

---

# SCHOOL CHOICE SIGNALS

Research Review and Survey Experiments

---

DICK M. **CARPENTER** II, PH.D.

January 2014

**THE FRIEDMAN FOUNDATION**

FOR EDUCATIONAL CHOICE

**edchoice.org**



## **About the Friedman Foundation for Educational Choice**

The Friedman Foundation for Educational Choice is a 501(c)(3) nonprofit and nonpartisan organization, solely dedicated to advancing Milton and Rose Friedman's vision of school choice for all children. First established as the Milton and Rose D. Friedman Foundation in 1996, the Foundation continues to promote school choice as the most effective and equitable way to improve the quality of K-12 education in America. The Foundation is dedicated to research, education, and outreach on the vital issues and implications related to choice in K-12 education.

---

# **SCHOOL CHOICE SIGNALS**

Research Review and Survey Experiments

---

DICK M. **CARPENTER II**, PH.D.

January 2014

# Table of Contents

|   |    |
|---|----|
| Executive Summary .....   | 1  |
| Introduction .....  | 3  |
| Literature Review .....   | 4  |
| Support for Different Forms of Choice .....   | 5  |
| Public Choice .....   | 5  |
| Tax Credits .....   | 6  |
| Education Saving Accounts .....   | 7  |
| Vouchers .....  | 7  |
| Results from Survey Experiments .....   | 12 |
| Salience of Reasons for Choice .....  | 14 |
| The Comparative Efficacy of Choice among Different Forms<br>of Education Reform .....   | 15 |
| The Survey Experiment .....   | 16 |
| Questions and Methods .....   | 16 |
| Sample .....  | 16 |
| Design .....  | 17 |
| Variables/Questions .....   | 18 |
| Rating the Nation’s Public Schools .....  | 18 |
| Reform Policy Options .....   | 18 |
| Experiment Module 1 .....   | 18 |
| Experiment Module 2 .....   | 18 |
| Demographics .....  | 19 |
| Analysis .....  | 19 |
| Question 1 .....  | 19 |
| Question 2 .....  | 20 |
| Question 3 .....  | 20 |
| Question 4 .....  | 20 |
| Results .....   | 20 |
| Question 1: Is there a significant difference in support for<br>choice based on reasons for school choice? .....                                | 20 |
| Question 2: Is there a significant difference in levels of<br>agreement with reasons for school choice? .....                                   | 22 |
| Question 3: Which type of choice enjoys the strongest support? .....  | 22 |
| Question 4: How does a policy of school choice compare to other<br>reform initiatives in their perceived efficacy for school improvement? ..... | 23 |
| Discussion .....  | 23 |
| Notes .....   | 27 |
| About the Author .....  | 31 |

# List of Figures

- Figure 1:** Percentage of Respondents in Favor of Charter Schools, *Education Next* Polls.....5
- Figure 2:** Percentage of Respondents in Favor of Charter Schools, PDK/Gallup Polls .....6
- Figure 3:** Percentage of Respondents in Favor of Vouchers, PDK/Gallup Polls, 1970 to 1991.....8
- Figure 4:** PDK/Gallup Voucher Support for “Do you favor or oppose allowing students and parents to choose a private school to attend at public expense?” .....8
- Figure 5:** PDK/Gallup Voucher Support for “A proposal has been made which would allow parents to send their school-age children to any public, private, or church-related school they choose. For those parents choosing nonpublic schools, the government would pay all or part of the tuition. Would you favor or oppose this proposal in your state?” .....10
- Figure 6:** Survey Experiment Results for Tax Credits for Public and Private or Only Private Schools.....13
- Figure 7:** Support for Different Types of School Choice .....22
- Figure 8:** Perceptions of School Reform.....24

# List of Tables

- Table 1:** Sample Descriptive Statistics .....16
- Table 2:** Covariates and Coding/Scales of Measurement .....19
- Table 3:** Descriptive Statistics for Types of Choice Before and After Reasons Prompts .....21
- Table 4:** Regression Coefficients for Reasons for Choice Prompts (Statistically Significant Relationships in Bold) .....21
- Table 5:** Descriptive Statistics for Reasons for School Choice by Group.....22
- Table 6:** Pairwise Comparisons of Support for Different Types of Choice (Statistically Significant Differences in Bold) .....23
- Table 7:** Pairwise Comparisons of Perceived Efficacy of Different Types of School Reform (Statistically Significant Relationships in Bold).....24

## Executive Summary

For the past several decades, a perennial topic on surveys about education has been school choice. Interest in public opinion about choice is more than just “nice to know.” The results are often used to support or oppose choice in general or specific choice initiatives under consideration or adopted by state legislatures and even school boards. Until recently, however, surveys about school choice have been limited in their scope and not particularly sophisticated, reducing their utility. In particular, few have used experimental designs, most are analyzed with simple descriptive statistics, and important topics are understudied. In response, this report uses a survey experiment to examine four research questions:

1. Is there a significant difference in support for choice based on reasons for school choice?
2. Is there a significant difference in levels of agreement with reasons for school choice?
3. Which type of choice enjoys the strongest support?
4. How does a policy of school choice compare to other reform initiatives in their perceived efficacy for school improvement?

Data were collected from a national sample of 1,000 respondents as part of the post-election wave of the Cooperative Congressional Election Study (CCES). The survey experiment design took the following form:

- All respondents: Rating the nation’s public schools (one question).
- All respondents: Seven reform policy options, including choice (options were randomly ordered). This facilitated an examination of support for choice as a reform tool compared to other contemporary reform options (research question four).
- Experiment module 1 (split half): Respondents were randomly placed into one of two groups—one that answered a module of questions about support for different school choice policies (i.e., vouchers,

education savings accounts, tax credits), before seeing a prompt about a reason for choice and a second that received this module of questions after the prompt. This facilitated an examination of differences in support for choice based on the prompt (research question one). Thus, half of the respondents saw questions about school options here.

- “Diversion/interruption” module 1: All respondents received two non-choice questions to interrupt the flow of choice questions.
- Experiment module 2: Respondents were randomly assigned to receive one of three prompts relative to three reasons for school choice. This facilitated an examination of “issue salience” to answer the first and second research questions. The prompt was embedded within two “diversion” questions to mask module intent.
- “Diversion/interruption” module 2: All respondents received two non-choice questions to interrupt the flow of choice questions.
- Experiment module 1 (split half): Those respondents who did not see this module earlier (i.e., half of the sample) received it here.
- Demographics: The CCES gathers a panel of demographics used to control for differences based on personal characteristics.

Analyses used multiple regression and repeated measure ACOVA. Results indicated when presented with six different school choice options, respondents most favored tax credits and least favored low-income vouchers, with only trivial differences in support among the remaining types of choice. When asked to rate the efficacy of choice among other types of reform, results indicated school choice through vouchers was not seen as the most efficacious way to reform education in the U.S. (that designation belonged to smaller class sizes), but it was also not seen as the least (longer school days was so identified). Across three different reasons—freedom, competition, and equality—freedom was significantly more salient among participants. However, freedom’s

salience generally did not translate to a difference in support for various forms of choice. In fact, in only a few instances were there significant differences in support for choice based on any of the three reasons.

By way of implications, to the extent policymakers are interested in adopting new school choice legislation, tax credit programs of any kind may represent an option that finds broader support in the general population and in courts of law. For those interested in creating new voucher programs, results showing support for universal vouchers versus low-income vouchers may indicate a reason to rethink past strategies of policy incrementalism. But enthusiasm should be tempered by the finding that respondents rated three structural status quo reform options—smaller class sizes, increased technology, and accountability—ahead of school choice as a way to improve schools. The fact that respondents preferred structural status-quo ideas after rating public schools in the U.S. somewhere between “poor” and “fair” means choice supporters still have much work to do to overcome an ideology favorable to the types of schools the vast majority of Americans attend and to which they send their children.

## Introduction

For the past several decades, a perennial topic on surveys about education has been school choice. Pollsters began asking about choice as far back as the early 1970s, and as the issue gained momentum in the 1980s and 1990s, so too did interest in the public’s opinion about it.<sup>1</sup> As of this writing, several research firms or survey companies regularly gather national public opinion data about school choice, and any number of choice surveys are implemented on an ad-hoc basis by researchers, think tanks, political campaigns, and the like.

This interest is more than just “nice to know,” according to researcher Terry Moe. The results are often used to support or oppose choice in general or specific choice initiatives under consideration or adopted by state legislatures and, more recently, even school boards. As Moe described:

“...[P]olling numbers matter—for the numbers tell elected officials what decisions are likely to meet with public approval, and thus what positions they can take to enhance their own popularity and re-election prospects. The more Americans support vouchers [a specific form of school choice], the more inclined policymakers will be to move in that direction.”<sup>2</sup>

Although Moe was writing specifically about school vouchers, the same sentiment extends to other forms of choice, including charter schools, tax-credit scholarships, individual tax credits/deductions, and education savings accounts.

That is somewhat of a simplification, of course, because school choice is only one of a range of school reform options available to policymakers. Even if the general public appears favorable toward school choice, they may support some other type of education reform even more, making that option more attractive to policymakers. Moreover, as Moe and others have noted, public opinion about choice, as with any issue, is decidedly more nuanced than the simple percentage in favor.<sup>3</sup> Opinions about

choice vary by respondents’ personal characteristics, professions, community affiliations, belief systems, and views on other policy issues, among others. Even further, opinions about school choice may vary by the form of or reason for choice. Some poll results, for example, appear to indicate charter schools, a form of public school choice, receive comparably greater support than vouchers.<sup>4</sup> And approval of vouchers may depend on the scope of the relevant programs: Are the vouchers used only by families of limited means, or are they available to everyone? Can the vouchers be used in religious private schools or only in non-sectarian institutions?

Although it is generally understood that such factors can influence opinion about school choice, too few surveys consider such nuance in their design or questions.<sup>5</sup> More common are surveys with a few questions about support for certain types of choice options analyzed with simple descriptive statistics. The few that use a more sophisticated design typically assign participants into groups randomly, where each group sees variations of the same question. The differences in question wording then facilitate a comparison in responses based on the question variation. Such survey experiments have been particularly useful in comparing different features of voucher programs. Similarly, a few others have compared support for choice before and after exposure to further information about it.<sup>6</sup> This is premised on the idea that many people may have low levels of information about choice and when presented with further details their opinions may change, thus making the “after exposure” opinion more reliable.

As revealing as such results are, however, there remain a number of different topics and approaches still not fully explored or understood. This research examines three of them: comparative support for different forms of school choice, the salience of reasons for school choice, and the comparative perceived efficacy of different forms of education reform, choice included.

The value of the first topic—comparative support for different forms of school choice—comes in the ability to determine if one type of choice model enjoys greater



support than another. In most surveys—even those that ask questions about different forms of choice—comparative support is infrequently considered.

The second topic grows out of a recent historical analysis of private school choice illustrating a shift over time in the philosophical/theoretical underpinnings of or reasons for choice.<sup>7</sup> In the contemporary iteration (school choice actually dates back to the country's founding), school choice was often seen early on (the 1960s and 1970s) as an issue of freedom, but by the 1980s and 1990s, underpinnings of or reasons for choice began to take on the voice of markets and economic efficiency. As policymakers consider new choice programs, understanding the “salience”<sup>8</sup> of different philosophical/theoretical underpinnings in the public consciousness could contribute useful information to crafting program options. According to Laitsch, that would be a particularly useful contribution as there is still not a clear understanding of the salience of arguments used to promote or oppose choice plans.<sup>9</sup>

The third topic—the comparative perceived efficacy of different forms of education reform—puts support for choice in a greater context. Often, survey questions about choice stand alone; that is, support for school choice is not examined within a context of other education reform vehicles. Moreover, prior studies generally have asked about support for choice but not necessarily public perceptions about the potential for choice to improve education. The research presented in this report takes a different approach by asking about the efficacy of choice as a reform model and comparing responses to those concerning different reform options. Of this report's three foci, the comparative efficacy of choice among other types of reform is easily the least developed, and of studies that have considered this question in any way, none uses a national sample; only one includes a fulsome list of reform efforts in addition to choice, and none does so in an experimental design.

The context for these analyses is provided in the literature review that follows. The review includes national poll results on charter schools, tax credits, education savings accounts, and vouchers, plus

relevant survey research related to the aforementioned three topics. The methods section that follows describes the study's sample, design, variables, and analysis (the report appendix at [edchoice.org/SchoolChoiceSignals](http://edchoice.org/SchoolChoiceSignals) includes the full survey). The results section then presents the findings structured around the study's four research questions:

1. Is there a significant difference in support for choice based on reasons for school choice?
2. Is there a significant difference in levels of agreement with reasons for school choice?
3. Which type of choice enjoys the strongest support?
4. How does a policy of school choice compare to other reform initiatives in their perceived efficacy for school improvement?

The final section—the discussion—interprets the results, compares the findings to prior research, and draws conclusions.

## Literature Review

School choice comes in several different forms, most of which have been the focus of public opinion surveys at one time or another since the 1970s. The most prevalent forms of choice include charter schools, vouchers, tax-credit scholarships, and individual tax credits/deductions. Others include open enrollment, magnet schools, and education savings accounts. Charter schools, open enrollment, and magnet schools are all types of public school choice, where families choose a public school for their child to attend other than their assigned neighborhood school. Vouchers, tax-credit programs of various types, and education savings accounts are forms of choice that enable parents to select non-public schools—including religious institutions—in addition to public ones. Of the prevalent forms of choice, 42 states and the District of Columbia allow for the creation of charter schools,<sup>10</sup> 22 voucher programs operate in 13 states and D.C., 17 tax-credit scholarship programs operate in 13 states,

and eight individual tax credit/deduction programs exist in seven states.<sup>11</sup>

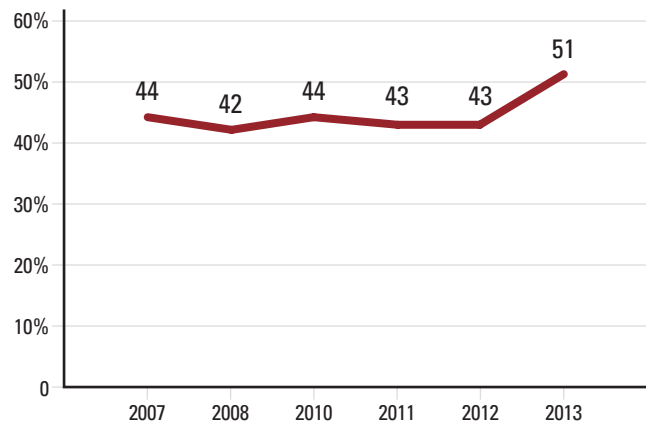
## Support for Different Forms of Choice

The literature generated by choice proponents and opponents is considerable, as are efforts in legislatures and courts to create or deny the adoption of new choice programs. Consequently, interest in public opinion about school choice has been acute among politicians, academics, and pundits. Much of the prior survey work exploring support for different forms of choice has focused on public choice—particularly charter schools—tax-credit scholarship programs, education savings accounts, and vouchers. In general, opinion polling about choice has used two types of samples—the first drawn from a single state and the second using respondents nationwide. Because the results of this study used a national sample, this literature review will focus only on prior polls that likewise used national samples. However, a comprehensive literature review of survey studies that used both state and national samples is available on the Friedman Foundation for Educational Choice’s website, [edchoice.org/Research](http://edchoice.org/Research).

### Public Choice

In general, public choice has been viewed favorably in numerous school choice polls.<sup>12</sup> Most often, the focus of questions about public choice is on charter schools, which are public schools created and operated by autonomous boards without some of the regulations governing traditional public schools. Since the late 2000s, support for the formation of charter schools has been measured by the journal *Education Next*.<sup>13</sup> As Figure 1 demonstrates, across years support tends to hover around 43 percent, except for an increase in support in 2013. It is important to note, however, that the percentage in favor is usually twice the percentage that opposes. The remainder is composed of people who have no opinion. Thus, the plurality of respondents favors the continued creation of charter schools.

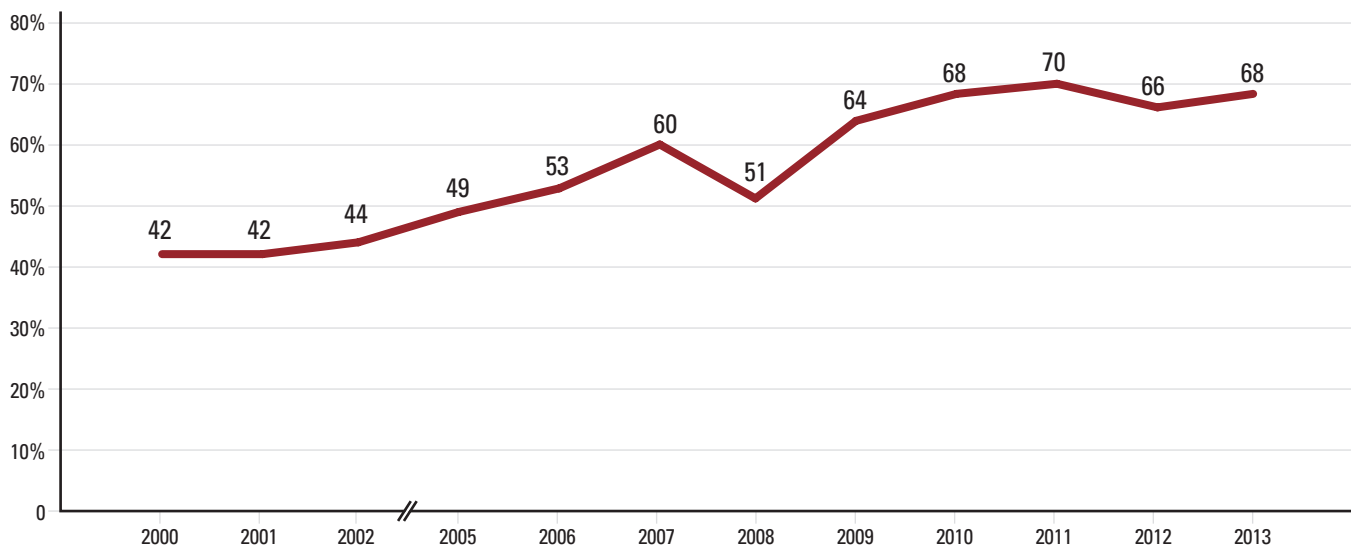
**FIGURE 1** Percentage of Respondents in Favor of Charter Schools, *Education Next* Polls



Sources: Data from “*Education Next*-PEPG Survey Complete Polling Results (all years),” *Education Next* (n.d.), [http://educationnext.org/files/EN-PEPG\\_Complete\\_Polling\\_Results.pdf](http://educationnext.org/files/EN-PEPG_Complete_Polling_Results.pdf); “*Education Next*-PEPG Survey – 2012,” *Education Next* (n.d.), [http://educationnext.org/files/EN\\_PEPG\\_Survey\\_2012\\_Tables1.pdf](http://educationnext.org/files/EN_PEPG_Survey_2012_Tables1.pdf); “*Education Next*—Program on Education Policy and Governance—Survey 2013,” *Education Next* (n.d.), <http://educationnext.org/files/2013ednextpoll.pdf>

A second source of survey data on charter schools is the annual poll administered by Gallup and Phi Delta Kappa (PDK), which is a professional association for educators. Since 1969, Gallup and PDK have measured annually public opinion about different topics relative to education. Questions about charter schools first appeared in 2000 and have been present most years ever since.<sup>14</sup> As Figure 2 demonstrates, support for charter schools was between 40 percent and 50 percent the first several years the question appeared, but, since 2008, the percentage in favor of charters has grown significantly.

A third source comes from a poll conducted by the Friedman Foundation that included a nationwide sample and an oversampling of mothers of school-age children (“school moms”).<sup>15</sup> The design first asked about support for charters with no definition of a charter school. Respondents then were given a definition and asked again about support for charters. Results indicated 45 percent of school moms favored charters initially and, when given a definition, support increased to 63 percent. In the general sample, results were similar: 45 percent in support initially and 60 percent after definition.

**FIGURE 2** Percentage of Respondents in Favor of Charter Schools, PDK/Gallup Polls

Sources: Data from Lowell C. Rose and Alec M. Gallup, "The 32nd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 82, no. 1 (Sept. 2000), pp. 41-48, 53-58, <http://www.jstor.org/stable/20439810>; Rose and A. M. Gallup, "The 33rd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 83, no. 1 (Sept. 2001), pp. 41-48, 53-58, <http://www.jstor.org/stable/20440058>; Rose and A. M. Gallup, "The 34th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 84, no. 1 (Sept. 2002), pp. 41-46, 51-56, <http://www.jstor.org/stable/20440272>; Rose and A. M. Gallup, "The 37th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 87, no. 1 (Sept. 2005), pp. 41-57, <http://www.jstor.org/stable/20441926>; Rose and A. M. Gallup, "The 38th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 88, no. 1 (Sept. 2006), pp. 41-56, <http://www.jstor.org/stable/20442174>; Rose and A. M. Gallup, "The 39th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 89, no. 1 (Sept. 2007), pp. 33-48, <http://www.jstor.org/stable/20442420>; William J. Bushaw and Alec M. Gallup, "Americans Speak out — Are Educators and Policy Makers Listening? The 40th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 90, no. 1 (Sept. 2008), pp. 9-20, <http://www.jstor.org/stable/20493542>; Bushaw and John A. McNee, "The 41st Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 91, no. 1 (Sept. 2009), pp. 8-23, <http://www.jstor.org/stable/40344872>; Bushaw and Shane J. Lopez, "A Time for Change: The 42nd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 92, no. 1 (Sept. 2010), pp. 9-26, <http://www.jstor.org/stable/25753616>; Bushaw and Shane J. Lopez, "Betting on Teachers: The 43rd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 93, no. 1 (Sept. 2011), pp. 8-26, <http://www.jstor.org/stable/23049011>; Bushaw and Lopez, "Public Education in the United States: A Nation Divided: The 44th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 94, no. 1 (Sept. 2012), pp. 9-25; Bushaw and Lopez, "Which Way Do We Go? The 45th Annual PDK/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 95, no. 1 (Sept. 2013), pp. 9-25.

A 1999 survey by Public Agenda is a fourth source of public perceptions of charter schools.<sup>16</sup> Unlike the PDK/Gallup polls in the early 2000s, where support for charters was comparably low, the Public Agenda sample expressed strong support for charters—68 percent, numbers that were not evident in other polls for about a decade after.

### Tax Credits

Choice-related tax-credit programs tend to be of two types. The first is the tax-credit scholarship program. Those programs enable the creation of nonprofit organizations that provide scholarships to students to attend the school of their choice—public or private. Individuals or companies that make donations to such scholarship organizations may take a credit

against their tax liabilities. The second is a tax credit/deduction available to individuals who incur eligible education-related expenses, such as private school tuition, books, materials, and the like.

*Education Next* has asked about both types of tax-credit programs. In 2007 and 2011, questions were asked about tuition tax credits, and results indicated 53 percent and 55 percent, respectively, of respondents supported such a program.<sup>17</sup> In 2011 and 2012, *Education Next* included questions about tax-credit scholarships, particularly for low-income families. Results showed 50 percent and 53 percent, respectively, favored the idea of those programs. The PDK/Gallup poll also asked about tax credits, although only in 1998.<sup>18</sup> That question focused on tuition tax credits, and 56 percent said they favored such a program. Finally, the Friedman Foundation's 2013 survey with an oversampling of school moms

found 69 percent of school moms and 66 percent of the general public supported tax-credit scholarships.<sup>19</sup>

## Education Saving Accounts

Of the school choice programs available to parents, education savings accounts (ESAs) are the newest option. ESAs allow parents to remove their children from public schools and receive a deposit of public funds into government-authorized savings accounts with eligible uses, including private school tuition and fees, online learning programs, private tutoring, community college costs, and other higher education expenses. Currently, Arizona offers such a program to its residents. Although relatively new and offered in only one state, public opinion about ESAs has been measured by the Friedman Foundation.<sup>20</sup> Nationally, 65 percent of an oversampling of school moms supported ESAs, which was slightly greater than the 64 percent of the general public that expressed support.<sup>21</sup>

## Vouchers

Arguably the best-known and most-debated form of school choice is vouchers. They also have generated the most attention in the form of public opinion surveys. Responses to questions about vouchers have varied, sometimes significantly. Likely one of the most identifiable sources of that variation is question wording.<sup>22</sup> Other times variation stems from the features of a voucher program described in a question. As Williamson and Teske discussed, opinions can vary depending on whether program descriptions include religious schools, whether schools can select students, the amount of the voucher, and other such issues.<sup>23</sup> Thus, the results to follow are presented with the actual question wording to provide context.

The Gallup organization was the first to ask questions about vouchers and has done so consistently since the 1970s. Voucher questions have appeared in their Gallup poll and in *Phi Delta Kappan*. In the Gallup poll, the voucher question differed each time it appeared, although the responses were similar in each iteration:

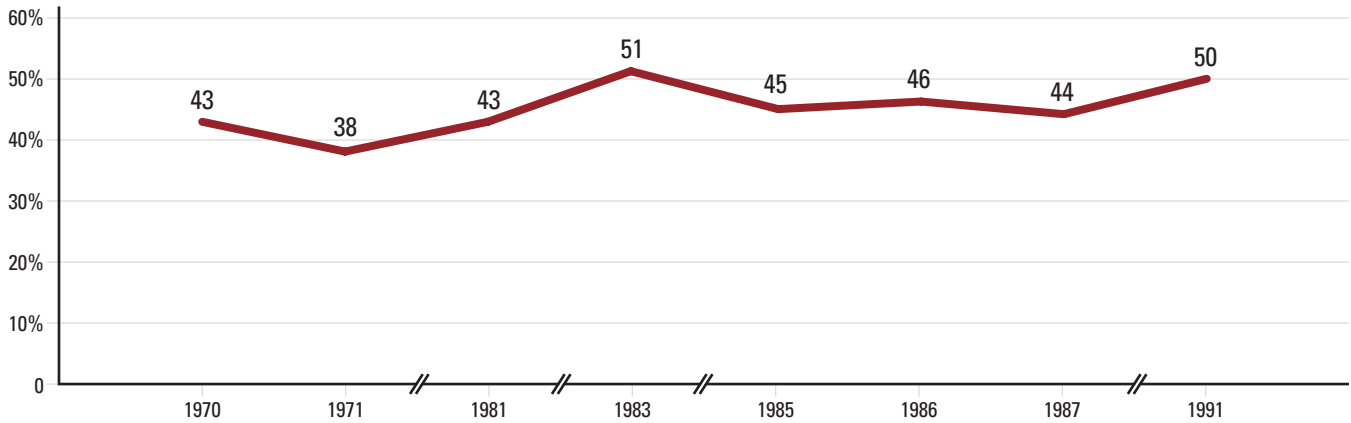
- 1983: “In some nations, the government allots a certain amount of money for each child for his education. The parents can then send the child to any public, parochial, or private school they choose. This is called the ‘voucher system.’ Would you like to see such an idea adopted in this country?” Favor: 51 percent.<sup>24</sup>
- 1991: “Would you favor or oppose a program which would allow parents to send their children to the public, parochial, or private school of their choice and use state and local tax dollars to pay for all or part of it?” Favor: 50 percent.<sup>25</sup>
- 1996: “A proposal has been made that would allow parents to send their school-age children to any public, private, or church-related school they choose. For those parents choosing nonpublic schools, the government would pay all or part of the tuition. Would you favor or oppose this proposal in your state?” Favor: 54 percent.<sup>26</sup>

In 1991, Gallup followed up by asking, “And if this step were taken, how much—if at all—would it improve the quality of education children receive in this country?” In response, 39 percent said it would improve education a “great deal,” and 34 percent said it would improve education “somewhat.”<sup>27</sup>

The more consistent measure of opinion about vouchers gathered by Gallup has been in the *Phi Delta Kappan*. A voucher question first appeared in 1970, and some form of voucher question has been used frequently since that time. From 1970 to 1991, PDK/Gallup asked about vouchers eight times using the same question, which is included in Figure 3.<sup>28</sup> As results in Figure 3 indicate, support for vouchers tended to be between 40 percent and 50 percent with that question.

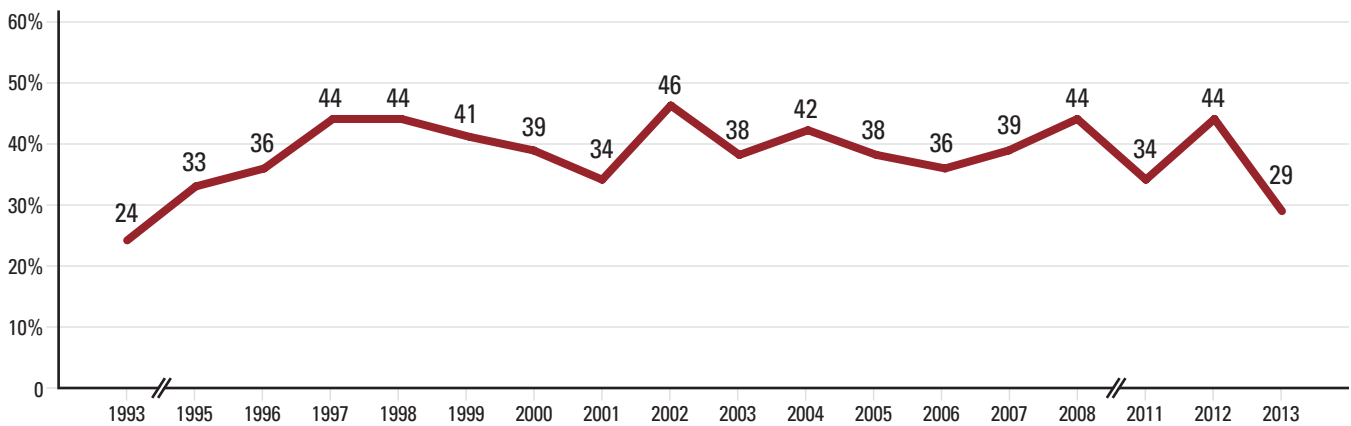
Beginning in 1993, a series of different voucher questions appeared in the PDK/Gallup poll.<sup>29</sup> One that saw frequent use asked, “Do you favor or oppose allowing students and parents to choose a private school to attend at public expense?” As results in Figure 4 illustrate, favorability ranged from 24 percent to 46 percent across years.

**FIGURE 3** Percentage of Respondents in Favor of Vouchers, PDK/Gallup Polls, 1970 to 1991



Question: "In some nations, the government allots a certain amount of money for each child for his education. The parents can then send the child to any public, parochial, or private school they choose. This is called the 'voucher system.' Would you like to see such an idea adopted in this country?" This question was used each year, with slight and trivial variations, such as replacing "his education" with "his or her." Sources: Data from Stanley M. Elam, *How America Views Its Schools: The PDK/Gallup Polls, 1969-1994* (Bloomington, IN: Phi Delta Kappa, 1995).

**FIGURE 4** PDK/Gallup Voucher Support for "Do you favor or oppose allowing students and parents to choose a private school to attend at public expense?"



Sources: Data from Stanley M. Elam, Lowell C. Rose, and Alec M. Gallup, "The 25th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 75, no. 2 (Oct. 1993), pp. 137-152, <http://www.jstor.org/stable/20405049>; Elam and Rose, "The 27th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 77, no. 1 (Sept. 1995), pp. 41-56, <http://www.jstor.org/stable/20405485>; Rose, A. M. Gallup, and Elam, "The 29th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 79, no. 1 (Sept. 1997), pp. 41-56, <http://www.jstor.org/stable/20405952>; Rose and A. M. Gallup, "The 30th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 80, no. 1 (Sept. 1998), pp. 41-56, <http://www.jstor.org/stable/20439361>; Rose and A. M. Gallup, "The 31st Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 81, no. 1 (Sept. 1999), pp. 41-56, <http://www.jstor.org/stable/20439584>; Rose and A. M. Gallup, "The 32nd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 82, no. 1 (Sept. 2000), pp. 41-48, 53-58, <http://www.jstor.org/stable/20440503>; Rose and A. M. Gallup, "The 33rd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 83, no. 1 (Sept. 2001), pp. 41-48, 53-58, <http://www.jstor.org/stable/20440058>; Rose and A. M. Gallup, "The 34th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 84, no. 1 (Sept. 2002), pp. 41-46, 51-56, <http://www.jstor.org/stable/20440272>; Phi Delta Kappa, "Policy Implications of the 35th Annual Phi Delta Kappa/Gallup Poll," *Phi Delta Kappan* 85, no. 1 (Sept. 2003), pp. 53-56, <http://www.jstor.org/stable/20440503>; Rose and A. M. Gallup, "The 36th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 86, no. 1 (Sept. 2004), pp. 41-52, <http://www.jstor.org/stable/20441698>; Rose and A. M. Gallup, "The 37th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 87, no. 1 (Sept. 2005), pp. 41-57, <http://www.jstor.org/stable/20441926>; Rose and A. M. Gallup, "The 38th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 88, no. 1 (Sept. 2006), pp. 41-56, <http://www.jstor.org/stable/20442174>; Rose and A. M. Gallup, "The 39th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 89, no. 1 (Sept. 2007), pp. 33-48, <http://www.jstor.org/stable/2044240>; William J. Bushaw and Alec M. Gallup, "Americans Speak out — Are Educators and Policy Makers Listening? The 40th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 90, no. 1 (Sept. 2008), pp. 9-20, <http://www.jstor.org/stable/20493542>; Bushaw and Shane J. Lopez, "Betting on Teachers: The 43rd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 93, no. 1 (Sept. 2011), pp. 8-26, <http://www.jstor.org/stable/23049011>; Bushaw and Lopez, "Public Education in the United States: A Nation Divided: The 44th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 94, no. 1 (Sept. 2012), pp. 9-25; Bushaw and Lopez, "Which Way Do We Go? The 45th Annual PDK/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 95, no. 1 (Sept. 2013), pp. 9-25.



A different question covered some of the same years, asking:

“A proposal has been made which would allow parents to send their school-age children to any public, private, or church-related school they choose. For those parents choosing nonpublic schools, the government would pay all or part of the tuition. Would you favor or oppose this proposal in your state?”<sup>30</sup>

Responses to this question yielded greater favorability, as shown in Figure 5.

PDK/Gallup also asked respondents for their opinions about the effects of vouchers. In the first iteration, used in 1987, the question asked, “How about the public schools in this community? Do you think the voucher system would help or hurt the local schools?” Forty-two percent thought vouchers would hurt public schools.<sup>31</sup> In subsequent years, the questions focused on students rather than schools. In 1997 and 2003, questions and responses indicated:

- “Again, just your opinion, how would the academic achievement of those public school students who had moved to the private schools be affected? Do you think their academic achievement would improve, get worse, or remain about the same after moving to private schools?”<sup>32</sup>

|                       | 1997 | 2003 |
|-----------------------|------|------|
| Improve               | 65%  | 54%  |
| Get Worse             | 4%   | 4%   |
| Remain about the Same | 28%  | 37%  |

- “How about the students who remained in the local public schools? Do you think their academic achievement would improve, get worse, or remain about the same?”<sup>33</sup>

|                       | 1997 | 2003 |
|-----------------------|------|------|
| Improve               | 17%  | 26%  |
| Get Worse             | 11%  | 12%  |
| Remain about the Same | 70%  | 59%  |

The PDK/Gallup poll has been the most frequent source of national public opinion about vouchers, but three other sources have also used a national sample. The first is the *Education Next* poll in 2007, which asked, “A proposal has been made that would use government funds to pay the tuition of low-income students who choose to attend private schools. Would you favor or oppose this proposal?” In response, 45 percent were somewhat or completely favorable. As a follow-up, the survey then asked:

“Some people say low-income students participating in these programs should be allowed to attend either religious or non-religious private schools. Other people say low-income students participating in these programs should be allowed to attend only non-religious private schools. Which comes closer to your view?”

Eighty-four percent said religious and non-religious schools should be available to students.<sup>34</sup>

In 2013, *Education Next* asked the first question again (i.e., vouchers for low-income students), yielding comparably greater support—53 percent were somewhat or completely favorable.<sup>35</sup> That year also saw a question about universal vouchers:

“A proposal has been made that would give families with children in public schools a wider choice, by allowing them to enroll their children in private schools instead, with government helping to pay the tuition. Would you favor or oppose this proposal?”

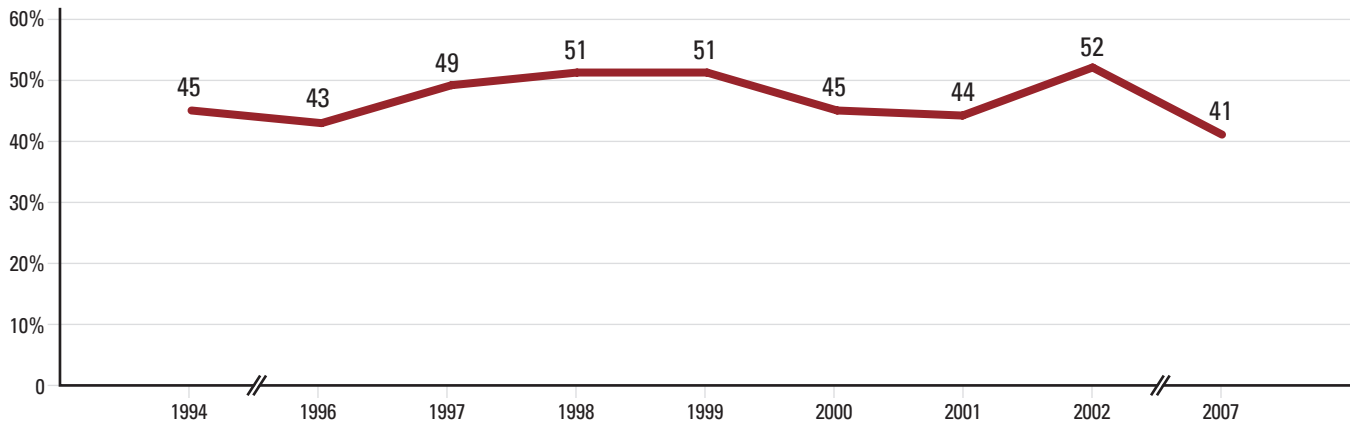
Forty-four percent were somewhat or completely favorable.

The second source is the Friedman Foundation and its two national polls with an oversampling of school moms. In the earlier of the two polls, respondents were first asked for their support of vouchers with this question:

“A school voucher system allows parents the option of sending their child to the school of their choice,

**FIGURE 5**

PDK/Gallup Voucher Support for “A proposal has been made which would allow parents to send their school-age children to any public, private, or church-related school they choose. For those parents choosing nonpublic schools, the government would pay all or part of the tuition. Would you favor or oppose this proposal in your state?”



Sources: Data from Stanley M. Elam, Lowell C. Rose, and Alec M. Gallup, “The 26th Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 76, no. 1 (Sept. 1994), pp. 41-56, <http://www.jstor.org/stable/20405256>; Elam, Rose, and A. M. Gallup, “The 28th Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 78, no. 1 (Sept. 1996), pp. 41-59, <http://www.jstor.org/stable/20405704>; Rose, A. M. Gallup, and Elam, “The 29th Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 79, no. 1 (Sept. 1997), pp. 41-56, <http://www.jstor.org/stable/20405952>; Rose and A. M. Gallup, “The 30th Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 80, no. 1 (Sept. 1998), pp. 41-56, <http://www.jstor.org/stable/20439361>; Rose and A. M. Gallup, “The 31st Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 81, no. 1 (Sept. 1999), pp. 41-56, <http://www.jstor.org/stable/20439584>; Rose and A. M. Gallup, “The 32nd Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 82, no. 1 (Sept. 2000), pp. 41-48, 53-58, <http://www.jstor.org/stable/20439810>; Rose and A. M. Gallup, “The 33rd Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 83, no. 1 (Sept. 2001), pp. 41-48, 53-58, <http://www.jstor.org/stable/20440058>; Rose and A. M. Gallup, “The 34th Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 84, no. 1 (Sept. 2002), pp. 41-46, 51-56, <http://www.jstor.org/stable/20440272>; Rose and A. M. Gallup, “The 39th Annual Phi Delta Kappa/Gallup Poll of the Public’s Attitudes toward the Public Schools,” *Phi Delta Kappan* 89, no. 1 (Sept. 2007), pp. 33-48, <http://www.jstor.org/stable/2044240>.

whether that school is public or private, including both religious and non-religious schools. If this policy were adopted, tax dollars currently allocated to a school district would be allocated to parents in the form of a ‘school voucher’ to pay partial or full tuition for their child’s school. In general, do you favor or oppose a school voucher system?”

They were then queried about whether vouchers should be available universally or be means-tested. Among the oversample of school moms, 61 percent supported vouchers, which exceeded the 56 percent of the general public. In the follow-up, 71 percent of school moms and 68 percent of the general public agreed that vouchers should be universal rather than need-based.<sup>36</sup>

In the second of the two Friedman Foundation surveys, respondents were asked the same questions but with the addition of a definition of vouchers to measure differences in support based on information (the definition used the same wording as previously presented). Among school moms, the initial question

saw 43 percent in favor, which grew to 66 percent upon further definition. Results for the general public were quite similar—43 percent in favor initially and 60 percent after definition. When asked about universal versus means-tested vouchers, 66 percent of school moms and 58 percent of the general public agreed with universal vouchers over those determined by need.<sup>37</sup>

The third source is Moe’s treatise on public opinion and school choice. Moe covered broad territory in his work—far more than can be reviewed here. Worth noting, however, is that using an enormous sample of 4,700 respondents, Moe took a unique approach at that time. He measured levels of support for vouchers with no context, meaning respondents were answering questions about vouchers with status-quo (presumably low) levels of information. He then asked participants a series of follow-up questions that addressed a full range of issues in the national debate on choice, from competition, to race, to religion, to social class. Through such questions, respondents had a chance to reflect more fully on the voucher issue. Finally, they were asked again about their support overall

for vouchers. The idea was that when presented with new considerations about vouchers respondents may change their minds. The design also provided results on opinions that were more fully informed.<sup>38</sup>

Initially, support for vouchers reached 60 percent. For some sub-groups, the number was significantly greater. For example, 77 percent of inner-city parents expressed support for vouchers. The follow-up numbers showed that when more fully informed on issues surrounding vouchers, the support across all groups grew to 68 percent (81 percent for inner-city parents). The questions Moe used included:

Initial: "According to reformers, the general idea behind a voucher plan is as follows. The parents of a school-age child would be eligible for a grant or voucher from the state, representing a certain amount of tax money. They would then have the right to send their child to a public school, just as before. Or they could use the voucher to help pay for their child's education at a private or parochial school of their choosing. Would you favor or oppose such an idea?"<sup>39</sup>

Follow-up: "Under a voucher plan, the parents of a school-age child would be eligible for a grant or voucher from the state, representing a certain amount of tax money. They would then have the right to send their child to a public school, just as before. Or they could use the voucher to help pay for their child's education at a private or parochial school of their choosing. Now that you've heard more about the idea, would you tend to support or oppose it?"<sup>40</sup>

Although Moe's questions yielded support that was greater than some but less than others, it demonstrated something novel compared to other studies by showing how support changed (i.e., grew) when respondents were exposed to various issues concerning choice.

The fourth source is Public Agenda's 1999 survey on choice.<sup>41</sup> Throughout a series of questions about vouchers, respondents appeared favorable. The first questions asked, "How much do you favor or oppose

the following idea? Parents are given a voucher or certificate by the government to pay for all or part of tuition if they decide to send their child to a private or parochial school." Fifty-seven percent favored the idea. When asked, "If you had the chance to use a school voucher to send your child to a private school, would you use it or not," 70 percent said they would.

In another block of questions, Public Agenda's survey also asked respondents to identify which statements came closest to their opinion. The first set of statements about vouchers included:

- "A good idea that promises to solve the nation's education problems": 11 percent
- "A good idea but they cannot solve the nation's education problems": 67 percent
- "A bad idea that will make the nation's education problems worse": 17 percent

In the second set, respondents were instructed to "Suppose your state government decided to start a school voucher program and you could have a say over what it looked like." Choices about the structure of the program were then captured in opposing statements. In the first set, a large majority of people supported universal vouchers:

- "All families to be eligible, regardless of income": 72 percent
- "Only low-income families to be eligible": 22 percent

In the second set, an even greater percentage supported the idea of making religious schools eligible for voucher use:

- "To allow parents to use vouchers only for non-religious schools": 14 percent
- "For parents to use the vouchers to send kids to religious schools as well": 78 percent



## Results from Survey Experiments

In a survey experiment, researchers (A) randomly assign participants into different treatments (i.e., versions of questions) and measure differences in responses or (B) take advantage of question order bias to measure differences in responses as a result of exposure to a stimulus (i.e., a prompt).<sup>42</sup> In more recent years, survey experiments have seen greater, although not overwhelming, use in polls about school choice. The most common approach is to randomly assign participants into different treatments based on question wording. Because of the random assignment, any differences in responses can then be attributed to the substance of the questions. For example, Howell, Peterson, and West measured differences in support for charter schools with these questions:

1. "Many states permit the formation of charter schools, which are publicly funded but are not managed by the local school board. These schools are expected to meet promised objectives, but are exempt from many state regulations. Do you support or oppose the formation of charter schools?"
2. "Many states permit the formation of charter schools, which are publicly funded but are not managed by the local school board. These schools are expected to meet promised objectives, but are exempt from any state regulations. President Barack Obama has expressed support for charter schools. What do you think? Do you support or oppose the formation of charter schools?"
3. "Many states permit the formation of charter schools, which are publicly funded but are not managed by the local school board. These schools are expected to meet promised objectives, but are exempt from many state regulations. A recent study presents evidence that students learn more in charter schools than in public schools. What do you think? Do you support or oppose the formation of charter schools?"

Results indicated that 39 percent of group one

supported charter schools. When the question included President Obama, support for charters was 50 percent, and when presented with evidence of students learning more in charters, support was 53 percent. For those who advocate for expansion of charter schools, such results can prove useful in knowing how to "frame" arguments in support of relevant policies.<sup>43</sup>

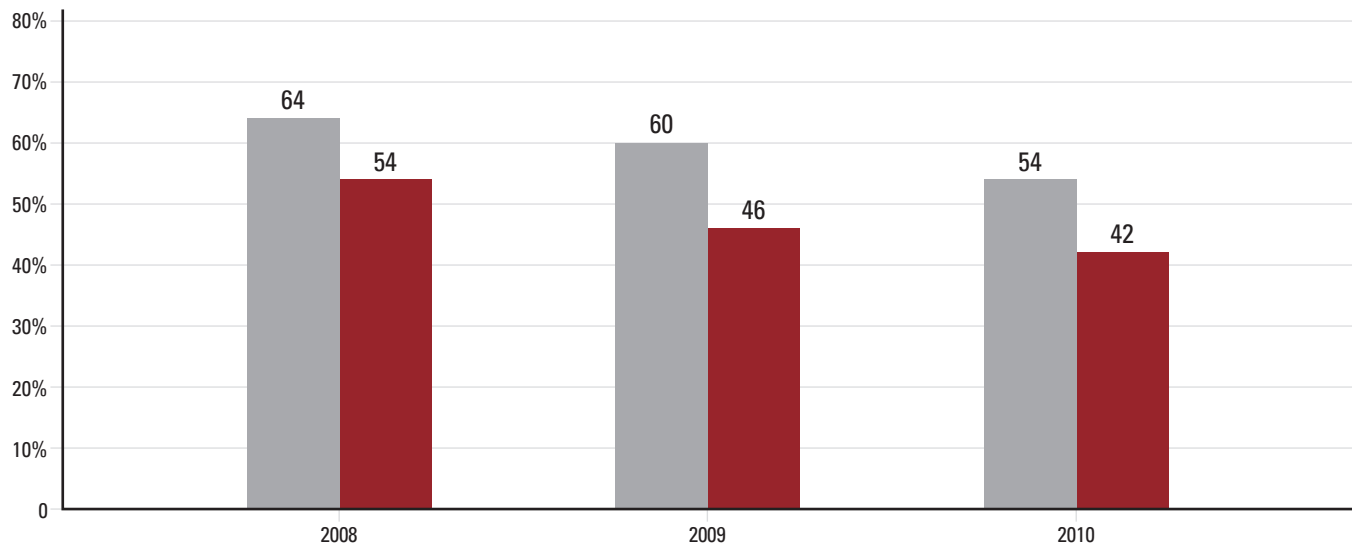
Tax credits, too, have been the subject of survey experiments. For example, Howell, Peterson, and West used a survey experiment design to measure differences in support for tax credit programs based on whether parents could use the credits to cover expenses in public and private schools or just private schools.<sup>44</sup> As Figure 6 (next page) illustrates, support was consistently greater when both types of schools were named in the question.

Subsequent to those experiments, Howell, West, and Peterson took a slightly different approach in an experiment that measured differences in support for a tax-credit program if it were available for all parents or just low- and moderate-income families. Results indicated support was greater when all parents were eligible for the credit.<sup>45</sup> The utility of questions like these is the ability to measure how support for choice programs differs based on the structure of the programs.

The same utility applies for survey experiments about vouchers. Howell, West, and Peterson used survey experiments to measure public support for different structures of voucher programs. In the first iteration, the authors used a four-group design:

1. "A proposal has been made that would use government funds to help pay the tuition of low-income students whose families would like them to attend private schools. Would you favor or oppose this proposal?" Completely or somewhat support: 40 percent.
2. "A proposal has been made that would use government funds to help pay the tuition of low-income students whose families would like them to attend private schools. Some people say such a

**FIGURE 6** Survey Experiment Results for Tax Credits for Public and Private or Only Private Schools



Sources: Data from William G. Howell, Martin R. West, and Paul E. Peterson, "The 2008 Education Next-PEPG Survey of Public Opinion," *Education Next* 8, no. 4 (Fall 2008), pp. 12-26, <http://educationnext.org/the-2008-education-nextpepg-survey-of-public-opinion/>; Howell, Peterson, and West, "The Persuadable Public," *Education Next* 9, no. 4 (Fall 2009), pp. 20-29, <http://educationnext.org/persuadable-public/>; Howell, Peterson, and West, "Meeting of the Minds," *Education Next* 11, no. 1 (Winter 2011), pp. 20-31, <http://educationnext.org/meeting-of-the-minds/>.

Public and Private Schools Only Private Schools

program would improve the educational opportunities available to the poor. Would you favor or oppose this proposal?" Completely or somewhat support: 43 percent.

3. "A proposal has been made that would use government funds to help pay the tuition of all students whose families would like them to attend private schools. Would you favor or oppose this proposal?" Completely or somewhat support: 37 percent.

4. "A proposal has been made that would use government funds to help pay the tuition of all students whose families would like them to attend private schools. Some people say that such a program would introduce much needed competition to the public school system. Would you favor or oppose this proposal?" Completely or somewhat support: 43 percent.

As indicated by the percentages at the end of each question, a program of universal vouchers saw the

least support, and programs framed as helping low-income families or creating markets in education saw the greatest support.<sup>46</sup>

Howell, Peterson, and West's second iteration also used a four-group design but with some different elements measured in the questions:

1. "A proposal has been made that would use government funds to help pay the tuition of low-income students whose families would like them to attend private schools. Would you favor or oppose this proposal?" Completely or somewhat support: 35 percent.

2. "A proposal has been made that would use government funds to help pay the tuition of low-income students whose families would like them to attend private schools. President Barack Obama has expressed opposition to such a proposal. Would you favor or oppose this proposal?" Completely or somewhat support: 24 percent.

3. “A proposal has been made that would use government funds to help pay the tuition of low-income students whose families would like them to attend private schools. A recent study presents evidence that students learn no more in private schools than in public schools. Would you favor or oppose this proposal?” Completely or somewhat support: 25 percent.

4. “A proposal has been made that would give low-income families with children in public schools a wider choice, by allowing them to enroll their children in private schools instead, with government helping to pay the tuition. Would you favor or oppose this proposal?” Completely or somewhat support: 40 percent.

As indicated by the percentages at the end of each question, framing programs as opposed by President Obama or ineffective for increasing student learning resulted in significantly smaller support. Indicating vouchers would provide “wider choice,” however, yielded greater support compared to the question without such framing.<sup>47</sup> Results from experiments with the same prompts in subsequent years yielded similar results.<sup>48</sup>

Finally, in a 2013 *Education Next* poll, Henderson and Peterson randomly assigned participants into two groups; the first was asked about vouchers for low-income students and the second saw a question about universal vouchers. Results indicated greater support for low-income vouchers (53 percent) compared to universal vouchers (44 percent).<sup>49</sup>

## Salience of Reasons for Choice

The utility of such “framing” questions is understanding what reasons for choice are salient in the public. “Reasons for choice” refers to the purposes or goals of school choice cited by proponents or opponents. For example, choice has been described as a means for reforming or destroying public schools, helping families of limited means or creating greater inequalities, expanding freedom or tearing apart the

social fabric, and a number of others.

In general, salience refers to an issue’s prominence, importance, or “weight” compared to other issues and plays an important role in how people view issues, candidates, and even consumer goods.<sup>50</sup> Greater salience relative to an issue is accompanied by increased knowledge of its possible causes and solutions, stronger opinions, and less likelihood of taking a neutral position, according to Weaver.<sup>51</sup> Indeed, Myers and Alpert described how salience has a deterministic function, whereby an issue’s salience can influence decision making and behavior.<sup>52</sup> Applied to school choice, the salience of a reason for choice (i.e., reform, expanding freedom, etc.) would influence one’s support of or opposition to choice. The more salient the issue, the stronger the opinion.

There are also policy implications for issue salience. Because policymakers (particularly elected officials) pay close attention to public opinion on issues, salience may play an influential role in crafting public policy.<sup>53</sup> For example, if using school choice was particularly salient in the public as a way to help children in families of limited means, that would provide direction in how to craft a relevant public policy that would enjoy broader support and align with the public’s policy preferences.

Existing studies on public opinion about school choice address this one of two ways. In the first, questions frame school choice in certain ways that facilitate a general comparison about reasons for choice but do not directly compare different reasons in a single question. For example, an Associated Press poll on vouchers found that 51 percent would support providing parents in low-income families vouchers to help pay for their children to attend private or religious schools.<sup>54</sup> The question asked only about vouchers for low-income families rather than asking respondents which reason they would support more—vouchers for low-income families or some other purpose. Yet, results from that question can be compared generally to questions that focus on other reasons for choice.

Such “single reason” questions often ask about

vouchers either for targeted populations or universal vouchers, but Public Agenda's 1999 survey asked two "single reason" questions focused on competition and parental rights, respectively.<sup>55</sup> The competition question asked for levels of agreement with: "Teachers and administrators working in the public schools will try harder to do a good job if they see they are losing more and more kids to private schools." Support for the statement was only 49 percent agree to 47 percent disagree. But when asked for level of agreement with this: "Parents should have the right to choose the school they want their child to attend," a decisive 79 percent agreed, compared to 20 percent disagreed.

The second way salience is measured is through direct comparisons or survey experiments that allow for direct comparisons. For example, Howell, West, and Peterson used a survey experiment to compare support for different reasons for choice. They randomly assigned respondents to one of four groups. One group was asked their opinion about vouchers for low-income families so their children could attend private schools. The second group was asked the same question but was also told that some people say such a program would create greater equality of opportunity. The third group was asked their opinion about universal vouchers. The fourth group was asked the same question but was told that some people say such a program would create more competition for public schools.

Results indicated the various groups appeared equally likely to support proposals that would use government funds to help pay the private school tuitions of either "low-income students" (43 percent) or "all students" (37 percent). Likewise, appeals to competition and equal opportunity did not seem to yield significant differences. When told that some people say that a universal program "would introduce much needed competition to the public school system," overall support for vouchers increased by just a few percentage points (43 percent). And when told that some people say that a universal program "would improve the educational opportunities available to the poor," overall support for vouchers did not change at all (43 percent).<sup>56</sup>

## The Comparative Efficacy of Choice among Different Forms of Education Reform

As demonstrated by its presence in Howell, West, and Peterson's experiment, one of the most prominent reasons for school choice among supporters is reforming public education through the introduction of market forces (i.e., competition).<sup>57</sup> Of course, choice is only one among a list of education reforms proposed to or adopted by legislative bodies. And although surveys have asked questions about support for various types of reforms (choice included), few have asked comparatively.

In addition to choice, the types of reforms addressed on opinion surveys about education include: merit/performance pay for teachers,<sup>58</sup> accountability,<sup>59</sup> teachers' unions,<sup>60</sup> technology,<sup>61</sup> standards,<sup>62</sup> class size,<sup>63</sup> and longer school days.<sup>64</sup> Yet, although choice and at least one of those appear on the same surveys, only a small handful of studies compare opinions about those types of reforms. Note, that although this literature review focuses on studies with national samples, the three studies to be discussed use state samples. No studies with national samples provided examples of the comparative efficacy of choice.

First, in his survey of policymakers, Laitsch asked about support for vouchers first in isolation. Just less than half (48 percent) supported some sort of voucher reform. However, when asked to evaluate vouchers in relation to other reform options, policymakers' support weakened, with vouchers ranking last among 11 other reform options. Policymakers also viewed the broader concept of school choice more negatively, with three of the four lowest ranked reform options on this survey related to school choice (teacher preparation and professional development, early childhood initiatives, phonics-based reading programs, and greater use of technology all rated higher as reform strategies).<sup>65</sup>

Plucker et al also took a comparative approach, but their question included only three options. They asked,

“Assume you had a child attending a public school that has been placed on academic probation by either the state or federal government. Which would you prefer: to have additional efforts made in your child’s present school to help him or her achieve, to transfer your child to another public school that is NOT on probation, or to receive state financial support to offset part or all of the tuition for a private school?”

Most respondents preferred additional assistance to the present school (61.3 percent), followed by receiving financial support for private school tuition (17.6 percent)<sup>66</sup> and transferring to another public school (15.4 percent).

Finally, under the heading “Approaches to Improving the Public School System,” Garcia, Molnar, and Merrill took a more oblique approach by asking:

“In order to improve public education in Arizona, some people think we can continue to change the existing public school system. Others believe that at some point we should start over and develop an alternative to the existing public school system. In your opinion, which approach should be the primary focus?”

Sixty-four percent said the primary focus should be on changing the existing system, while 28 percent favored starting over and developing an alternative.<sup>67</sup>

Thus, of the three foci reported in the results to follow, the comparative efficacy of choice among other types of reform is easily the least developed. None of the three aforementioned studies used a national sample,<sup>68</sup> only one included a fulsome list of reform efforts in addition to choice,<sup>69</sup> and none did so in an experimental design.

## The Survey Experiment

### Questions and Methods

This survey experiment examines four research questions:

1. Is there a significant difference in support for choice based on reasons for school choice?
2. Is there a significant difference in levels of agreement with reasons for school choice?
3. Which type of choice enjoys the strongest support?
4. How does a policy of school choice compare to other reform initiatives in their perceived efficacy for school improvement?

### Sample

The survey was administered to a national sample as part of the 2012 post-election phase of the Cooperative Congressional Election Study (CCES). CCES is a 50,000-person national stratified sample survey administered by YouGov/Polimetrix. Half of the questionnaire consists of a common core of questions asked of 30,000 people, and half of the questionnaire consists of content designed by individual participating teams and administered to a subset of 1,000 people per team.<sup>70</sup> The sample for this study was part of the latter.

Table 1 (next page) includes the descriptive statistics for the sample. Although the percentages for the nominal variables are self-evident, means for the other variables require brief explanation. Based on the ordinal scale of ideology, a mean of 3.29 corresponds to “Moderate” on the “Very Liberal” and “Very Conservative” scale. Likewise, the 3.98 on political party identification represents “Independent” on the “Strong Democrat” to “Strong Republican” scale. A 4.03 on church attendance corresponds to “A Few Times Per Year.” The mean for family income equals approximately \$50,000. The mean for interest in news/public affairs



**TABLE 1** Sample Descriptive Statistics

|                                 | Mean  | SD    |
|---------------------------------|-------|-------|
| Ideology                        | 3.29  | 1.29  |
| Political Party Identification  | 3.98  | 2.26  |
| Church Attendance               | 4.03  | 1.77  |
| Family Income                   | 5.65  | 3.06  |
| Age                             | 46.79 | 17.06 |
| Interest in News/Public Affairs | 1.79  | 0.90  |
| Education                       | 3.19  | 1.51  |
| Public School Rating            | 2.86  | 1.01  |

|                          | Percentage |
|--------------------------|------------|
| Parent of Child under 18 | 28.22      |

| Gender | Percentage |
|--------|------------|
| Male   | 48.21      |
| Female | 51.79      |

| Race            | Percentage |
|-----------------|------------|
| White           | 74.63      |
| Black           | 12.36      |
| Hispanic        | 7.32       |
| Asian           | 2.44       |
| Native American | 0.57       |
| Mixed           | 2.16       |
| Other           | 0.53       |

| Employment Status  | Percentage |
|--------------------|------------|
| Employed Full-Time | 37.93      |
| Employed Part-Time | 9.95       |
| Not Employed       | 52.12      |

|                              |       |
|------------------------------|-------|
| Homeowner                    | 60.89 |
| Union or Former Union Member | 22.71 |

represents “Some of the Time” on that scale. A 3.19 on the education scale corresponds to “Some College.” On average, respondents rated public schools in the U.S. as approximately “Fair,” with a 2.86. Finally, age was simply a continuous variable, so the mean age of respondents was almost 47 years.

## Design

The survey for this study was created by the author by using or adapting pre-existing survey questions on choice and other education-related topics, many of which came from prominent sources previously reviewed. The questions were used in survey experiments designed to measure the research questions.<sup>71</sup> Specifically, the question order, design, and topics were as follows (note that a module is a block of questions):

- **All respondents:** Rating the nation’s public schools (one question).
- **All respondents:** Seven reform policy options, including choice (options were randomly ordered). This facilitated an examination of support for choice as a reform tool compared to other contemporary reform options (research question four).
- **Experiment module 1 (split half):** Respondents were randomly placed into one of two groups—one that answered a module of questions about support for different school choice policies (i.e., vouchers, ESAs, tax credits), before seeing a prompt about a reason for choice and a second that received this module of questions after the prompt. This facilitated an examination of differences in support for choice based on the prompt (research question one). Thus, half of the respondents saw questions about school options here.
- **“Diversion/interruption” module 1:** All respondents received two non-choice questions to interrupt the flow of choice questions.

- **Experiment module 2:** Respondents were randomly assigned to receive one of three prompts relative to three reasons for school choice. This facilitated an examination of “issue salience” to answer the first and second research questions. The prompt was embedded within two “diversion” questions to mask module intent.
- **“Diversion/interruption” module 2:** All respondents received two non-choice questions to interrupt the flow of choice questions.
- **Experiment module 1 (split half):** Those respondents who did not see this module earlier (i.e., half of the sample) received it here.
- **Demographics:** The CCES gathers a panel of demographics used to control for differences based on personal characteristics.

## Variables/Questions

The variables (derived from the survey questions) are discussed here organized by module.

## Rating the Nation’s Public Schools

Respondents were asked to rate the nation’s public schools using a six-point Likert scale, ranging from “totally inept” to “excellent.” This served as a general introductory question and produced a covariate for analyses.

## Reform Policy Options

Participants were presented with seven reform policy options (randomly ordered) and asked to rate how effective each would be in facilitating school improvement. The options included: school vouchers, accountability, reducing teachers’ unions’ influence, merit/performance pay, increasing technology use, increasing the length of school days, and smaller class sizes. Effectiveness was measured on a six-point

Likert scale ranging from “not at all effective” to “very effective.”

## Experiment Module 1

This module included six randomly ordered questions, each focused on a different form of school choice. Respondents were asked to indicate their support or opposition using a six-point Likert scale ranging from “strongly oppose” to “strongly favor.” The forms of choice included: universal vouchers, tax-credit scholarships, tax-credit reimbursements, targeted vouchers for low-income children, targeted vouchers for children with special needs, and ESAs.

## Experiment Module 2

This module included five randomly ordered statements, three of which focused on reasons for school choice: freedom to choose, reform through competition, and equal opportunity. Specifically, the statements read,

- “Parents should be free to choose their child’s school—public or private—no matter their income level, race/ethnicity, social status, or personal attributes.”
- “Schools would do a better job of educating students if parents could choose their child’s school—public or private—which would force all schools to compete for students.”
- “It’s almost 50 years after the adoption of the Civil Rights Act, and many poor and minority students still have unequal educational opportunities because they are trapped in bad schools. Allowing parents to choose their child’s school—public or private—would give them more equal opportunity.”

Respondents were asked to indicate their level of agreement with these reasons for choice using a six-point Likert scale ranging from “strongly disagree” to “strongly agree.”

The three prompts were chosen based on prior work indicating how each of these reasons has been prominent (i.e., salient) at different times in discussions about school choice and how the emphases given to these reasons has appeared to shift over time.<sup>72</sup> Carpenter and Kafer note:

[A]s this history of private school choice illustrates, proponents’ philosophical and theoretical underpinnings for choice have appeared to shift over time. Early advocates advanced choice from the position of freedom—religious freedom or the freedom of parents to guide their child’s education. This impulse continued into the middle half the 20th century but took on an additional focus—freedom from state-imposed educational failure.... Political liberals, particularly in the 1960s, also supported choice on the basis of freedom. They established “freedom schools” for black students suffering in substandard schools in the [D]eep South and “free schools” as a reaction against the bureaucratic educational establishment (Forman, 2005). In more recent decades, however, arguments for choice have tended to be built more on economics than freedom. Referring to educational marketplaces, competitive effects, and other economic descriptions, choice supporters describe how choice and competition will improve public education and increase achievement among both students who use vouchers and those who stay in public schools.<sup>73</sup>

## Demographics

Personal characteristics gathered as part of the CCES were used as covariates in the analyses to follow. As Moe and others found, opinions about school choice vary greatly based on demographic characteristics or views about the quality of public education generally, making these important to include as covariates in multivariate analyses.<sup>74</sup> Table 2 includes the covariates and their coding and scales of measurement.

## Analysis

The analyses in this study are described for each of the research questions:

**TABLE 2** Covariates and Coding/Scales of Measurement

| Variable                        | Mean   |
|---------------------------------|--|
| Parent of Child Under 18        | Nominal, 1=Yes, 2=No                                       |
| Family Income                   | Ordinal, 1 to 32, <\$10K to \$250K or more                 |
| Race/Ethnicity                  | Nominal, White, Black, Hispanic, Asian, Other, Dummy Coded |
| Church Attendance               | Ordinal, 1 to 6, More Than Once a Week to Never            |
| 7-point Party ID                | Ordinal, 1 to 7, Strong Democrat to Strong Republican      |
| Public School Rating            | Ordinal, 1 to 6, Totally Inept to Excellent                |
| Ideology                        | Ordinal, 1 to 5, Very Liberal to Very Conservative         |
| Age                             | Continuous, 18 to 89                                       |
| Interest in News/Public Affairs | Ordinal, 1 to 4, Most of the Time to Hardly at All         |
| Education                       | Ordinal, 1 to 6, No High School to Post-Grad               |
| Gender                          | Nominal, 1=Male, 2=Female                                  |
| Employment Status               | Nominal, Full-Time, Part-Time, Not Employed, Dummy Coded   |
| Homeowner                       | Nominal, 1=Yes, 0=No                                       |
| Current/Former Union Member     | Nominal, 1=Yes, 0=No                                       |

## Question 1

This question was analyzed using multiple regression. Six different regression analyses were calculated, one for each of the school choice types—universal vouchers, tax-credit scholarships, tax-credit reimbursements, targeted vouchers for low-income children, targeted vouchers for children with special needs, and ESAs. For each choice type, the dependent variable was level of support. To capture differences in support based on reasons for school choice, differences between four groups were analyzed. Those groups included (A) all those who saw the “support for choice” module before the “reasons for choice module,” (B) post reasons freedom, (C) post reasons competition, and (D) post reasons equality. These were entered into the equation using dummy codes. Covariates were entered as per the coding schemes described previously. Although using this four-group design divides the total sample into smaller sub-groups of approximately 150 per group for the post-groups, a similar approach with similar group sizes has been used successfully in prior research.<sup>75</sup>



## Question 2

This question was analyzed using multiple regression similar to question one. In this case, however, there was only one analysis using as the dependent variable agreement with the respective reason for school choice. Initially, this analysis used a six-group design: pre-freedom, post-freedom, pre-competition, post-competition, pre-equality, and post-equality. Although the pre-post exposure to the questions about type of school choice are not the focus of this question, receiving those questions at different times could have had a priming effect on how respondents answered questions about reasons for choice. Thus, using six groups rather than three (one for each reason) controlled for the possibility of a priming effect. However, as described in endnote 79, differences between pre and post for each reason were not significant, so the six groups were collapsed into three—one for each reason.

## Question 3

Unlike question two, where not all respondents saw all three prompts about reasons for choice, all respondents indicated levels of support for all six choice options at some point in the survey. Therefore, this question was analyzed using repeated measures ANCOVA, which compared levels of support for each type of school choice after controlling for group and the covariates.

## Question 4

This question was also analyzed using repeated measures ANCOVA. However, because all respondents saw all of these questions at the same time, the use of the aforementioned groups was not necessary. Here, the repeated measures ANCOVA compared levels of support for each type of reform initiative after controlling for the covariates included in Table 2.

## Results

The results to follow are organized by research question.

Each sub-section begins with descriptive statistics for the relevant variables/questions, followed by regression or ANCOVA results. Tables for the latter analyses include only the essential statistics (i.e., coefficients, p-values, etc.). Tables with the full results are included in the online appendix for this report. Also not included here are results for the “diversion/interruption” questions. These were not of substantive focus in this research and will not be discussed here. Results for those questions, however, are also presented in the online appendix for this report. The entire survey is included in the report’s appendix at [edchoice.org/SchoolChoiceSignals](http://edchoice.org/SchoolChoiceSignals).

### *Question 1: Is there a significant difference in support for choice based on reasons for school choice?*

Table 3 (next page) includes the descriptive statistics for each reason for choice disaggregated by types of choice and the respective groups. This provides an initial indication of how the freedom, competition, and equality prompts affected respondents’ perceptions of each type of school choice. Note that the results are discussed as increases or decreases in support. Although this was not a panel design, where the same people are measured pre- and post-prompt, the respondents were randomly assigned into the pre-post groups, facilitating an estimate of how people would have responded in a panel design.

For all forms of choice the differences in support before and after the prompts was directionally the same—respondents expressed less support for choice after each of the prompts as compared to before (a greater mean equals greater support). However, the magnitudes of the differences were very slight. At most the differences were four-tenths of one point (on a six-point scale), and on average the difference was less than two-tenths of a point.

With such small differences, it is not surprising to find that few are statistically significant. As Table 4 indicates, only three of these differences were statistically significant. For universal vouchers and ESAs, the pre- and post-differences relative to the competition

**TABLE 3** Descriptive Statistics for Types of Choice Before and After Reasons Prompts

| UNIVERSAL VOUCHER   |      |      |
|---------------------|------|------|
| Experimental Group  | Mean | SD   |
| Group A             | 3.39 | 1.62 |
| Group B Freedom     | 3.30 | 1.64 |
| Group B Competition | 2.98 | 1.55 |
| Group B Equality    | 3.21 | 1.51 |

| TAX-CREDIT SCHOLARSHIP |      |      |
|------------------------|------|------|
| Experimental Group     | Mean | SD   |
| Group A                | 3.71 | 1.50 |
| Group B Freedom        | 3.61 | 1.51 |
| Group B Competition    | 3.60 | 1.54 |
| Group B Equality       | 3.46 | 1.44 |

| TAX-CREDIT REIMBURSEMENT |      |      |
|--------------------------|------|------|
| Experimental Group       | Mean | SD   |
| Group A                  | 3.72 | 1.50 |
| Group B Freedom          | 3.52 | 1.56 |
| Group B Competition      | 3.64 | 1.56 |
| Group B Equality         | 3.67 | 1.55 |

| LOW-INCOME VOUCHER  |      |      |
|---------------------|------|------|
| Experimental Group  | Mean | SD   |
| Group A             | 3.08 | 1.56 |
| Group B Freedom     | 2.89 | 1.55 |
| Group B Competition | 2.87 | 1.64 |
| Group B Equality    | 2.90 | 1.39 |

| DISABILITIES VOUCHER |      |      |
|----------------------|------|------|
| Experimental Group   | Mean | SD   |
| Group A              | 3.29 | 1.47 |
| Group B Freedom      | 2.99 | 1.51 |
| Group B Competition  | 3.13 | 1.59 |
| Group B Equality     | 3.13 | 1.36 |

| EDUCATION SAVINGS ACCOUNT |      |      |
|---------------------------|------|------|
| Experimental Group        | Mean | SD   |
| Group A                   | 3.38 | 1.58 |
| Group B Freedom           | 3.21 | 1.62 |
| Group B Competition       | 3.20 | 1.66 |
| Group B Equality          | 3.06 | 1.55 |

**TABLE 4** Regression Coefficients for Reasons for Choice Prompts (Statistically Significant Relationships in Bold)

| UNIVERSAL VOUCHER   |               |             |             |
|---------------------|---------------|-------------|-------------|
| Experimental Group  | Coeff.        | se          | p           |
| Group B Freedom     | -0.144        | 0.17        | 0.39        |
| Group B Competition | <b>-0.350</b> | <b>0.17</b> | <b>0.04</b> |
| Group B Equality    | -0.065        | 0.16        | 0.69        |

| TAX-CREDIT SCHOLARSHIP |        |      |      |
|------------------------|--------|------|------|
| Experimental Group     | Coeff. | se   | p    |
| Group B Freedom        | -0.188 | 0.16 | 0.23 |
| Group B Competition    | -0.075 | 0.16 | 0.64 |
| Group B Equality       | -0.287 | 0.15 | 0.06 |

| TAX-CREDIT REIMBURSEMENT |               |             |             |
|--------------------------|---------------|-------------|-------------|
| Experimental Group       | Coeff.        | se          | p           |
| Group B Freedom          | <b>-0.343</b> | <b>0.16</b> | <b>0.04</b> |
| Group B Competition      | -0.090        | 0.17        | 0.59        |
| Group B Equality         | -0.060        | 0.16        | 0.70        |

| LOW-INCOME VOUCHER  |        |      |      |
|---------------------|--------|------|------|
| Experimental Group  | Coeff. | se   | p    |
| Group B Freedom     | -0.158 | 0.16 | 0.32 |
| Group B Competition | -0.236 | 0.17 | 0.15 |
| Group B Equality    | -0.206 | 0.16 | 0.19 |

| DISABILITIES VOUCHER |        |      |      |
|----------------------|--------|------|------|
| Experimental Group   | Coeff. | se   | p    |
| Group B Freedom      | -0.308 | 0.16 | 0.05 |
| Group B Competition  | -0.136 | 0.16 | 0.40 |
| Group B Equality     | -0.176 | 0.15 | 0.25 |

| EDUCATION SAVINGS ACCOUNT |               |             |             |
|---------------------------|---------------|-------------|-------------|
| Experimental Group        | Coeff.        | se          | p           |
| Group B Freedom           | -0.256        | 0.17        | 0.13        |
| Group B Competition       | <b>-0.364</b> | <b>0.17</b> | <b>0.04</b> |
| Group B Equality          | -0.273        | 0.16        | 0.09        |

prompt were significant and negative. For tax-credit reimbursement, the difference for the freedom prompt was also significant and negative. The equality prompt produced no significant differences, and no significant effects were evident for tax-credit scholarships, low-income vouchers, and disability vouchers.

**TABLE 5** Descriptive Statistics for Reasons for School Choice by Group

|                   | Mean | SD   |
|-------------------|------|------|
| Freedom Total     | 4.56 | 1.35 |
| Competition Total | 3.79 | 1.62 |
| Equality Total    | 3.82 | 1.48 |

**Question 2: Is there a significant difference in levels of agreement with reasons for school choice?**

Table 5 above includes the means and standard deviations for levels of agreement with the three reasons for school choice. As indicated, the freedom prompt received the greater level of agreement among respondents (4.5 is halfway between “somewhat

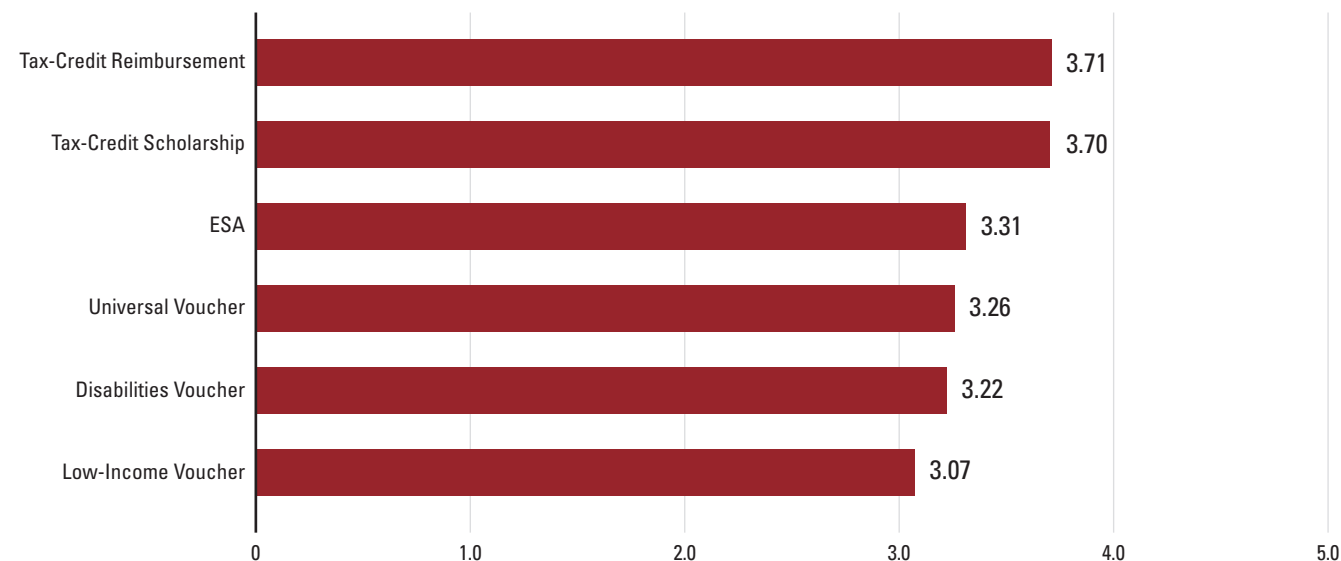
agree” and “agree”), followed by the equality prompt, and then the competition prompt (both of which were at approximately “somewhat agree”).<sup>76</sup>

Regression results indicated the differences between freedom and competition ( $\beta=-0.76, p=0.00$ ) and freedom and equality ( $\beta=-0.70, p=0.00$ ) were significant. The difference between equality and competition, however, was not ( $\beta=0.06, p=0.65$ ). Thus, freedom as a reason for choice appeared to be more salient than competition and equality.

**Question 3: Which type of choice enjoys the strongest support?**

Figure 7 includes the average support for each type of school choice after controlling for when respondents saw the choice questions (i.e., before or after the reasons prompts) and covariates. Although support for the various forms of choice were all between 3 (moderately oppose) and 4 (moderately favor), the types of choice with the greatest support were tax credits, which were essentially equal in support. This was followed by ESAs, universal vouchers, disability vouchers, and finally low-income vouchers.

**FIGURE 7** Support for Different Types of School Choice



**TABLE 6** Pairwise Comparisons of Support for Different Types of Choice (Statistically Significant Differences in Bold)<sup>77</sup>

|                          | Tax-Credit Scholarship | Tax-Credit Reimbursement | Low-Income Voucher | Disabilities Voucher | Education Savings Account |
|--------------------------|------------------------|--------------------------|--------------------|----------------------|---------------------------|
| Universal Voucher        | <b>-0.45</b>           | <b>-0.45</b>             | <b>0.18</b>        | 0.03                 | -0.06                     |
| Tax-Credit Scholarship   |                        | -0.01                    | <b>0.63</b>        | <b>0.48</b>          | <b>0.39</b>               |
| Tax-Credit Reimbursement |                        |                          | <b>0.63</b>        | <b>0.48</b>          | <b>0.39</b>               |
| Low-Income Voucher       |                        |                          |                    | <b>-0.15</b>         | <b>-0.24</b>              |
| Disabilities Voucher     |                        |                          |                    |                      | <b>-0.09</b>              |

Table 6 indicates the differences between the tax-credit programs and all others were statistically significant. Also, the differences between the low-income voucher and all other types of choice were significant. Other comparisons—universal vouchers, disability vouchers, and ESAs—were not significant. Thus, respondents appeared to most favor tax credits and least favor low-income vouchers, with only trivial differences in support among the remaining types of choice.

*Question 4: How does a policy of school choice compare to other reform initiatives in their perceived efficacy for school improvement?*

Figure 8 (next page) includes the average perceived efficacy for each type of school reform after controlling for covariates. School choice in the form of vouchers is in the middle of the pack, with smaller class sizes, technology, and accountability perceived as more efficacious and reducing teachers’ unions’ influence, merit pay, and longer school days as less efficacious.

Table 7 indicates all but two of the comparisons between school choice and the other types of reform were statistically significant. The differences between choice and merit pay and reducing teachers’ unions’ influence were not significant. However, respondents perceived choice to be significantly more efficacious than longer school days but less so compared to accountability, increasing use of technology, and smaller class sizes. Finally, although not the primary

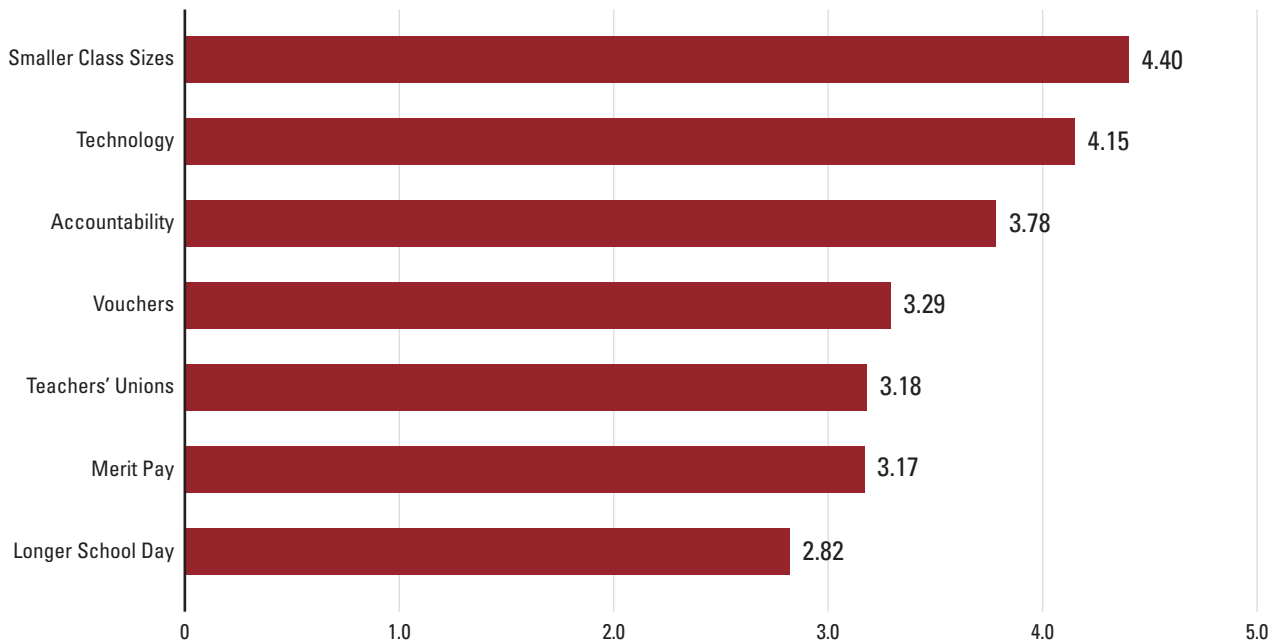
focus of this research, comparisons among other types of reform indicate all other differences were statistically significant, save one—the comparison of merit pay and teachers’ unions. Thus, school choice through vouchers was not seen as the most efficacious way to reform education in the U.S.—smaller class sizes were perceived as such—but it was also not seen as the least; that was reserved for longer school days.

**Discussion**

Across the four research questions guiding this study, results are in some ways quite clear, but in other ways not as much. When presented with six different school choice options, respondents most favored tax credits and least favored low-income vouchers, with only trivial differences in support among the remaining types of choice. And when asked to rate the efficacy of choice among other types of reform, results indicated school choice through vouchers was not seen as the most efficacious way to reform education in the U.S. (that designation belonged to smaller class sizes) but it was also not seen as the least (longer school days was so identified). Less clear were results about reasons for choice. Across three different reasons—freedom, competition, and equality—freedom was significantly more salient among participants. However, freedom’s salience generally did not translate to a difference in support for various forms of choice. In fact, in only a few instances were there significant differences in support for choice based on any of the three reasons.

Some of the results were consonant with prior survey research on choice. In particular, tax credits often

**FIGURE 8** Perceptions of School Reform



**TABLE 7** Pairwise Comparisons of Perceived Efficacy of Different Types of School Reform (Statistically Significant Relationships in Bold)<sup>78</sup>

|                   | Accountability | Teachers' Unions | Merit Pay  | Technology   | Longer School Day | Smaller Class Sizes |
|-------------------|----------------|------------------|------------|--------------|-------------------|---------------------|
| School Choice     | <b>-0.49</b>   | 0.11             | 0.11       | <b>-0.87</b> | <b>0.47</b>       | <b>-1.12</b>        |
| Accountability    |                | <b>0.6</b>       | <b>0.6</b> | <b>-0.38</b> | <b>0.96</b>       | <b>-0.62</b>        |
| Teachers' Unions  |                |                  | 0.00       | <b>-0.98</b> | <b>0.36</b>       | <b>-1.22</b>        |
| Merit Pay         |                |                  |            | <b>-0.98</b> | <b>0.36</b>       | <b>-1.23</b>        |
| Technology        |                |                  |            |              | <b>1.34</b>       | <b>-0.25</b>        |
| Longer School Day |                |                  |            |              |                   | <b>-1.59</b>        |

enjoyed greater support in percentage terms than other forms of choice.<sup>79</sup> Here, not only were tax credits more popular, they were significantly so as compared to different forms of vouchers and ESAs. The difference between the types of tax credits, however, was not significant. Such results have practical implications. To the extent policymakers are interested in adopting new school choice legislation, tax-credit programs of any kind may represent an option that finds broader support in the general population and in courts of law. For the latter audience, tax-credit programs pass muster because they support the education of school-

age children without the expenditures of public funds, thereby avoiding the thorny issues of church and state.<sup>80</sup> The former audience, too, may support tax credits for the same reason, or they might simply support tax-credit programs because anything that reduces taxes seems like a good thing; so much the better if it helps children. This, in fact, is an area where further study could be useful: Do tax-credit programs enjoy greater support because they facilitate school choice or because of their positive implications for taxpayers?

The relative efficacy of choice as compared to other types of reform is also consistent with prior research,<sup>81</sup> particularly Moe’s work from more than a decade ago.<sup>82</sup> One of his primary conclusions was an affinity people appear to have with public schools. He notes:

“Most Americans embrace the public school ideology: They feel a normative attachment to the public school system, a belief in its ideals and a concern with its well-being, which lead them to support the system even when it is performing poorly.”<sup>83</sup>

His conclusion appears to capture some of the results herein. On the very first question of the survey, respondents rated the nation’s public schools between poor and fair. Yet, they rated three structural status-quo reform options—smaller class sizes, increased technology, and accountability—ahead of school choice. Of course, given the prior finding that tax credits enjoy stronger support, these reform results might have differed had the school choice option been tax credits rather than vouchers, but the fact that respondents would rate schools so low but still show preference for the structural status quo indicates choice supporters have much work to do to overcome an ideology favorable to the types of schools the vast majority of Americans attend and to which they send their children.

Where these results diverge in some ways from prior studies is in reasons respondents may (or may not) support choice. Some earlier work concluded choice in support of greater equality of opportunity for low-income families is attractive to Americans and that competition is an efficacious way to improve public schools.<sup>84</sup> Yet, results herein suggest freedom to choose was the more salient of the three options presented to participants. Moreover, vouchers specifically for low-income families appeared to enjoy the least support of all the school choice options, a finding consistent with DiPerna’s and Public Agenda’s national surveys.<sup>85</sup>

In small part, this may be a consequence of question wording. The description of the universal voucher proposal mentions providing wider choice “with

government helping to pay the tuition.” On the other hand, the description of a voucher program for low-income students describes it as “government funds to help pay the tuition.” As previously discussed, question wording can produce differences in responses, although the difference here would result from one word—“funds.”

To the extent the difference in support for low-income and universal vouchers is greater than the effect of “funds,” the implications of such findings suggest historical strategies for the adoption of new choice programs may need rethinking. The first modern choice programs—in Milwaukee and Cleveland—were limited to urban, low-income families. As such, they enjoyed bipartisan support.<sup>86</sup> Programs with wider scope came after in a form of policy incrementalism.<sup>87</sup> But if the ultimate goal is universal choice—whether through vouchers or tax-credit scholarships—incrementalism may no longer be a necessary strategy, at least as measured by public support for reasons for choice.

If public opinion in a given state, for example, demonstrates strong public support for universal vouchers, that may signal to legislators the ability to create universal voucher programs without first enacting a means-tested program. However, in settings where the support of broad coalitions appears necessary for the adoption of choice programs, an incremental approach may still be required.

Finally, the findings concerning reasons for choice are an area requiring further study to understand the dynamics at work. Recall that Moe and DiPerna found support for choice increased after respondents were exposed to more information about it.<sup>88</sup> Although their designs and the one used herein differ in some important ways, the fact that findings are so consistently opposite necessitate further examination.

The reason further research would be particularly helpful is that these findings could merely be an artifact of the study’s design. Recall that half of the sample saw the “support for choice” questions near the beginning of the survey and the other half saw them at the end.



The “reasons for choice” questions—acting as the treatment—were embedded in the “middle,” separated from the “support for choice” questions by diversion questions. Moreover, the “reasons for choice” questions were embedded within two other non-choice-related statements. Therefore, the effect of the treatment may have been diluted by diversion and separation from the treatment—I say “may” because the premise of survey experiments is question-order bias, where a prompt or question earlier in a survey affects how people respond to questions later. Moreover, the “support for choice” and “reasons for choice” questions were separated by only two diversion questions—two screens in the online survey—amounting to mere seconds of time. Therefore, the notion that a small separation such as this would dilute the treatment so consistently seems incongruous with the logic of order bias.

Another design issue, however, might be where the “support for choice” questions came vis-à-vis the question about rating public schools in the U.S.—the first question on the survey. Half of the sample (Group A for this discussion) saw the “support for choice” questions almost immediately after the “rating public schools” question, while the other half (i.e., Group B) did not see the “support for choice questions” until the very end—separated from the “rating of public schools” question by six screens/questions. Therefore, Group A may have appeared comparatively more supportive of choice in response to the proximal “rating of public schools” question. These are suppositions, of course, further highlighting the need for additional study.

Future research could also examine the perceived efficacy of different forms of choice relative to the same reform options measured here and additional ones not considered. A third line of inquiry in a survey experiment could examine the effects of different types of prompts. For example, differences in support for choice could be examined based on the salience of school choice outcomes (i.e., research findings) relative to other types of information.

As these recommendations illustrate, there is much more to be done in analyzing the dynamics of public opinion about school choice, and such work could

contribute more than the basic support/oppose findings that dominate the field currently. While the latter play an important role in taking the public pulse about choice, too few ask why that pulse is the way it is and what can be gleaned from it. As efforts to expand the number and diversity of choice programs increase, so too will the importance of these types of analyses.

## Notes

1. Dick M. Carpenter II and Krista Kafer, "A History of Private School Choice," *Peabody Journal of Education* 87, no. 3 (2012), pp. 336-50, doi:10.1080/0161956X.2012.679587; Terry M. Moe, *Schools, Vouchers, and the American Public* (Washington, DC: Brookings Institution, 2001).
2. Moe, *Schools, Vouchers, and the American Public*, p. 193.
3. Moe, *Schools, Vouchers, and the American Public*; Aimee Williamson and Paul Teske, "School Choice," in *Polling America: An Encyclopedia of Public Opinion*, ed. Samuel J. Best and Benjamin Radcliff, vol 2, P-Z (Westport, CT: Greenwood, 2005), pp. 732-37.
4. William J. Bushaw and Alec M. Gallup, "Americans Speak out — Are Educators and Policy Makers Listening? The 40th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 90, no. 1 (Sept. 2008), pp. 9-20, <http://www.jstor.org/stable/20493542>; Bushaw and Shane J. Lopez, "Betting on Teachers: The 43rd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 93, no. 1 (Sept. 2011), pp. 8-26, <http://www.jstor.org/stable/23049011>.
5. Moe, *Schools, Vouchers, and the American Public*.
6. Paul DiPerna, *Moms and Schools Survey: Nationwide Public Opinion on Schooling*, Polling Papers 8 (Indianapolis: Friedman Foundation for Educational Choice, 2012); DiPerna, *Schooling in America Survey: What Do Mothers Say about K-12 Education?*, Polling Papers 15 (Indianapolis: Friedman Foundation for Educational Choice, 2013), <http://www.edchoice.org/Research/Our-Studies---Reports.aspx>; William G. Howell, Martin R. West, and Paul E. Peterson, "Reform Agenda Gains Strength," *Education Next* 13, no. 1 (Winter 2013), pp. 8-19, <http://educationnext.org/reform-agenda-gains-strength/>; see note 5 above.
7. Carpenter and Kafer, "A History of Private School Choice."
8. Lee Epstein and Jeffrey A. Segal, "Measuring Issue Salience," *American Journal of Political Science* 44, no. 1 (Jan. 2000), pp. 66-83, <http://www.jstor.org/stable/2669293>.
9. Dan Laitsch, "K-12 Voucher Programs and Education Policy: An Exploratory Study of Policy Maker Attitudes and Opinions," *Education Policy Analysis Archives* 10, no. 48 (2002), <http://epaa.asu.edu/ojs/article/view/327/453>.
10. "2013 Charter Law Ranking Chart," Center for Education Reform, last modified Jan. 15, 2013, <http://www.edreform.com/2013/01/2013-charter-law-ranking-chart/>.
11. "School Choice Programs," The Friedman Foundation for Educational Choice, accessed Sept. 16, 2013, <http://www.edchoice.org/School-Choice/School-Choice-Programs.aspx>.
12. Stanley M. Elam, "The 22nd Annual Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 72, no. 1 (Sept. 1990), pp. 41-55, <http://www.jstor.org/stable/20404309>; Elam, *How America Views Its Schools: The PDK/Gallup Polls, 1969-1994* (Bloomington, IN: Phi Delta Kappa, 1995); Williamson and Teske, "School Choice."
13. William G. Howell, Paul E. Peterson, and Martin R. West, "What Americans Think about Their Schools," *Education Next* 7, no. 4 (Fall 2007), pp. 12-26, <http://educationnext.org/what-americans-think-about-their-schools/>; Howell, West, and Peterson, "The 2008 Education Next-PEPG Survey of Public Opinion," *Education Next* 8, no. 4 (Fall 2008), pp. 12-26, <http://educationnext.org/the-2008-education-nextpepg-survey-of-public-opinion/>; Howell, Peterson, and West, "Meeting of the Minds," *Education Next* 11, no. 1 (Winter 2011), pp. 20-31, <http://educationnext.org/meeting-of-the-minds/>; Howell, West, and Peterson, "The Public Weighs in on School Reform," *Education Next* 11, no. 4 (Fall 2011), pp. 10-22, <http://educationnext.org/the-public-weighs-in-on-school-reform/>; Howell, West, and Peterson, "Reform Agenda Gains Strength," *Education Next* 13, no. 1 (Winter 2013), pp. 8-19, <http://educationnext.org/reform-agenda-gains-strength/>.
14. Lowell C. Rose and Alec M. Gallup, "The 32nd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 82, no. 1 (Sept. 2000), pp. 41-48, 53-58, <http://www.jstor.org/stable/20439810>; Rose and A. M. Gallup, "The 33rd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 83, no. 1 (Sept. 2001), pp. 41-48, 53-58, <http://www.jstor.org/stable/20440058>; Rose and A. M. Gallup, "The 34th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 84, no. 1 (Sept. 2002), pp. 41-46, 51-56, <http://www.jstor.org/stable/20440272>; Rose and A. M. Gallup, "The 37th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 87, no. 1 (Sept. 2005), pp. 41-57, <http://www.jstor.org/stable/20441926>; Rose and A. M. Gallup, "The 38th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 88, no. 1 (Sept. 2006), pp. 41-56, <http://www.jstor.org/stable/20442174>; Rose and A. M. Gallup, "The 39th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 89, no. 1 (Sept. 2007), pp. 33-48, <http://www.jstor.org/stable/2044240>; Bushaw and John A. McNee, "The 41st Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 91, no. 1 (Sept. 2009), pp. 8-23, <http://www.jstor.org/stable/40344872>; Bushaw and Shane J. Lopez, "A Time for Change: The 42nd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 92, no. 1 (Sept. 2010), pp. 9-26, <http://www.jstor.org/stable/25753616>; see note 4 above.
15. DiPerna, *Schooling in America Survey*.
16. Steve Farkas, Jean Johnson, and Anthony Foleno, "On Thin Ice: How Advocates and Opponents Could Misread the Public's Views on Vouchers and Charter Schools," (New York: Public Agenda, (1999).
17. Howell, Peterson, and West, "What Americans Think about Their Schools," and "The Public Weighs in on School Reform."
18. Rose and A. M. Gallup, "The 30th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 80, no. 1 (Sept. 1998), pp. 41-56, <http://www.jstor.org/stable/20439361>.
19. See note 15 above.
20. Ibid.
21. Ibid.
22. See note 3 above.
23. Williamson and Teske, "School Choice."



24. George Gallup, Jr., ed., *The Gallup Poll: Public Opinion 1983* (Wilmington, DE: Scholarly Resources, 1984).
25. Gallup, Jr., ed., *The Gallup Poll: Public Opinion 1991* (Wilmington, DE: Scholarly Resources, 1992).
26. Gallup, Jr., ed., *The Gallup Poll: Public Opinion 1996* (Wilmington, DE: Scholarly Resources, 1997).
27. See note 25 above.
28. George H. Gallup, "Second Annual Survey of the Public's Attitude toward the Public Schools," *Phi Delta Kappan* 52, no. 2 (Oct. 1970), pp. 97-112, <http://www.jstor.org/stable/20372820>; G. H. Gallup, "The Third Annual Survey of the Public's Attitudes toward the Public Schools, 1971," *Phi Delta Kappan* 53, no. 1 (Sept. 1971), pp. 33, 35-48, <http://www.jstor.org/stable/20373066>; G. H. Gallup and Elam, "The 13th Annual Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 63, no. 1 (Sept. 1981), p. 33-47, <http://www.jstor.org/stable/20386159>; G. H. Gallup and Elam, "The 15th Annual Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 65, no. 1 (Sept. 1983), pp. 33-47, <http://www.jstor.org/stable/20386902>; A. M. Gallup, "The 17th Annual Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 67, no. 1 (Sept. 1985), pp. 35-47, <http://www.jstor.org/stable/20387521>; A. M. Gallup and Elam, "The 18th Annual Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 68, no. 1 (Sept. 1986), pp. 43-59, <http://www.jstor.org/stable/20403258>; A. M. Gallup and David L. Clark, "The 19th Annual Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 69, no. 1 (Sept. 1987), pp. 17-30, <http://www.jstor.org/stable/20403524>; Elam, Rose, and A. M. Gallup, "The 23rd Annual Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 73, no. 1 (Sept. 1991), pp. 41-56, <http://www.jstor.org/stable/20404553>.
29. Elam, Rose, and A. M. Gallup, "The 25th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 75, no. 2 (Oct. 1993), pp. 137-152, <http://www.jstor.org/stable/20405049>; Elam and Rose, "The 27th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 77, no. 1 (Sept. 1995), pp. 41-56, <http://www.jstor.org/stable/20405485>; Elam, Rose, and A. M. Gallup, "The 28th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 78, no. 1 (Sept. 1996), pp. 41-59, <http://www.jstor.org/stable/20405704>; Rose, A. M. Gallup, and Elam, "The 29th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 79, no. 1 (Sept. 1997), pp. 41-56, <http://www.jstor.org/stable/20405952>; Rose and A. M. Gallup, "The 31st Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 81, no. 1 (Sept. 1999), pp. 41-56, <http://www.jstor.org/stable/20439584>; Rose and A. M. Gallup, "The 32nd Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 33rd Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 34th Annual Phi Delta Kappa/Gallup Poll," *Phi Delta Kappan*, "Policy Implications of the 35th Annual Phi Delta Kappa/Gallup Poll," *Phi Delta Kappan* 85, no. 1 (Sept. 2003), pp. 53-56, <http://www.jstor.org/stable/20440503>; Rose and A. M. Gallup, "The 36th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 86, no. 1 (Sept. 2004), pp. 41-52, <http://www.jstor.org/stable/20441698>; Rose and A. M. Gallup, "The 37th Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 38th Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 39th Annual Phi Delta Kappa/Gallup Poll," see notes 4 and 18 above.
30. Elam, Rose, and A. M. Gallup, "The 26th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes toward the Public Schools," *Phi Delta Kappan* 76, no. 1 (Sept. 1994), pp. 41-56, <http://www.jstor.org/stable/20405256>; Elam, Rose, and A. M. Gallup, "The 28th Annual Phi Delta Kappa/Gallup Poll," Rose, A. M. Gallup, and Elam, "The 29th Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 31st Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 32nd Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 34th Annual Phi Delta Kappa/Gallup Poll," Rose and A. M. Gallup, "The 39th Annual Phi Delta Kappa/Gallup Poll," see note 18 above.
31. A. M. Gallup and Clark, "The 19th Annual Phi Delta Kappa/Gallup Poll."
32. Rose, A. M. Gallup, and Elam, "The 29th Annual Phi Delta Kappa/Gallup Poll," *Phi Delta Kappan*, "Policy Implications."
33. *Ibid.*
34. Howell, Peterson, and West, "What Americans Think."
35. Michael Henderson and Paul E. Peterson, "The 2013 *Education Next* Survey," *Education Next* (2013), <http://educationnext.org/the-2013-education-next-survey/#>.
36. DiPerna, *Moms and Schools Survey*.
37. See note 15 above.
38. See note 5 above.
39. *Ibid.*, p. 208.
40. *Ibid.*, pp. 208-09.
41. See note 16 above.
42. Brian J. Gaines, James H. Kuklinski, and Paul J. Quirk, "The Logic of the Survey Experiment Reexamined," *Political Analysis* 15, no. 1 (2007), pp. 1-20, doi:10.1093/pan/mpl008.
43. Howell, Peterson, and West, "The Persuadable Public," *Education Next* 9, no. 4 (Fall 2009), pp. 20-29, <http://educationnext.org/persuadable-public/>.
44. Howell, West, and Peterson, "The 2008 *Education Next*-PEPG Survey," Howell, Peterson, and West, "Meeting of the Minds;" see note 43 above.
45. Howell, West, and Peterson, "Reform Agenda."
46. Howell, West, and Peterson, "The 2008 *Education Next*-PEPG Survey."
47. See note 43 above.
48. Howell, Peterson, and West, "Meeting of the Minds," and "The Public Weighs In;" Howell, West, and Peterson, "Reform Agenda."
49. See note 36 above.
50. Christopher Wlezien, "On the Salience of Political Issues: The Problem with 'Most Important Problem'," *Electoral Studies* 24 (2005), pp. 555-79, doi:10.1016/j.electstud.2005.01.009.

51. David Weaver, "Issues Salience and Public Opinion: Are There Consequences of Agenda-Setting?" *International Journal of Public Opinion Research* 3, no. 1 (1991), pp. 53-68, doi:10.1093/ijpor/3.1.53.
52. James H. Myers and Mark I. Alpert, "Semantic Confusion in Attitude Research: Salience vs. Importance vs. Determinance," *Advances in Consumer Research* 4, no. 1 (Jan. 1977), pp. 106-10, <http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=9337>.
53. Kim Q. Hill and Patricia A. Hurley, "Dyadic Representation Reappraised," *American Journal of Political Science* 43, no. 1 (Jan. 1999), pp. 109-37, <http://www.jstor.org/stable/2991787>.
54. See note 23 above.
55. See note 16 above.
56. See note 46 above.
57. Ibid.
58. G. H. Gallup and Elam, "The 13th Annual Gallup Poll;" Chester E. Finn, Jr., and Terry Ryan, *Having Their Say: The Views of Dayton-area Parents on Education* (Washington, DC: Thomas B. Fordham Foundation, 2003), [http://www.edexcellence.net/sites/default/files/publication/pdfs/DayTalk\\_6.pdf](http://www.edexcellence.net/sites/default/files/publication/pdfs/DayTalk_6.pdf); Rose and A. M. Gallup, "The 38th Annual Phi Delta Kappa/Gallup Poll;" Bushaw and McNee, "The 41st Annual Phi Delta Kappa/Gallup Poll;" DiPerna, *Virginia's Opinion on K-12 Education and School Choice*, School Choice Survey in the State (Indianapolis: Friedman Foundation for Educational Choice, 2009), <http://www.edchoice.org/Research/Reports/Virginia-s-Opinion-on-K-12-Education-and-School-Choice.aspx>; Bushaw and Lopez, "A Time for Change" and "Betting on Teachers."
59. Rose and A. M. Gallup, "The 38th Annual Phi Delta Kappa/Gallup Poll;" Bushaw and McNee, "The 41st Annual Phi Delta Kappa/Gallup Poll;" Bushaw and Lopez, "A Time for Change;" Bushaw and Lopez, "Betting on Teachers;" see notes 13 and 43 above.
60. G. H. Gallup and Elam, "The 15th Annual Gallup Poll;" Finn and Ryan, *Having Their Say*; see note 48 above.
61. G. H. Gallup and Elam, "The 15th Annual Gallup Poll;" Bushaw and Lopez, "Betting on Teachers."
62. See note 46 above.
63. Bushaw and Lopez, "A Time for Change."
64. Rose and A. M. Gallup, "The 38th Annual Phi Delta Kappa/Gallup Poll."
65. See note 9 above.
66. Jonathan A. Plucker, et al., *2006 Public Opinion Survey on Education in Indiana* (Bloomington, IN: Center for Evaluation and Education Policy, 2007).
67. David R. Garcia, Alex Molnar, and Bruce Merrill, "Parent Attitudes about Education in America: 2006," Arizona Education Policy Initiative (May 2006).
68. See notes 9, 66, and 67 above.
69. See note 9 above.
70. Cooperative Congressional Election Study, "Study Design," accessed July 26, 2013, <http://projects.iq.harvard.edu/cces/book/study-design>.
71. See note 42 above.
72. See note 7 above.
73. Ibid., pp. 347-48.
74. David M. Brasington and Diane Hite, "School Choice and Perceived School Quality," *Economics Letters* 116, no. 3 (Sept. 2012), pp. 451-53, doi:10.1016/j.econlet.2012.04.022; see note 3 above.
75. Daryl G. Press, Scott D. Sagan, and Benjamin A. Valentino, "Atomic Aversion: Experimental Evidence on Taboos, Traditions, and the Non-Use of Nuclear Weapons," *American Political Science Review* 107, no. 1 (Feb. 2013), pp. 188-206, doi:10.1017/S0003055412000597.
76. The original analysis disaggregated reasons into groups A and B because each group received questions about support for school choice programs at different times. Group A saw them before the "reasons for choice" questions, and Group B saw them after. Including the A and B protects against a priming effect of the choice program questions on the "reasons for choice" questions. Although there were slight mean differences in agreement between the subgroups for each reason (e.g., Freedom Group A and Group B), regression analyses indicated those differences were not significant. Therefore, the subgroups for each reason were collapsed into one group per reason and subsequently analyzed with multiple regression.
77. For ease of interpretation this table is structured as a correlation matrix, but the analysis did not use correlation. It used repeated measure ANCOVA. The numbers in the table represent mean differences between the pairs of variables associated with each cell, not correlation coefficients.
78. Ibid.
79. See note 15 above.
80. *Kotterman v. Killian*, 972 P.2d 606 (Ariz.), cert. denied, 528 U.S. 921 (1999). *Ariz. Christian Sch. Tuition Org. v. Winn*, 131 S.Ct. 1436 (2011); *Toney v. Bower* should be 744 N.E.2d (Ill. App. 4th Dist.), appeal denied, 195 Ill.2d 573 (Ill. 2001). Vouchers and ESAs have had their own legal successes in state courts. For the former, see *Meredith v. Pence*, Indiana Supreme Court, No. 49S00-1203-PL-172 (2013). With ESAs, see *Niehaus v. Huppenthal*, No. 1 CA-CV 12-0242 (2013).
81. See note 67 above.
82. See note 5 above.
83. Ibid., p. 346.
84. Ibid.
85. See notes 15, 16, and 36 above.
86. See note 7 above.
87. See note 9 above.
88. See notes 5, 15, and 36 above.



## About the Author



Dick Carpenter serves as a professor of leadership, research, and foundations at the University of Colorado Colorado Springs (UCCS) and a director of strategic research at the Institute for Justice.

Dr. Carpenter has presented and published on a variety of topics ranging from educational policy to occupational licensure. His work has appeared in academic journals, such as the *Journal of Education Finance, Regulation and Governance*, *Fordham Urban Law Journal*, *Economic Development Quarterly*, *Peabody Journal of Education*, *Urban Studies*, *Journal of Special Education*, *The Forum*, *Education and Urban Society*, *Journal of Advanced Academics*, *Journal of School Choice*, and *Leadership*, and magazines, such as *Regulation*, *Phi Delta Kappan*, and the *American School Board Journal*.

Dr. Carpenter has been quoted in newspapers such as the *Wall Street Journal*, *Chronicle of Higher Education*, *Washington Times*, *Fort Worth Star Telegram*, *New York Sun*, *Education Week*, *Atlanta Journal-Constitution*, *Chicago Tribune*, *San Diego Union Tribune*, *Detroit News*, *Columbus Dispatch*, and the *Rocky Mountain News*. Before working at UCCS, Dr. Carpenter worked as a high school teacher, charter school principal, and public policy analyst.

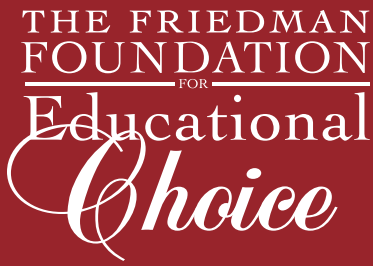
## **Commitment to Methods & Transparency**

The Friedman Foundation for Educational Choice is committed to research that adheres to high scientific standards, and matters of methodology and transparency are taken seriously at all levels of our organization. We are dedicated to providing high-quality information in a transparent and efficient manner.

All individuals have opinions, and many organizations (like our own) have specific missions or philosophical orientations. Scientific methods, if used correctly and followed closely in well-designed studies, should neutralize these opinions and orientations. Research rules and methods minimize bias. We believe rigorous procedural rules of science prevent a researcher's motives, and an organization's particular orientation, from pre-determining results.

If research adheres to proper scientific and methodological standards, its findings can be relied upon no matter who has conducted it. If rules and methods are neither specified nor followed, then the biases of the researcher or an organization may become relevant, because a lack of rigor opens the door for those biases to affect the results.

The authors welcome any and all questions related to methods and findings.



One American Square  
Suite 2420  
Indianapolis, IN 46282  
(317) 681-0745  
**edchoice.org**

**Dr. Milton Friedman**, Founder  
Nobel Laureate

**Dr. Rose D. Friedman**, Founder  
Noted Economist

## **BOARD OF DIRECTORS**

**Dr. Patrick Byrne**, Chairman  
Chairman of the Board & CEO, Overstock.com

**Janet F. Martel**, Vice Chairperson  
Attorney

**Lawrence A. O'Connor, Jr.**, Treasurer  
Executive Director, Butler Business Accelerator

**J. Scott Enright**, Secretary  
Exec. VP & General Counsel, Emmis Communications Corp.

**Robert C. Enlow**  
President & CEO, Friedman Foundation for Educational Choice

**Charles H. Brunie**  
Brunie Associates

**Dr. David D. Friedman**  
Professor, Santa Clara University

**Greg Gianforte**  
Founder, RightNow Technologies

**William J. Hume**  
Chairman of the Board, Basic American, Inc.

**Fred S. Klipsch**  
Chairman, Klipsch Group, Inc.

**Fred Reams**  
Reams Asset Management

**Virginia Walden Ford**  
Education Activist

**Dr. Michael Walker**  
President, The Fraser Institute Foundation

 [facebook.com/edchoice](https://facebook.com/edchoice)

 [twitter.com/edchoice](https://twitter.com/edchoice)