, “State officials opted for structural change alone. And structural change by itself doesn’t work.”\textsuperscript{23}

Nevertheless, are there research-based lessons for policymakers from portfolio experiences to date? At the most basic level, the portfolio model is agnostic about who runs schools and about the curriculum and pedagogy in the schools. The key element is a restructuring of authority, with the central-office role becoming a manager of a network of independently run schools. That is the starting point, but the next step is to look to research about what the model must also include.\textsuperscript{24}

- **Funding** – Adequate funding must be provided to our neediest schools, with sufficient supplemental compensatory capacity.
- **Stability** – The hiring and retention of highly qualified principals, teachers and staff is a necessary element of long-term improvement. Children living in our most unstable environments need stable school environments.
- **Relevant, responsive curriculum and pedagogy** – People learn when material and
ideas are meaningful and build on their existing knowledge and experiences.

• Highly qualified teachers – Our neediest children should not be taught by a revolving series of our most junior and poorly prepared teachers.

• Personalized instruction – Without small class size and relationships with caring adults, personalized instruction is not realistically possible.

• On-site wrap-around services – With perhaps two-thirds of test score variance attributable to outside-of-school forces, and with no sign that concentrated poverty will be seriously addressed within our larger society, broader services need to be brought into schools.

• If expanded choice policies are under consideration, they must first be evaluated within a larger set of societal goals for schools, with “portfolio managers” accountable for crafting and effectively managing the system of schools to accomplish those goals. These goals include true integration and equitable access to each school and each course within a school.

• If a portfolio system is adopted, great care must be taken to assure the highest standards of programmatic quality, fiscal accountability, and checks and balances.

• If funded through public funds, the organizations must be transparent and subject to strict auditing procedures.

These features can and should be applied to traditional schools as well as portfolio schools. It is the quality of the educational program we provide and how we meet the needs of children that have a far more important and lasting effect than the type of governance structure.
Notes and References

1. The watershed legal case was the 1974 Supreme Court decision in \textit{Milliken v. Bradley}, 418 U.S. 717, where the Court rejected an urban-suburban desegregation plan for Detroit. For a discussion of how this fits within the larger trends of turning to schools to overcome larger inequities, see Kantor, H., & Lowe, R. (2013). “Educationalizing the welfare state and privatizing education: The evolution of social policy since the New Deal.” In P.L. Carter & K. Welner (Eds.), \textit{Closing the opportunity gap: What America must do to give every child an even chance} (pp. 25-39). New York, NY: Oxford University Press.


For an examination of this advocacy, see:


Positive effects were suggested by Kemple, J. (November 2015). High School Closures in New York City: Impacts on Students’ Academic Outcomes, Attendance and Mobility. The Research Alliance for New York City Schools. Retrieved February 3, 2016 from http://steinhardt.nyu.edu/scmsAdmin/media/users/sg158/PDFs/hs_closures/HighSchoolClosuresinNewYorkCity_ReseachAllianceforNYCSchools_pdf.pdf (In studying 29 closed schools along with other interventions in New York City, the displaced students performed no better than before; incoming students did better than their predecessors, but performance was still quite low; the research overall suggested that closure of poor-performing schools was positive but a broader array of reforms is needed.)


See generally:


This is a section of Research-Based Options for Education Policymaking, a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. Research-Based Options for Education Policymaking is published by The National Education Policy Center and is made possible in part by funding from the Great Lakes
Center for Education Research and Practice.

The National Education Policy Center (NEPC), housed at the University of Colorado Boulder School of Education, produces and disseminates high-quality, peer-reviewed research to inform education policy discussions. Visit us at: http://nepc.colorado.edu
Qualitative research refers to a broad collection of research methods which are primarily based on observations and interviews. While a quantitative study uses numerical outcomes to draw conclusions that could be generalized to a larger population, a qualitative study seeks to add a deeper understanding of the program, policy or intervention being studied. It might, for example, include interviews with teachers, parents, students, community members and others, as well as observations of the meetings where results and approaches are discussed. It might explore how an intervention changes what is taught or how it is taught. It would explore intended consequences but also might tease out unintended consequences.

Both qualitative and quantitative approaches have strengths and weaknesses; more importantly, the two approaches answer different yet important questions. Typically, qualitative techniques are more process-based, interpretive, and designed to understand a particular case. Through observations and interviews, focus groups, surveys, developmental studies, documentary analysis and a host of other approaches, qualitative research can fill in gaps in our understanding that quantitative methods cannot capture.

Policymakers are often presented with research reports espousing certain policy directions. Regardless of the research method used, readers should insist on high-quality work. Just as readers would look for signs of quality and usefulness with a quantitative study, they must...
demand the same of any qualitative study. Key elements to look for:

- Was the study conducted with rigor? That is, rigor in qualitative inquiry is defined by truth value (credibility), applicability (transferability), consistency (dependability), and neutrality (confirmability).

- Are the study’s data sources appropriate for its conclusions? For example, for an interview-based study, were appropriate interviewees selected who could adequately inform the analysis? Were the subjects selected in a sensible way—whether randomly or purposefully; e.g., stratified by roles? Did the researchers follow sensible interview protocols or use another sound way of gathering information and insights? Did the researchers allow the data to emerge or did they appear to bias the data collection and analysis toward a predetermined conclusion?

- Was the study placed within the larger body of research? That is, the study should include a complete literature review, rather than implying that the new study somehow supersedes past research. The reader should look for balance and whether the examination of reasonable alternative explanations is objectively presented.

- Did the study display signs of quality such as independent peer-review, source integrity, and absence of obvious bias? Is the researcher housed at a reputable academic institution or at an organization with a mission to advocate for a given policy?

- Are the methods clearly explained? Do they have enough subjects to justify their conclusions? Does there appear to be a bias in the data collection format? Does the information provided give enough guidance for a new research team to repeat and confirm the study’s findings and conclusions? Are the conclusions logically and tightly linked to the data and consistent with the literature review?
Notes and References


This is a section of *Research-Based Options for Education Policymaking*, a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. *Research-Based Options for Education Policymaking* is published by The National Education Policy Center and is made possible in part by funding from the Great Lakes Center for Education Research and Practice.

The National Education Policy Center (NEPC), housed at the University of Colorado Boulder School of Education, produces and disseminates high-quality, peer-reviewed research to inform education policy discussions. Visit us at: http://nepc.colorado.edu
Educational opportunities, and therefore life chances, have long been tied to family wealth and to housing, with more advantaged communities providing richer opportunities. Recognizing the key role of housing in this system, equity-minded reformers have proposed four types of interventions: (a) school improvement policies; (b) school choice policies; (c) school desegregation policies; (d) wealth-focused policies; and (e) housing-focused policies. Each of these is discussed below, with an emphasis on the final option.

**School Improvement Approaches**

The potential of high-quality schools to break the cycle of intergenerational poverty is real but is also dangerously over-hyped. Two points deserve emphasis. First, we as a nation have never come close to making the sustained, major investments that would be needed for a serious policy intervention of this type. In an inefficient and cruel system that accepts concentrated poverty as a dominant feature of the nation’s landscape, schools in those communities are being asked to provide opportunities to learn that are so enriching and well-supported that they fully overcome the food insecurity, housing insecurity, employment insecurity and other obstacles placed in front of the school’s students. Second, these systemic obstacles will

This material is provided free of cost to NEPC’s readers, who may make non-commercial use of the material as long as NEPC and its author(s) are credited as the source. For inquiries about commercial use, please contact NEPC at nepc@colorado.edu.
always be cleared by a small number of exceptional, fortunate children. But celebrating a Horatio Alger story of a child who beat the odds should never blind us to the reality of the odds themselves. Housing that is starkly segregated by race and income is a primary source of those troubling odds.

School improvement efforts can help mitigate the harms of segregated housing and can lead to more children finding success. Best schooling practices and finance reforms that direct greater resources are well within our reach; these approaches can and should be pursued. But they are unlikely to fully address those harms.

**School Choice Approaches**

For decades, school choice has been proposed as a way to break the link between segregated housing and segregated schools. When school assignment is based on neighborhood catchment area, wealthier families have more options in choosing schools since they have more options in housing. School choice can, in theory, open up the same options for all families and thereby result in more diverse schools. But the same forces that drive housing segregation—such as inequality in parental income, wealth, and education, as well as language barriers and racial animus, misunderstanding, and fear—also drive segregation through school choice mechanisms. Accordingly, far from mitigating the educational segregation caused by housing patterns, school choice can and often does add a layer of segregation on top of housing segregation. This common pattern, however, does not necessarily mean that school choice cannot be used as a tool for desegregation. Unless choice is carefully used as a tool within a system expressly designed to advance diverse schools, evidence suggests that it will not be successful in accomplishing that goal.

**School Desegregation Approaches**

Among the policy options that desegregate schools are (a) controlled-choice approaches, whereby school choices are offered but constrained by their potential to increase segregation; and (b) the location of schools and drawing of enrollment boundaries in order to increase the likelihood of more diverse schools. These approaches can make a difference, but they are not widely used.

**Wealth-Focused Approaches**

Policies such as the Earned Income Tax Credit and the minimum wage, as well as supports offered through robust safety-net programs, are designed to address some root causes of housing inequality and segregation. Wealth inequality is even greater than income inequality and explains even more of our measured achievement gaps. But U.S. safety-net programs are not robust, the meager minimum wage does not lift families out of poverty, and there are few signs that wealth-focused approaches are being taken seriously enough to drive changes in housing segregation.
Housing-Focused Approaches

The segregated housing patterns existing throughout the US did not arise in a vacuum. Policy choices, often grounded in discrimination, resulted in the splitting of towns by interstate highways, inequitable zoning, dense public housing located away from more affluent areas, rationed Section 8 (rent subsidy) vouchers that provide very limited access, the red-lining of properties and the unavailability in black neighborhoods of FHA-insured mortgages—all of which have created an absence of affordable and accessible housing. Inequitable policies are perhaps best highlighted by the reality that government has provided more housing assistance to the relatively wealthy, through deductible mortgage interest, than to the poor, through public housing and housing vouchers. One result has been the transformation of our inner cities and many rural areas into highly concentrated, under-funded and self-reinforcing enclaves of poverty. As poverty becomes more concentrated, schools lose financial, social, and cultural capital.

An alternative approach that shows some promise is inclusionary zoning—policies that use incentives to encourage developers to build affordable housing in otherwise high-cost neighborhoods. A well-designed study of such a policy in Montgomery County, Maryland found that achievement gaps were substantially reduced for students in families that benefited from this housing option and attended an elementary school with low poverty rates. Importantly, the benefits appear to arise from the housing stability and the access to low-poverty neighborhoods, in addition to attending low-poverty schools.

Documenting the benefits of integrated neighborhoods and schools has been elusive, because the integration itself has been fleeting. As Amy Stuart Wells has recently described, however, we now have a golden opportunity to succeed where we have failed in the past. Many areas are experiencing a “great inversion,” where gentrified and more affluent buyers move into economically depressed urban areas while boundaries around the city center are becoming more porous, with families moving into the suburbs. In both locations, the result is greater integration—at least temporarily. Wells explains that stabilizing these communities depends in part on changing how schools get reputations for being “good” or “bad”—and she argues that younger generations are more open to embracing diverse schools as good schools. Even where parents overtly support school integration, they make their own placement decisions based on word of mouth and informal contacts with their peers. In turn, this becomes associated with race. Thus, “school quality is constructed by social groups” and intellectual commitment is overcome by parental peer influences. School desegregation efforts have a natural limit of effectiveness, as do housing integration programs. Deliberate and sustained efforts are needed in both realms.

Recommendations:

• Multiple approaches can and should be implemented as a united set of mutually supportive initiatives. Addressing housing and income should not preclude school improvement, and policies that use carefully crafted and focused school choice as a tool for integration can also be potentially helpful.

• Closing housing-associated opportunity gaps will require a broad coalition of governmental agencies, zoning administrators, realtors and others.

• School desegregation policies should be more widely employed.
• Zoning and planning ordinances should require residential developers to provide a balanced, mixed and equitable compliment of affordable housing in all plans.

• Governmental supports and resources should be provided to schools serving integrated, diverse populations, making them and their diversity particularly attractive and appealing for parents.

• Reform should take advantage and build upon shifting and positive attitudes, particularly among younger generations.

• School-improvement approaches should be careful to avoid negative labeling of schools that encourages segregation. School-quality labels based on test scores provide little useful information; they can and should be replaced with information about actual learning opportunities and the healthiness of the school environment. States and local governments can take advantage of the new requirements in federal law (ESSA) to advance these shifts in thinking.
Notes and References


http://nepc.colorado.edu/publication/research-based-options
The Purpose of Education: Truing the Balance Wheel

William J. Mathis, University of Colorado Boulder
June 2016

Education then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance wheel of the social machinery.

Horace Mann, 1848

When our nation was young and figuring out how to make this little-known thing called democracy work, some power brokers of the day said the people were too ignorant to govern themselves. Thomas Jefferson disagreed. In 1820, he wrote,

I know no safe depository of the ultimate powers of the society but the people themselves: and if we think them not enlightened enough to exercise their controul (sic) with a wholesome (sic) discretion, the remedy is not to take it from them, but to inform their discretion by education.²

Fewer than 30 years later, Horace Mann, the father of the common school movement, proclaimed universal education to be the bedrock of democracy. Education is the “great equal-
izer of the conditions of men,” he said, and it deserves significant public investment at the local, state, and national levels. Mann passionately contended that education should be “universal, non-sectarian, free, and that its aims should be social efficiency, civic virtue, and character, rather than mere learning or the advancement of sectarian ends.” Jefferson and Mann had many shortcomings, but their belief in the power of universal education as a core requirement for democracy has been a fundamental and guiding principle for policymakers and the broader populace across the nation’s history.

“Thus, the purpose of education was to build, sustain and strengthen the society,” wrote Jennifer King Rice, the author of the NEPC policy brief that serves as the foundation of this paper. Unfortunately, with the ascendance of test scores and international economic competitiveness as education’s most loudly proclaimed purposes, the nation has forgotten that universal public education was established primarily for the benefits it provides to the common good. All citizens must be educated freely and equally because education is the bedrock of democracy. It is different from a private good or a market commodity.

We have made great progress in establishing a universal education system, as evidenced by graduation rates being at an all-time high. Yet, substantial disparities in educational resources, opportunities, and outcomes continue to undermine our vision—and ultimately our society.

Unfortunately, pervasive inequalities in the nation are growing. “Trends in labor market outcomes demonstrate that disparities in American family incomes have been increasing over the past five decades. The income gap between families in the top and bottom 20 percent of the income distribution has increased in 2011 dollars from $59,324 in 1947 to $177,844 in 2010—an increase of nearly 300 percent.”

Given the broad scope of inequities in schools and in society writ large, the most sensible approach would be to inventory the full range of social and economic needs, and address the multiple factors—that extend well beyond the traditional boundaries of schools—that contribute to the enduring and increasing opportunity gap that children experience in schools. Fair housing policies, investments in distressed neighborhoods, good jobs, and policies that reduce income disparities are all essential. Serious efforts to promote equal opportunity must be as broad and pervasive as the range of social and economic factors contributing to the current divide.

Misreading the achievement gap as an indicator of school failure rather than as a measure of unequal opportunities, some economists suggest that simply improving math scores will eradicate economic malaise. This mindset provided the rationale for the prevalent reform philosophy of the late twentieth and early twenty-first centuries: test scores will make the nation strong, and those scores can be improved by pedagogy and driven by punishments, regardless of the vast differences in student circumstances. This approach failed.

Broader reforms in schools and society are required.

Equalizing School Opportunities

While Mann considered education to be the “great equalizer,” recent court cases and adequacy studies show schools have been denied equitable and adequate fundamental resources. Given the unequal circumstances, our neediest schools must receive the greatest support.
Particular attention must be paid to the following:13

- Effective teachers and principals: Teachers are the most important “within the school” factor. Sound leadership is essential, most especially in high-poverty and low-performing schools.

- Appropriate class size: The research evidence is clear that smaller classes yield the greatest gains for poor and minority students.

- Challenging and culturally relevant curriculum and supportive instructional resources: Tracking and inconsistent access to advanced courses generates unequal educational opportunities.

- Sufficient quality time for learning and development: Although school days are somewhat uniform, instructional time is considerably less for lower socioeconomic children.

- Up-to-date facilities and a safe environment: Facilities affect learning, and the neediest children currently endure the most inadequate facilities.

### Expanding the Scope

Out-of-school variables are better predictors of test scores than school factors. Because the neediest children are systemically deprived of the rich learning opportunities and other learning advantages that more privileged students routinely enjoy, expanded opportunities and services for poor children must be provided.

- Extended time for learning and development: The summer academic loss of less affluent children is a clear indicator of the difference in the quality of informal learning experiences. “Students from more affluent backgrounds are exposed to learning resources including books, computers, museum visits, and other social, cultural, and academic experiences.”14

- High quality early childhood education and services: Perhaps the highest return on investment in education comes from universal, publicly funded, high-quality preschool.

- Community schools and wrap-around services: “School-based programs that offer medical and dental care, psychological support, recreational activities, and social services for all children have long been shown to significantly impact students’ ability to benefit from educational offerings.”15

### Truing the Balance Wheel

Coupled with the resegregation of schools and the disequalizing effects of privatization, fair and equal educational opportunities have been denied to half the nation’s children, threatening their futures—and our own. Undermining meaningful universal education, the very bedrock of democracy, inevitably and increasingly weakens the fabric of democratic society.

Therefore, it is recommended that:

http://nepc.colorado.edu/publication/research-based-options
• Policymakers and the general public embrace the broad goals of education, including civic responsibility, democratic values, economic self-sufficiency, cultural competency and awareness, and social and economic opportunity.

• Policymakers ensure that all schools have the fundamental educational resources they need to promote student success: effective teachers and principals, appropriate class sizes, challenging and culturally relevant curriculum and supportive instructional resources, sufficient quality time for learning and development, up-to-date facilities and a safe environment.

• Policymakers expand the scope of schools in high-poverty neighborhoods to provide wrap-around services including nutritional supports, health clinics, parental education, extended learning time, recreational programs, and other services needed to meet the social, physical, cognitive, and economic needs of both students and families.

• Policymakers promote a policy context that is supportive of equal opportunity: focus testing on formative rather than high-stakes purposes, prevent or repeal policies that allow for school resegregation, and renew the public commitment to public education.

As John Dewey stated in 1912, “What the best and wisest parent wants for his own child, that must the community want for all its children. Any other ideal for our schools is narrow and unlovely; acted upon it destroys our democracy.”\textsuperscript{16}
Notes and References


This is a section of Research-Based Options for Education Policymaking, a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. Research-Based Options for Education Policymaking is published by The National Education Policy Center and is made possible in part by funding from the Great Lakes Center for Education Research and Practice.

The National Education Policy Center (NEPC), housed at the University of Colorado Boulder School of Education, produces and disseminates high-quality, peer-reviewed research to inform education policy discussions. Visit us at: http://nepc.colorado.edu
For families and for government, our budgets are crucial. We allocate limited resources to those things we need and value most. When we want a better home, car, roads, or military, we direct money to those causes. Despite polls showing public support for schools, there is a longstanding advocacy movement that argues that, for schools at least, money doesn’t matter – so we need not worry about adequately funding them. Moreover, since K-12 education is the largest item in state budgets, this disinvestment can be politically popular as it significantly lowers taxes.

Underinvestment in schools has characterized Western countries since the beginning of public education and is the result of political decision-making, not a lack of resources or citizen support. The political debate has spawned court cases in 44 states. Called as expert witnesses, some education researchers testify that schools are underfunded; while other ex-

This material is provided free of cost to NEPC’s readers, who may make non-commercial use of the material as long as NEPC and its author(s) are credited as the source. For inquiries about commercial use, please contact NEPC at nepc@colorado.edu.
expert witnesses claim that it is not a question of enough money but simply a matter of using current funds wisely and exercising greater accountability. The Cato Institute, for example, has long argued that spending does not improve outcomes. Just this year, we have seen Michigan’s Mackinac Center argue that schools are well funded, while Detroit’s teachers have been told that there is insufficient money to pay their already-earned salaries (resulting in a walkout). Meanwhile, the Texas Supreme Court declined to address funding disparities while opining that the system is nonetheless inadequate.

The Claims and the Controversy

Highlighted in the watershed 1966 Coleman Report, school-level factors were found to be overwhelmed by outside-of-school factors. This led to a decades long debate over whether schools mattered that much. Along a different dimension, Eric Hanushek of the Hoover Institution claimed there is no systemic relation between spending and school quality and has testified to this effect in many school finance cases. His basic claim is that the nation (and the given state at issue) is a high spender with little to show for it; in fact, a majority opinion from Justice Alito of the US Supreme Court cited Hanushek’s claims to support the assertion that “court-imposed funding mandates” have minimal effectiveness. Since there is little or no relationship between educational spending and achievement test scores, goes this line of reasoning, there is no compelling obligation for states to provide equality or adequacy in education funding – nor to raise taxes.

In a widely cited and influential 1986 article, Hanushek tallied up the number of research reports that had positive results and those that had negative results and concluded that “Variations in school expenditures are not systematically related to variations in student performance.” Hedges, Laine and Greenwald, among others, challenged this conclusion, pointing out that Hanushek had lumped good work with poor work and simplistically “vote counted” the number of studies on each side of the question. When Hedges et al. eliminated the weak studies, support for Hanushek’s claims disappeared. In their analysis of the remaining 60 studies they found “systemic positive relations between resource inputs and school outcomes.” Further, the size of the effect was large enough to be of practical significance.

The Debate Evolves: Where Does Money Matter?

By the 1990s, a strong school finance litigation push had emerged, first focused on equitable distribution of funding and then focused on the adequacy of funding. The outcome from the majority of cases agreed with Judge Manning – money matters. Even Hanushek, it should be noted, does not argue that money does not matter at all; he quickly acknowledged that money matters “somewhere.” Thus, the debate evolved into how much it matters and where it matters.

Looking at NAEP scores in 1997, Wenglinsky identified factors that caused increases in achievement. For fourth graders, new money led to increased expenditures on instruction and school district administration, which then led to more favorable teacher-student ratios. In turn, this raised average achievement in mathematics. For eighth graders, the increased teacher-student ratios reduced problem behaviors, thereby improving the social climate of the school. This led to improved classroom environments and increases in math scores.
Expenditures related to capital outlays, school-level administration, and teacher education levels (but not pay) were not found to increase achievement.\textsuperscript{21}

Even with this research, Baker and Welner\textsuperscript{22} concluded that two major problems remained: (1) test scores are a narrow measure of desired school outcomes, and (2) previous work was too correlational, not allowing for causal inferences. Johnson, Jackson and Persico got around the first problem and partially addressed the second, in their examination of data in 28 states that had implemented finance reforms between 1970 and 2010. In addition to measuring short-term outcomes, they followed up on long-term outcomes in students’ lives. The results were significant and meaningful. A 20\% \textquotedblleft increase in per-pupil spending each year for all 12 years of public school leads to 0.9 more completed years of education, 25 percent higher earnings, and a 20 percentage-point reduction in the annual incidence of adult poverty.” The gains were achieved primarily by lower student-to-teacher ratios, increases in teacher salaries, and longer school years. Gains were strongest for economically deprived children and were strong enough to eliminate from two-thirds to all of the adult outcome gaps between those raised in poor and non-poor families.\textsuperscript{23}

Similarly, LaFontaine, Rothstein and Schanzenbach demonstrated that state finance reform led to immediate and sharp increases in spending\textsuperscript{24} following court decisions. These were then followed by more gradual increases in NAEP scores. Baker confirmed gains from teacher salaries and small class sizes.\textsuperscript{25} At this point, a consensus had emerged.

**Conclusions and Recommendations: Where Should We Invest?**

- Adequate and equitable distributions of school financial resources are a necessary underlying condition for maintaining democracy, improving school quality and equality of outcomes.\textsuperscript{26}
- While specific results vary from place to place, in general, money does matter and it matters most for economically deprived children.\textsuperscript{27}
- Gains from investing in education are found in test scores, later earnings, and graduation rates.\textsuperscript{28}
- The largest gains in achievement have been in states that have undertaken fundamental financial reforms.\textsuperscript{29}
- In any case, money must be spent wisely. In some cases, necessary expenditures (facilities, administration, etc.) will not be reflected in academic gains.\textsuperscript{30}
- Among the most productive investments resulting from increased spending are\textsuperscript{31}
  - High-quality preschool
  - Small class sizes – particularly in lower grades and for economically deprived children.
  - Teacher pay
  - Additional learning time has a positive effect on academic motivation and low-performing students.\textsuperscript{32}
Notes and References


For a review of this paper see:


See also:


31 See, for example, National Access Network monographs at http://www.schoolfunding.info/policy/programs%20that%20work.php3
Ask a parent if they want their child in a class of 15 or a class of 25. The answer is predictable. Intuitively, they know that smaller classes will provide more personalized attention, a better climate, and result in more learning. Ask teachers, and they will wax eloquent on the importance of small classes in providing individual support to their students. But ask a school board or district administrator, contending with a tight budget. They ask if the average class size can be a bit bigger.

Teacher pay and benefits are the largest single school expenditure, representing 80% of the nation’s school budgets. Thus, small class size is a costly, important, contentious and perennial issue.

The Research on Class Size

There are many studies of the impact of smaller classes and they vary widely in quality. As a result, proponents from all perspectives can cherry-pick studies that support their point of view.

But let’s look closer. There is, in fact, an independent consensus on what we know:

This material is provided free of cost to NEPC’s readers, who may make non-commercial use of the material as long as NEPC and its author(s) are credited as the source. For inquiries about commercial use, please contact NEPC at nepc@colorado.edu.
One of the earliest influential meta-studies was by Glass and Smith in 1979. They statistically analyzed 300 reports involving almost 900,000 students. Once the class size fell below about 15, learning increased progressively as class size became smaller.

The most prominent study supporting smaller class sizes was the Tennessee STAR (Student/Teacher Achievement Ratio) experiment. The STAR experiment was a four-year statewide random-assignment experiment. Students in Kindergarten in the same schools were randomly assigned to classes of 13-15; to classes of 22-25 with a teacher’s aide; or to classes of 25 without a teacher’s aide. In the early studies, these students were followed through grade 3. In practice, the small classes ranged in size from 13-18 and the large classes from 22-28. It is worth noting that even the larger classes were smaller than most classes in those grades in Tennessee at the time. The smaller classes performed substantially better by the end of second grade in test scores, grades, and fewer disciplinary referrals.

The gains lasted. The students that had been assigned to smaller classes were more likely to graduate in four years, more likely to go to college, and more likely to get a degree in a STEM field. The positive effect was twice as large for poor and minority students, and thus narrowed the achievement gap. The original STAR study and follow-up reports, called the Lasting Benefits Studies, and subsequent Project Challenge had an impact in the political arena. President Bill Clinton proposed a $12 billion class size reduction program in his 1998 State of the Union address that was subsequently adopted by Congress.

Molnar et al. (1996-2001), in a well-designed series of five annual evaluations of the Wisconsin SAGE (Student Achievement Guarantee in Education) class size reduction program utilizing a quasi-experimental design, reproduced the STAR results. With class sizes of 15, they found significant and substantial effect sizes of 0.2 standard deviations, indicating that class size was a very effective school improvement strategy. Gains were greatest for African-American students, and teachers reported better classroom climates and fewer discipline problems. The continuation of small class sizes into the higher grades increased its impact. But cost considerations resulted in class size reduction activities being concentrated in the lower grades, mostly among economically deprived and children of color.

Over the years, Erik Hanushek of the Hoover Institute has taken a more skeptical look. He performed a “meta-analysis” of 277 studies in 1997, claiming that class size reduction was not an effective school reform strategy. He argued that class sizes have dropped over the last half of the twentieth century with no corresponding increase in achievement scores. In summary,

Surely class size reductions are beneficial in specific circumstances—for specific groups of students, subject matters, and teachers. Second, class size reductions necessarily involve hiring more teachers, and teacher quality is much more important than class size in affecting student outcomes. Third, class size reduction is very expensive, and little or no consideration is given to alternative and more productive uses of those resources. (p. 5)

Hanushek’s analysis was criticized on methodological grounds in that he gave more weight to studies that showed no impact from lowering class size, while also treating weak studies as equivalent to those that were experimental and/or of much higher quality. He was also questioned about his claim that teacher quality was more important than class size in affecting student outcomes. Moreover, in re-analyzing the Tennessee STAR data, Alan Krueger not only concluded that class size reduction had economic benefits that outweighed the costs, and even within the large cohort of 22 to 25 students, the smaller the class, the better
the student outcomes."\(^{10}\) Mosteller also reported sustained effects and “the effect size for minorities was about double that for majorities.”\(^{11}\)

Krueger noted, as have many others, that class size reduction most benefits minority and disadvantaged students, and would be expected to narrow the racial achievement gap by about one-third. He also estimated that the economic gains of smaller classes in the early grades outweighed the costs two to one.\(^{12}\) While experimental studies have not been done for the middle and upper grades, there are many controlled studies, including longitudinal studies, showing gains in student outcomes for smaller classes at these grade levels.\(^{13}\) Many of these studies also show improvements in student engagement, lower drop-out rates and better non-cognitive skills. One longitudinal study revealed that smaller classes in eighth grade led to improvements in persistence and self-esteem, and that for urban schools, the economic benefits from investing in smaller classes would likely save nearly twice the cost. A study done for the US Department of Education analyzed the achievement levels of students in 2,561 schools, as measured by performance on the NAEP (national) exams. After controlling for student background, the only objective factor found to be positively correlated with student performance was class size. Student achievement was even more strongly linked to smaller classes in the upper grades.\(^{14}\)

In recent work (2015), Jackson, Johnson and Persico investigated the effects of school finance reform in 28 states. They followed the infusion of new money between 1970 and 2010, and found, “…a 10% increase in per-pupil spending each year for all 12 years of public school leads to 0.27 more completed years of education, 7.25 percent higher wages, and a 3.67 percentage-point reduction in the annual incidence of adult poverty.” They concluded that the gains were achieved primarily by lower student-to-teacher ratios, increases in teacher salaries, and longer school years. Gains were strongest for economically disadvantaged children and were sufficient to eliminate from two-thirds to one hundred percent of the adult outcome gaps (i.e. - wages, education level, percent in poverty) between those raised in poor and non-poor families.\(^{15}\)

Overall, the literature on class size reduction is clear and positive. The “overwhelming majority” of peer-reviewed papers find it an effective strategy.\(^{16}\)

### Further Policy Considerations

#### Supply of Teachers

An oft-heard reservation about class-size reduction is that there are not enough well-qualified teachers to make the system work. However, in California’s billion dollar Class Size Reduction initiative, achievement increased for all groups, but there was little or no evidence that the need to hire more teachers led to lower quality teachers in the long run. When the Los Angeles Unified School District needed to triple its hiring of elementary teachers following the state’s class-size reduction initiative, there was no reduction in mean teacher effectiveness.\(^{17}\) In addition, some studies point to lower teacher attrition rates when class sizes are reduced, which would likely lead to a more experienced and effective teaching force overall.\(^{18}\)
Wash-Out Effects

Most of the research has been conducted in the early grades (K-3). This led some to questioning whether the effects are lasting or are cost-effective. Though Harris contended the effects wash out by seventh grade, Krueger and Schanzenbach found gains in college entrance exams and especially among minority students. In fact, they concluded that small classes through eighth grade cut the achievement gap by 54%. Dynarski, et al. found gains in college attendance, graduation rate, and a higher likelihood of graduating with a STEM degree. Jackson, Johnson and Persico found sustained long-term social and economic effects in their 28-state work. Chetty, et al found that students from smaller classes in kindergarten had a greater likelihood of attending college, owning a home and holding a 401K more than 20 years later.

Non-Cognitive Effects

In addition to the gains listed above, college attendance, graduation rate, student engagement, persistence and self-esteem is reported as higher. The gains in test scores are attributed to the greater individualization of instruction, better classroom control and, thus, better climate. Teachers have more time for individual interactions with children, consulting with parents, and giving greater attention to grading papers.

As Compared to Other Reforms

There is little evidence indicating that other reforms would be more effective at a lower cost. While teacher quality is undoubtedly important, those who argue that improving teacher quality would be more cost-effective present no comparative data from experimental or controlled studies.

Recommendations

- Class size is an important determinant of student outcomes, and one that can be directly determined by policy. All else being equal, lowering class sizes will improve student outcomes.
- The payoff from class-size reduction is greater for low-income and minority children. Conversely, increases in class size are likely to be especially harmful to these populations -- who are already more likely to be subjected to large classes.
- While lowering class size has a demonstrable cost, it may prove the more cost-effective policy overall particularly for disadvantaged students. Money saved today by increasing class sizes will likely result in additional substantial social and educational costs in the future.
- Generally, class sizes of between 15 and 18 are recommended but variations are indicated. For example, band and physical education may require large classes while special education and some laboratory classes may require less.
Notes and References


This is a section of Research-Based Options for Education Policymaking, a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. Research-Based Options for Education Policymaking is published by The National Education Policy Center and is made possible in part by funding from the Great Lakes Center for Education Research and Practice.

The National Education Policy Center (NEPC), housed at the University of Colorado Boulder School of Education, produces and disseminates high-quality, peer-reviewed research to inform education policy discussions. Visit us at: http://nepc.colorado.edu
A founding premise of charter schools is that deregulation will free teachers, principals and schools to excel. Regulation or accountability in the conventional sense would be unnecessary, as competition and the market model would be the driving quality control force. Schools not doing a good job of educating children would either have to adapt or go out of business.

Embracing this philosophy, 43 states and the District of Columbia have adopted some form of charter schools.\(^2\) Growing rapidly, charter schools enrolled 2.5 million students or 5.1\% of the student population in 2013-14.\(^3\) Electronic or cyber charter schools have been established in 24 states, with 20 of those 24 states requiring some form of additional oversight of those schools.\(^4\)

But like many new enterprises that have a free hand in the beginning, cracks and fissures erupted. Charges of corruption,\(^5\) fiscal exploitation,\(^6\) weak academic performance,\(^7\) and intentional segregation\(^8\) spread across the charter sector. Since public dollars are involved, some legislators concluded that market-based accountability was insufficient and they called for external accountability and regulation.\(^9\)
Accountability of Charter Schools: The Primary Requirements

Public money usually comes with regulatory strings, such as reporting, transparency and guidelines for spending and business practices. Charter schools should be no exception.\textsuperscript{10} Elements of charter accountability can be grouped into four broad domains, each of which is discussed in greater depth below:

- **Academic Performance** – In charter schools, this fundamental accountability requirement is most commonly satisfied by demonstrated academic performance, usually by standardized tests. This requirement has proven stronger in rhetoric than in fact.\textsuperscript{11}
- **Equal Opportunity and Non-discrimination** – Numerous studies show lower enrollments of at-risk students in charter schools. Discipline records show greater proportions of children of color being suspended or pushed out.\textsuperscript{12}
- **Financial Solvency and Stability** – Particularly problematic have been charter schools with financial irregularities or which went bankrupt in mid-year.
- **Safety** – Building codes, health and safety standards must be met.

**Academic performance**

Research comparing charter schools to non-charters on standardized test scores has been hampered by unmeasured differences in the two student populations, driven in part by charter practices that shape their enrollment.\textsuperscript{13} But the large body of research in this area—well over 80 independent and generally accepted studies—has yielded the consistent finding that, after controlling for student demographics, charter schools show test-score results at levels that are not meaningfully better or worse than district schools.

The most rigorous and extensive study, commissioned by the US Department of Education, was undertaken by Mathematica. The researchers examined a sample of oversubscribed charter middle schools and compared students at those schools to students who were on the waiting list but were not offered a seat. This longitudinal study showed no overall effect for charter schools.\textsuperscript{14} It did find that urban charter school students did slightly better and suburban charter school students did slightly worse.\textsuperscript{15}

One of the most frequently quoted works is the Stanford CREDO study that found slightly positive results for urban charter schools.\textsuperscript{16} The magnitude of the differences was statistically significant simply because the number of cases was high. UCSB Professor Andrew Maul pointed out, “the actual effect sizes reported are very small, explaining well under a tenth of one percent of the variance in test scores.” He added, “To call such an effect ‘substantial’ strains credulity.”\textsuperscript{17}

**Equal Opportunities and Discrimination**

There is a substantial body of research demonstrating that charter schools are adding to segregation by race, class, academic achievement, special education status, and English-Language Learner status.\textsuperscript{18}
Examining all Pennsylvania student transfers, Kotek et al found that Black and Hispanic transfers were segregative. White student transfers also tended to be segregative. Discrimination by special education status and academic performance is also documented. Reviewed by special education status and English-Language Learner status, charter schools were again much more segregative than the local district schools.

Interestingly, even the charter advocacy community has recently called for charter schools to address access issues for students with special needs. In addition, Education Secretary John King, a long-time charter advocate and former charter leader, recently called upon charters to rethink their discipline policies that have contributed to the school-to-prison pipeline.

Finance and Closures

News reports have documented a great number of financial irregularities, particularly surrounding educational management corporations in large urban areas. Exorbitant salaries, the sale of public property, excessive rent, and conflicts of interest are among the recurring themes. The “Charter School Gravy Train,” as Forbes Headlined it, raised questions about political influence, profiteering, and ineffective schools. A Pinellas County, Florida corporation was indicted for grand theft, money laundering, and aggravated white collar crime. But unexpected mid-year closures and financial shortfalls can also be due to inadequate capitalization and lack of financial inexperience.

Yet, with substantial public monies changing hands, financial regulation is just as essential for charter schools as it is for traditional public schools.

Facility Adequacy and Safety

Charter schools are sometimes housed in excellent and even state-of-the-art buildings; but others are located in lower quality facilities, such as an older repurposed building. Charter advocates see this as unfair, since traditional public schools generally have greater access to district facilities, leading to calls for state facilities funding and bonding authority by charter advocacy groups. Advocates for traditional public neighborhood schools, however, see charters and the parallel system they create as driving enrollment uncertainty, turmoil and inefficiency. In any case, issues such as asbestos and lead pipes require full inspections and remedies for any problems. These obstacles accentuate compliance concerns with contemporary building and safety codes. Questions also arise as to whether facilities meet applicable grant requirements and handicapped access requirements, and whether sharing of libraries, gyms and fields is feasible.

Recommendations

The laws and/or regulations for charter schools vary widely in content and focus. These need to be periodically updated; otherwise state policymakers will not have fulfilled their obligation to protect the safety, welfare and educational entitlements of children. The following list of recommended policies is not comprehensive. Rather it is focused on the domains listed above.

http://nepc.colorado.edu/publication/research-based-options
**General process requirements:**

- The authorizer must specify and enforce all criteria for granting charters and the length of time the charter will remain in effect.

- The authorizer must specify and enforce the grounds, circumstances and procedures for revoking charters. These must include the minimum academic level children must attain if the school is to maintain its charter. Only 11 states currently have such procedures.\(^{31}\)

- The authorizer must specify and enforce the accountability mechanism for charter schools. Notwithstanding the many shortcomings of test-based accountability policies, the same tests and accountability mechanisms and sanctions required for traditional public schools are necessary in order to assure equality of opportunity as well as comparability of data. All states that provide for charter schools require them to meet state testing and accountability requirements. Currently, 29 states do not have sanctions for charter school authorizers.\(^{32}\)

- Monitoring and oversight must be strong and fully funded by the state.\(^{33}\)

**Operational requirements:**

- School governance must be representative and transparent. Budgets, governance involvement and reporting to the public must equal or surpass traditional public schools.\(^{34}\)

- Charter schools must have publicized admissions procedures that create broad access, and they must demonstrate evidence of their use.

- Policies to mitigate segregation, as described in an earlier brief in this series,\(^{35}\) must be implemented.

- School discipline policies must be fair and transparent.

- At least once each year, the operator must post and distribute an annual report that includes the proposed budget employing the state’s chart of accounts, auditor's report, a report on key activities past and planned, and school and comparison area demographics. About 12 states do not have a requirement for such a report.\(^{36}\)

- The charter school must comply with all relevant building codes, inspections, bidding laws, employee background checks, and similar requirements.

Again, this is not meant to be a comprehensive list. State policies must also designate the authorizing body(s) along with its authorities and its composition. Among other considerations are conditions for revocation of charters, due process procedures, caps on the number of schools, faculty requirements, and special rules for cyber schools.

For related and more detailed recommendations, see


Notes and References

1 Guiding documents in this research brief –


5 See for example –


6 See, for example –


9 See, for example –


Regarding students with disabilities in particular, see the research cited in:


These results are confirmed in a series of high-quality studies that allow for tentative causal inferences. See:


Chi, W.C. (2011). Racial isolation in charter schools: Achieving the goals of diversity and constitutionality inthe post-PICS era (Doctoral dissertation, University of Colorado Boulder);


At least one high-quality study, however, does not show the usual stratification effects; instead, it showed segregative effects only for African American students, who were more likely to move to charters with a higher proportion of their own racial group: Zimmer, R.W., Gill, B., Booker, K., Lavertu, S., Sass, T.R., & Witte, J.


See for example –


http://nepc.colorado.edu/publication/research-based-options


This is a section of *Research-Based Options for Education Policymaking*, a multipart brief that takes up a number of important policy issues and identifies policies supported by research. Each section focuses on a different issue, and its recommendations to policymakers are based on the latest scholarship. *Research-Based Options for Education Policymaking* is published by The National Education Policy Center, housed at the University Of Colorado Boulder, and is made possible in part by funding from the Great Lakes Center for Education Research and Practice.

The mission of the National Education Policy Center is to produce and disseminate high-quality, peer-reviewed research to inform education policy discussions. We are guided by the belief that the democratic governance of public education is strengthened when policies are based on sound evidence. For more information on NEPC, please visit http://nepc.colorado.edu/