

Answering these questions and deepening our understanding of the reasons behind out-of-field teaching assignments is not only useful from a scientific perspective, but is also important because of the implications for policy. Parallel to the research realm, most recent federal, state, and local teacher policies and initiatives, including those in NCLB, have also focused on the same two general approaches to trying to ensure that all classrooms are staffed with qualified teachers: upgrading the qualifications of teachers and increasing the quantity of teachers. And, again, underlying these kinds of methods is a teacher deficit perspective—the source of the problem lies in deficits in the numbers, preparation, knowledge, ability, and licensing of teachers. Hence, the assumption is that the way to fix schools is to fix these deficits in teachers.

Of course, upgrading teacher recruitment, preparation, and certification practices and requirements can be useful first steps. But, the above methods do not address the ways schools themselves contribute to the problem of underqualified teachers. The data tell us that solutions to the problem of out-of-field teaching must also look to how schools are managed and how teachers are utilized *once on the job*. In short, recruiting thousands of new candidates and providing them with rigorous preservice preparation or inservice professional development will not solve the problem if large numbers of such teachers continue to be assigned to teach subjects other than those for which they were prepared.⁴³

Our analyses of the most recent SASS data provide an independent assessment of how things have progressed in terms of the highly qualified teacher requirements of NCLB. The data indicate that out-of-field teaching declined very little between the 1999–2000 school year (two years before NCLB) and 2003–04 (two years into NCLB). This is a discouraging finding, but perhaps also to be expected. If assigning teachers to teach out of their fields has been a prevalent school administrative practice for decades because it is more efficient and less expensive than the alternatives, then its elimination will not be easily accomplished simply by legislative fiat. To meet the goal of ensuring all students are provided with qualified teachers, states will need to rethink how districts and schools go about managing their human resources—a tall order. There is a clear role here for scientific data and research, but this is a cautionary tale and one that is also not yet finished.

Education Policy, Academic Research, and Public Opinion

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Perch yourself atop a stack of every education study published in the last couple of decades, and you will be looking down a good number of world-class skyscrapers. Universities, colleges, think tanks, testing organizations, and the public school system itself now employ an army of academics who study the single most prevalent public institution the world has ever known—schools. And each foot-soldier is eager to make a mark, to demonstrate that his or her research illuminates something crucial about how we educate our children, and about how we might do a better job of it. It is difficult to identify a single issue in education, no matter how arcane, that has not been the subject of sustained academic inquiry appearing online or in academic journals, industry trade publications, books, and edited volumes.

Given its sheer volume, education scholarship ought to hold a prominent place in public conversations about how best to characterize the state of education domestically, about which reforms hold the greatest promise in redressing persistent inequalities, and about how the nation ought to allocate billions of dollars each year to schools. It does not. For the most part, the U.S. citizens who vote for school board members and education bond initiatives, debate the merits of different education reforms, and ultimately decide the fate of proposed education policies, know very little about this research. These citizens do not subscribe to academic journals. They do not attend academic conferences. They do not follow the latest academic debates. Their

awareness of education research is dismayingly thin. And their interest in the kinds of methodological issues that consume education researchers is thinner still. Put a table of regression results in front of them and behold the many faces of bewilderment.

Do not confuse disinterest in education research, however, with disinterest in education. Citizens care greatly about America's schools and the children who attend them. Polls that ask citizens about the single most important issue facing the nation generally, and their local communities in particular, often rank education at or near the top. Citizens, moreover, are not wanting for opinions about education. They have plenty to say about what is wrong with the nation's schools and what needs to be done to fix them. When they attempt to close down a school, introduce a new family planning curriculum, implement an inter-district school choice program, or cut funding for the high school football team, districts reliably confront varying levels of outrage expressed by parents, public school employees, booster clubs, parent-teacher associations, and interested citizens.

And occasionally, education research does manage to percolate into the public conscience. General interest newspapers, specialty journals, and even television media outlets devote modest levels of coverage to education issues, at least some of which is dedicated to scholarly research. Increasingly, think tanks and universities are employing teams of well-connected consultants whose sole purpose is to publicize the latest education studies of their scholars and faculty. Their labors often pay considerable dividends. In the last several years, stories about new research on the effectiveness of charter schools, public schools, social promotion and discipline policies, and the federally mandated No Child Left Behind Act (NCLB) have been splashed across the nation's newspapers. Moreover, these news stories are often accompanied by editorials and op-eds that distill key findings and proffer a bevy of policy recommendations.

This chapter examines the possibility that citizens' mediated and sporadic exposure to education research influences their attitudes toward education policies. It reflects upon how citizens—who are not direct consumers of education research and who lack basic training in the modes of social scientific inquiry—use the paucity of information made available to them in news stories to formulate opinions about public education. After briefly surveying the relevant literatures on political behavior and survey design, the chapter introduces a simple experiment designed to further elucidate the varying impacts of academic research on public opinion about education policy.

A FEW REFLECTIONS ON PUBLIC OPINION

From the outset, we must dash hopeful notions that citizens interpret the world around them as do social scientists. The public engages education research—to the extent that it is even aware of education research—in fundamentally different ways than those who produce it. The basic principles of social scientific inquiry do not preoccupy your average citizen, who has never fixated on the tradeoffs between type one and type two errors, the appropriateness of a particular instrument designed to solve some selection problem, or the generalizability of findings from one study to a larger population of students, teachers, or parents. Citizens do not know the difference between an estimator's bias and efficiency—they do not have a clue what an estimator even is.

What citizens know about an education study, instead, is limited to what journalists tell them. Upon learning about a study that purports to show that charter schools outperform public schools (or any other policy issue), few if any citizens run down to their local library, download the original report, and formulate an independent and reasoned opinion about its strengths and weaknesses. Instead, citizens rely upon the media to tell them about the existence and relevant implications of important academic research. Citizens evaluate academic research on the basis of information found within the news story itself—typically, the identity of the individual or institution that produced the report, a core finding or two, and a handful of quotes from experts providing commentary. Rarely more, and often less.

Massive literatures detail the ways in which citizens' political views are poorly informed, unorganized, and unstable—leading Phillip Converse some 40 years ago to declare that citizens are best understood as having “non-attitudes.”¹ People know very little about factual matters involving politics generally, and specific public policies in particular.² Their stated opinions on one issue (say, the privatization of education) often have little relationship to those expressed on another related issue (say, federal grants to Catholic schools). There is little evidence that average citizens organize their views into anything resembling a coherent ideology. And the views that citizens express on any particular issue often change dramatically over time.

In many ways, the field of political behavior since Converse's seminal article can be understood as an ongoing effort to understand how, and whether, poorly informed and inattentive people navigate a complicated and evolving political universe, using as guides their partisan affiliation,³ retrospective voting,⁴ stereotypes,⁵ or other shortcuts.⁶ To be sure, disagreements linger

about whether people succeed or fail in this endeavor, and what implications this has for the health of our democracy. And much about the cognitive processes that people use to understand politics remain poorly understood. Still, the facts that motivate these higher-order debates, for the most part, remain uncontested—namely, average citizens know very little about politics, and they know even less about specific policies that do not have a direct bearing on their own lives or on those around them.

Given the state of public opinion, the persuasive appeal of academic research could turn out to be either weak or strong. On the one hand, public inattention would appear to mute possibilities for academic research to inform and persuade a broader citizenry. Most citizens, after all, rarely participate in the kinds of discussions about education policies that feature academic research. The problem is not merely that citizens do not subscribe to academic journals or attend professional education conferences. Rather, the problem is that citizens receive very little information about academic research in any form. And with the decline of newspaper readerships, the displacement of television news with soft news, and the massive proliferation of cable entertainment, streams of information appear to be running dry.⁷ Even those citizens who regularly sit with a newspaper in the morning and turn on the television at the end of a workday worry more about the cleanliness of their kitchens than they do about the state of American education (or the depletion of the ozone layer, the decline of American cities, trade imbalances with China, or the rising violence in the Middle East). Many citizens devote about the same amount of time and reflection to academic research on education as they do to imagining what it would be like to play a round of golf on the moon.

On the other hand, because citizens know so little about public policy, even small doses of research may induce large changes in public attitudes. A number of scholars have shown that citizens who know less about a chosen policy are especially susceptible to persuasion.⁸ If the views of citizens with low levels of information are generally pliable, they may be especially receptive to new research findings, which carry airs of objectivity and authority. Precisely because citizens lack substantial information about a range of education policies, they may willingly adopt conclusions from research studies that contradict their current views, such as they are. Told that a major study demonstrates that a popular program does not help children, or that an unpopular program does, citizens may concede the point and adjust their views accordingly.

WHETHER TO BELIEVE RESEARCH

Scholars of public opinion have made much of the fact that a poorly informed citizenry is especially vulnerable to demagoguery. Simple changes in the ways in which policies are discussed, the order of policy options put before an electorate, and subtle cues about the efficacy of a proposed reform can have a substantial influence on the expressed views of an inattentive public. Often, scholars have found, surveys can elicit policy choices that do not in any meaningful sense reflect the true views or deeper interests of a citizenry. And by tapping latent stereotypes or priming certain emotions or misrepresenting a body of evidence, elites also can direct public discussions in ways that serve their private interests, to the detriment of the larger public good.

The potential value of research, then, would appear profound. Through fair-minded presentations on the state of public education in America and the merits of a variety of education policies, scholars and the journalists who speak on their behalf can both inform average citizens (allowing citizens to discern their own, independent views) and inoculate them against the appeals made by interest groups on both the left and right (allowing them to more meaningfully participate in public debates about education). Indeed, academic research ought to serve the greatest need, and have the most influence, when citizens are asked to evaluate the merits of public policies about which they know very little.

It is important, though, not to be too Pollyannaish about the promise of academic research. Before heralding education scholars and the journalists who spread their good word as saviors of an ill-informed and easily manipulated public, we ought to face up to some less comforting truths. Too often, researchers unjustifiably advance conclusions that are not supported by their evidence. Interest groups and teachers unions fund their own research departments that churn out findings that, amazingly, again and again confirm their institution's favored positions. And from a purely methodological standpoint, much of what passes for education research—even that which is peer reviewed—is just plain poor.

Journalistic reports on academic research, meanwhile, are not without their own biases and shortcomings, as the various chapters in this volume make plain. Rather than carefully assessing the strengths and weaknesses of a particular study, journalists all too often conjure up controversy where it does not exist, focus on the personalities of the parties involved, look to vested interest groups for commentary, and give equal time and attention to

two sides of an issue even when the preponderance of evidence suggests that only one is right.

How do citizens, then, go about distinguishing bald rhetorical appeals (warranting disregard) from genuine scholarly advancements (demanding serious consideration)? Because they lack the time, inclination and training, citizens are obviously ill equipped to formulate independent judgments about the quality of the research itself. When deciding whether to update one's views in light of new research, therefore, citizens may look to the organization that produced it or the media outlet that reported on it. And depending upon a host of factors, some citizens may update their views, and others may not.

To understand the variable impacts that research can have on different citizens, it is worth recalling a well-established truth within the social sciences: Like-minded individuals have an easier time communicating with one another than do individuals with divergent worldviews;⁹ hence, average citizens tend to view fellow partisans as more reliable sources of political information than partisan opponents. Why? Citizens believe like-minded elites not because they have independent information to corroborate their views, but because citizens know that, on average, these elites will likely draw the same conclusions about the merits of a specific policy that the citizens would were they privy to the elites' private information. It is quite possible, then, that research will persuade only those citizens who trust the source that produced it. Conservative citizens may believe conservative research organizations, and liberal citizens may believe liberal research organizations, while across ideological divides, considerable discounting may occur.

Evidence of academic research's influence may further depend upon the current state of public opinion and the nature of the scholarly findings themselves. If it merely confirms citizens' prior views about the merits of a proposed education policy, then academic research may not disrupt the current constellation of public attitudes, at least not in the short term. Though citizens have a stronger basis upon which to justify their opinions, they may disregard any compunction to reconsider their prior views in light of new research. It is only when research conflicts with citizens' existing views that changes of opinion are likely to be detected. The influence of research on public opinion is most consequential when new findings offer citizens a substantive reason to abandon their current beliefs and adopt altogether new ones.

Academic research also may have an especially large impact on people's views when it allows them to realign their specific policy preferences with their more general ideological orientation. By way of example, consider two

citizens, one conservative and the other liberal, who both believe that most poor people do not work hard. Imagine, then, a research study that refutes this view, showing rather that the poor actually work longer hours than the rich. How are the two citizens likely to respond? The conservative, being conservative, has strong reasons to resist the finding. After all, this research would appear to challenge the various policy preferences—for instance, opposition to redistributive programs—that define conservatism. In contrast, this research is likely to have a relatively large impact on the liberal citizen. For him, after all, this research facilitates a realignment of his views about how the world works with the relevant beliefs that define his liberal orientation—in this instance, support for redistributive programs. If true, then the power of academic research would appear to depend upon the relationship between a study's precise findings and a citizen's ideological orientation.

Similarly, academic research may prove especially persuasive when it affirms an individual's private choices. To see this, consider the varying impacts of a hypothetical *Consumer Report* study on the relative quality of a \$40K BMW and a \$20K Honda. Most citizens naturally would believe that the BMW outperforms the less expensive Honda. Imagine, though, that the research found the Honda to be just as reliable as the BMW. People who drive BMWs, one can well imagine, will discount the study, clinging to whatever information they have that justifies their decision to spend twice the amount of the Honda. People who drive Hondas, however, are likely to find the study eminently persuasive. For these individuals, after all, the study vindicates their choice, demonstrating their acuity of judgment for having made the better automobile purchase. In this sense, the influence of academic research would appear to depend upon the interaction between a study's substantive findings and the people's prior choices in the relevant issue domain.

Even under ideal conditions, however, academic research simply may not resonate with the larger public. Just because it reaches citizens, comes from a trusted source, challenges conventional wisdom, or affirms either ideological inclinations or past choices, academic research may not influence the content of public opinion. On some issues, at least, some citizens simply may not care about the current state of scholarship. A study finding that the death penalty effectively deters criminal activity may not influence by one iota the views of citizens who believe that all life is precious and that the government, as a matter of principle, should not be granted the power to kill any of its citizens. Similarly, findings that school vouchers improve the test scores of African American children may appear irrelevant to those citizens who retain an abiding belief in the value of public education, and whose

preferences are informed more by ideology than a dispassionate reading of existing scholarship. If the foundation of public discourse on matters involving education rests entirely upon normative claims about right and wrong, vested interests, and ideological commitments, academic research may not serve any role whatsoever.

Ultimately, it is an empirical question whether academic research can shape the thinking of citizens who oversee the education of their own children and who hold accountable those elected officials charged with overseeing the education of all children. In the next section, I examine survey data that speak to this issue, identifying the differential impacts that research can have on the education views of diverse segments of the American public.

SOME EMPIRICAL FINDINGS ABOUT, WELL, THE IMPACT OF EMPIRICAL FINDINGS

To gauge the willingness of different segments of the American public to update their views about education in light of new research findings, I conducted a simple experiment. With a stratified, nationally representative survey of 2,000 adults, I randomly assigned individuals to one of five (one baseline, four treatment) conditions that presented short vignettes about research conducted on the test scores of students in public and private schools.¹⁰ I then asked respondents their own views about the performance of students in the two sectors. Because respondents were randomly assigned to each of the five conditions, differences observed in their answers can reliably be attributed to differences in the vignettes themselves, and not the background characteristics of the respondents.

Table 6.1 summarizes the conditions of the experiment. In the baseline condition, respondents were told: "A prominent research organization in Washington, D.C., recently released a study comparing the test scores of similar students in private and public schools." Neither the findings from the study nor the ideological orientation of the research organization were presented. The respondent was only told that research had been conducted, and then was asked, "What about you? Do you think similar students who attend private or public schools score higher on standardized tests?" Respondents then could choose from three response categories: private school students score higher; public school students score higher; there is no difference. The structure of the treatment conditions looks much like that of the baseline condition. The differences are that the vignette informs the respondent that either a prominent liberal or a prominent conservative research organization released the study finding; and that private school students either do or do

TABLE 6.1 Study Design

Baseline condition	"A prominent research organization in Washington, D.C., recently released a study comparing the test scores of similar students in private and public schools."
Treatment condition 1	"According to a prominent conservative research organization in Washington, D.C., students in private schools score higher on tests than comparable students in public schools."
Treatment condition 2	"According to a prominent liberal research organization in Washington, D.C., students in private schools score higher on tests than comparable students in public schools."
Treatment condition 3	"According to a prominent conservative research organization in Washington, D.C., students in private schools do not score higher on tests than comparable students in public schools."
Treatment condition 4	"According to a prominent liberal research organization in Washington, D.C., students in private schools do not score higher on tests than comparable students in public schools."
Question	"What about you? Do you think similar students who attend private or public schools score higher on standardized tests?"
Response choices	a. Private school students score higher b. Public school students score higher c. There is no difference

Note: Subjects were randomly assigned to one of the five conditions. All subjects were asked the same question and offered the same response categories.

not score higher than comparable public school students. The two types of research organizations and two sets of findings generate the four treatment conditions ($2 \times 2 = 4$) that complete the experiment.

To determine whether respondents update their views in light of new research conducted by different types of organizations, answers observed in each of the treatment conditions are compared to those in the baseline condition. Again, because we have randomly assigned subjects to each of the survey conditions, to discern the influence of different research findings on public attitudes about education we do not need to include controls for socio-economic characteristics, their television viewing habits, or anything else. Instead, unbiased estimates can be recovered from direct comparisons of people's responses in the baseline and four treatment conditions. We therefore focus on the average proportion of people who claim that private school students outperform their public school peers.

From the outset, though, we should recognize that this constitutes a hard test of the proposition that research can meaningfully inform the views of average citizens. Indeed, one might expect that research will prove incapable

of dislodging the essentially normative underpinnings of the public's views about public and private schools. Indeed, if we find that at least some elements of the American public respond to research about the performance of students in public and private schools, we can reasonably expect many others to find research persuasive on education issues that are not so politically charged.

Findings for the Overall Population

Table 6.2 presents the main findings. Overall, roughly three in four adults nationwide believe that private school students outperform their public school peers. We do not know why respondents express this belief. Perceptions about the relative quality of school teachers or facilities, the strength of peer groups, the selection processes that place students into schools, differences in schooling climates, or the simple fact that private schools charge tuition and public schools are (nominally) free may guide their responses. Whatever the source, though, in the eyes of the general public, private school students stand a notch above their public school peers.

Interestingly, being told that academic research confirms this view does not have any systematic effects on the public's overall responses. Whether it is a liberal or a conservative organization that purports to find that private school students outperform their public school peers, registered responses vary by just a percentage point or two from the baseline condition—differences that do not even approach standard thresholds of statistical significance. When told about research that public school students score just as high as private school students, however, public responses change dramatically. Again, on average it does not matter whether the research organization is liberal or conservative. The mere acknowledgment of a research study finding that public school students score just as high as private school students is enough to convince almost 30 percent of surveyed adults to express a different perspective about the issue.

On the basis of these findings alone, advocates of private schools would appear to be engaged in a losing battle. Academic research that confirms their preferred view—namely, that private school students score higher on standardized tests than public school students—does not influence the views of the broader public. A single study that finds no difference between the test scores of students in the two sectors, meanwhile, can have devastating consequences. Without any discussion of the study's characteristics (the population of students, schools, and cities sampled, for instance) or quality (the comparability of public and private school students, the number of subjects tested, the availability of baseline data, etc.), the mere mention of a negative

TABLE 6.2 Beliefs of Overall Population

	Average % [†]	n
Baseline condition	74.5	403
<i>Differences between treatment conditions 1–4 and baseline condition</i>		
Private higher, report by conservative think tank	2.6	389
Private higher, report by liberal think tank	-1.0	403
Private not higher, report by conservative think tank	-27.1*	395
Private not higher, report by liberal think tank	-25.5*	394

Note: The baseline condition reports the average percentage of people who believe, after only being told that a prominent think tank recently issued a report on the topic, that students in private schools perform higher on standardized tests than similar students in public schools. In the treatment conditions, respondents are told the ideological orientation of the think tank (liberal or conservative) and the finding of the report (private school students did or did not score higher than comparable public school students). Reported figures for treatment conditions indicate the percentage-point differences relative to the baseline condition. Positive values indicate a higher percentage of people who believe that private school students score higher than public school students; negative values indicate a lower percentage.

* Significant at $p < 0.10$, two-tailed test. Post-stratification weights employed.

† Percentage of people who believe that students in private schools score higher than similar students in public schools.

finding reduced by roughly 26 percentage points the number of people willing to adopt the common view that private school students outperform their public school peers on all matters academic.

Findings for Liberals and Conservatives

Table 6.3 disaggregates the findings for self-described liberals, moderates, and conservatives. In the baseline conditions, the three groups of respondents look almost identical to one another. Across the ideological spectrum, roughly three in four adults profess that private school students outperform public school students. The groups respond quite differently, though, across the various treatment conditions. Neither liberals nor moderates appear at all affected by research from either liberal or conservative research organizations finding that private school students score higher than public school students. Indeed, only the responses of conservatives appear affected by research that confirms the view endorsed by most people in the baseline condition. And the only instance when the effect is statistically significant is when conservative respondents learn about research from conservative research organizations. Told that a conservative research organization recently released a study

TABLE 6.3 Beliefs among Liberals, Moderates, and Conservatives

	Liberals		Moderates		Conservatives	
	Average %†	n	Average %†	n	Average %†	n
Baseline condition	74.5	84	73.9	154	75.4	155
<i>Differences between treatment conditions 1–4 and baseline condition</i>						
Private higher, report by conservative think tank	4.1	114	-4.5	148	7.9*	138
Private higher, report by liberal think tank	-7.8	94	-1.6	143	4.7	152
Private not higher, report by conservative think tank	-30.6*	115	-34.7*	125	-17.2*	161
Private not higher, report by liberal think tank	-36.9*	99	-25.5*	153	-16.8*	142

Note: See note to Table 6.2.

* Significant at $p < 0.10$, two-tailed test. Post-stratification weights employed.

† Percentage of people who believe that students in private schools score higher than similar students in public schools.

finding that private school students outperform public school students, conservatives appear roughly 8 percentage points more likely to endorse the view than in the baseline condition.

Differences across the three ideological groups are also observed in the other treatment conditions. When told that either a liberal or conservative research organization released a study finding that public school students scored just as high as private school students, liberals abandon in droves the common view represented in the baseline condition. Indeed, belief in the superiority of private school students is cut in half among liberals in the third and fourth treatment conditions. Conservatives, in contrast, do not appear as affected by the research findings described in the last two treatment conditions. Though the observed differences are in the same direction and statistically significant, the magnitudes of the effects are roughly half as large. Told that a liberal research organization issued a report finding that public school students score just as high as private school students, fully 59 percent of conservatives continue to believe that private school students score higher than public school students, as compared to just 38 percent of liberals.

TABLE 6.4 Beliefs among School Voucher Supporters and Opponents

	Support Vouchers		Oppose Vouchers	
	Average %†	n	Average %†	n
Baseline condition	78.7	178	76.7	156
<i>Differences between treatment conditions 1–4 and baseline condition</i>				
Private higher, report by conservative think tank	3.6	179	-7.1	165
Private higher, report by liberal think tank	0.5	162	-5.0	150
Private not higher, report by conservative think tank	-20.8*	161	-33.1*	169
Private not higher, report by liberal think tank	-17.3*	171	-39.0*	140

Note: See note to Table 6.2. Voucher supporters and opponents were identified on a prior survey question.

* Significant at $p < 0.10$, two-tailed test. Post-stratification weights employed.

† Percentage of people who believe that students in private schools score higher than similar students in public schools.

These findings are not altogether surprising. Though liberals and conservatives share a common view about public and private school students generally, their willingness to update these views in light of new research critically depends upon the extent to which this research comports with their ideological priors. As previously discussed, citizens resist findings that challenge their ideological priors, and endorse those that confirm them. We know that liberals are much more likely to support increased spending for public schools and higher salaries for public school teachers than are conservatives; and that conservatives are more likely to support choice-based initiatives like charter schools and vouchers. Armed with research that would appear to bolster their positions—as conservatives are in treatment conditions 1 and 2, and liberals are in treatment conditions 3 and 4—evidence of updating is observed. But where academic research challenges the wisdom of one's policy preferences—as treatment conditions 3 and 4 do for conservatives, and treatment conditions 1 and 2 do for liberals—the estimated effects either disappear or attenuate substantially. Plainly, the assessed value of academic research depends upon its congruence with previously held policy preferences.

Table 6.4 drives this point home. Rather than distinguishing liberals from conservatives, here adults who support school vouchers are differen-

tiated from those who oppose them—a distinction made possible by a prior question in the survey.¹¹ Again, in the baseline condition, both groups look almost identical; the views of neither group appear to change much when told that academic research confirms the view held by most people in the baseline condition. The estimated differences from the baseline condition in the final two treatment groups, however, vary markedly for supporters and opponents of vouchers. When told that a liberal research organization just released a report finding that public school students score just as high as private school students, the expressed views of voucher opponents dropped by a whopping 39 percentage points relative to the baseline condition. For voucher supporters, however, the change was a more modest 17 percentage points. Additionally, there is some evidence that voucher proponents are more sensitive to conservative research organizations, while voucher opponents are more prone to update their views in response to liberal research organizations. Within-group differences across treatment conditions 1 and 2 and conditions 3 and 4, however, are not statistically significant.

Findings for Public and Private School Parents

Table 6.5 shifts tack slightly. Rather than disaggregate respondents according to their ideological predispositions or policy preferences, this comparison looks at public school parents, private school parents, and nonparents. Here, for the first time, there are differences within the baseline conditions across the three groups. Private school parents are 14 percentage points more likely than public school parents to claim that private school students score higher than their public school peers. Given that the former group has opted to pay the extra costs of sending their child to a private school, this finding can hardly come as a surprise. Comparable findings can be expected when comparing the assessments of comparable consumers in virtually any other domain of life (including those who purchase Hondas and BMWs).

As one would expect, public school parents appear especially sensitive to treatment conditions 3 and 4, and completely unaffected by conditions 1 and 2. When told about research that public school students score just as high as private school students, less than 50 percent of public school parents claim that private school students outperform their public school peers. Private school parents, meanwhile, appear unaffected by any research findings from liberal organizations, though they update their views by comparable magnitudes and in the expected directions when told about research from conservative organizations. Though the effects are never statistically significant—largely because of the small number of available observations—support for the conventional wisdom increases by 11 percentage points in the

TABLE 6.5 Beliefs among Public School Parents, Private School Parents, and Nonparents

	Public School Parents		Private School Parents		Nonparents	
	Average %†	n	Average %†	n	Average %†	n
Baseline condition	70.4	136	83.5	35	75.3	244
<i>Differences between treatment conditions 1–4 and baseline condition</i>						
Private higher, report by conservative think tank	6.7	170	11.2	43	-0.4	226
Private higher, report by liberal think tank	-0.6	159	1.5	35	-3.7	222
Private not higher, report by conservative think tank	-24.8*	155	-13.4	27	-28.9*	248
Private not higher, report by liberal think tank	-29.2*	147	-4.7	31	-26.3*	239

Note: See note to Table 6.2. Public school parents, private school parents, and nonparents were identified on a prior survey question.

* Significant at $p < 0.10$, two-tailed test. Post-stratification weights employed.

† Percentage of people who believe that students in private schools score higher than similar students in public schools.

first treatment condition and declines by 13 percentage points in the third. In fact, private school parents support the conventional wisdom at roughly the same rate in the third treatment condition as public school parents do in the baseline condition.¹²

In this instance, the willingness of adults to update their views in light of new research depends less upon their ideological priors, and more upon the individual choices that they have made on behalf of their children. Public school parents appear unaffected by research that challenges their decision to send their children to public schools; they are quick, though, to update their beliefs in light of research that confirms their decision to send their children to public schools. Having decided to pay the extra costs of a private education, private school parents appear less susceptible to persuasion of any kind; when they are, their belief in the superiority of private school students increases in light of confirming research by roughly the same magnitude as it drops in light of evidence to the contrary; and never does less than 70 percent of the population profess that private school students outperform public school students.

TABLE 6.6 Beliefs among Individuals from Households with Different Levels of Education

	Up to Some College		Associate Degree or Above	
	Average %†	n	Average %†	n
Baseline condition	75.1	212	73.7	182
<i>Differences between treatment conditions 1–4 and baseline condition</i>				
Private higher, report by conservative think tank	-1.6	226	11.7*	177
Private higher, report by liberal think tank	-3.3	220	4.1	169
Private not higher, report by conservative think tank	-33.3*	207	-18.5*	196
Private not higher, report by liberal think tank	-24.0*	242	-30.5*	153

Note: See note to Table 6.2. Education of head of household was identified on a prior survey question.

* Significant at $p < 0.10$, two-tailed test. Post-stratification weights employed.

† Percentage of people who believe that students in private schools score higher than similar students in public schools.

The precise cognitive processes that generate these findings remain unclear. It is possible that public and private school parents are merely searching for ex post justifications for their decisions to send their children to different types of schools. Alternatively, at least some public school parents may have investigated private schooling options and decided that they are no better than public schools. It is also possible that at least some private school parents remain convinced that public school students simply do not measure up to their private school peers. If true, then the research findings presented in the various treatment conditions have to be weighed against the different types and amounts of information that public and private school parents already retain about the quality of students in the two education sectors. Whichever the explanation, though, the persuasive appeal of new academic research appears conditional upon the personal educational choices that different parents have made on behalf of their children.

Findings for Selected Other Subgroups

Next, we compare more and less educated respondents, the results for whom are presented in Table 6.6. For reasons previously outlined, one might expect the responses of less-educated individuals to be more pliable, and those of

TABLE 6.7 Beliefs of Individuals with Different Evaluations of Public Schools

	Give Schools Grade of A or B		Give Schools Grade of C, D, or F	
	Average %†	n	Average %†	n
Baseline condition	66.4	186	79.5	197
<i>Differences between treatment conditions 1–4 and baseline condition</i>				
Private higher, report by conservative think tank	5.0	188	-3.6	194
Private higher, report by liberal think tank	0.3	194	1.2	198
Private not higher, report by conservative think tank	-27.3*	209	-24.6*	184
Private not higher, report by liberal think tank	-24.4*	185	-25.2*	212

Note: See note to Table 6.2. Grades that parents gave public schools in their communities were identified on a prior survey question.

* Significant at $p < 0.10$, two-tailed test. Post-stratification weights employed.

† Percentage of people who believe that students in private schools score higher than similar students in public schools.

more-educated parents to be more resistant to new information. In this experiment, however, no such evidence emerges. The baseline answers of people with “some college” or less and those with at least an associate’s degree are virtually identical. Both groups, meanwhile, reveal considerable evidence of updating when told about research findings showing that public school students perform just as well as private school students on standardized tests. Interestingly, though, well-educated individuals also appear receptive to new research findings that private school students outperform public school students—at least when such research comes from a conservative research organization. Indeed, the recorded responses of higher-educated people in the first treatment conditions are fully 12 percentage points higher than those in the baseline condition.

As a final cut at the data, Table 6.7 disaggregates the data according to respondents’ own assessments about the quality of public schools in their districts. As one would expect, large differences across the baseline conditions are observed. Almost 80 percent of respondents who gave the public schools in their community a grade of C or below claimed that private school students outperform public school students, as compared to just 66 percent of respondents who gave the public schools in their community a grade of A

or B. Interestingly, though, the impacts of the treatment conditions appear virtually identical for the two groups. Research findings that private school students score higher on standardized tests did not influence the thinking of either group. By contrast, research findings that public school students score just as high as private school students lead approximately 25 percent of both groups to adopt a different position than what was observed in the baseline condition. Whether research confirms or challenges people's general views about an issue, as long as these views are not tied to distinct ideological commitments or personal choices, proves immaterial. The direction and magnitude of opinion changes appear relatively constant.

SOME CONCLUDING THOUGHTS

The findings presented in this chapter appear consistent with most, though not all, of our expectations about the variable impacts of academic research on public opinion. Most dramatically, the influence of academic research on school sector effects appears asymmetric. Findings that confirm the widely held view that private school students outperform public school students do not appear to influence the thinking of an especially large portion of the American public; findings that challenge this view, in contrast, persuade a significant portion of the public to adopt an altogether different view. Indeed, the mere mention of a single academic report finding that public school students score just as high as private school students is enough to convince over one-quarter of the American public to express a different view on the matter.

The magnitudes of the treatment effects, meanwhile, varied dramatically for different populations. Consistent with our expectations about the alignment of a study's findings and citizens' ideological orientations and private choices, the effects of our treatment interventions appeared especially large for liberals, voucher opponents, and public school parents. Evidence of trusted signals, meanwhile, appears more sporadic. Though in some comparisons the magnitudes of the treatment effects appear slightly larger when the ideological orientation of the respondent and research organization align, the differences are not especially large. For the most part, in fact, whether the research organization was liberal or conservative did not matter nearly as much as the particular findings of the study.

The results from this simple experiment have clear implications for those scholars who conduct academic research on school sector effects. If your sole objective is to make the biggest possible splash, you should issue an academic report finding that public school students score just as high as pri-

vate school students, and then you should distribute the findings to liberals, voucher opponents, and public school parents. By contrast, a surefire way to underwhelm the public is to issue a study—as I myself have done—that finds that private school students outperform public school students, and then to distribute the findings to almost any segment of the American public, with the possible exception of conservatives, private school parents, and the more-educated.

Obviously, one simple experiment cannot possibly identify all of the various ways in which academic research impacts public opinion on education. One wonders, for instance, whether the findings would substantially differ had the subject involved the performance of children in smaller and larger classes, rather than the more politically charged issue of private and public education. It also is quite possible that the particular venue in which citizens learn about academic research—whether on CNN or Fox News, for instance—may either enhance or mute the influence of the particular findings. It further remains unclear how consecutive studies that either complement one another or that challenge one another may influence the content of public opinion. Finally, nothing in the experiment considered here identifies the strength of people's convictions, measured either by the intensity of their views at any given point in time or the stability of their views over time. Plainly, this issue is ripe for continued study.

One thing, though, now is clear. For at least some segments of the public, some studies can shape popular views about the state of public education in America. Indeed, the relatively mild treatment effects examined here probably underestimate the potential influence of academic research. It is certainly true that citizens generally pay little attention to prominent academic debates, they lack the basic skills required to evaluate the quality of any particular study, and their views about education can be laced with ideological and personal biases. Nonetheless, scholarship can penetrate the public conscience—and for at least some citizens, the consequences can be dramatic.

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