

The Education Choice and Competition Index Background and Results 2013

Grover J. (Russ) Whitehurst with Sarah Whitfield

EXECUTIVE SUMMARY



Grover J. Whitehurst is a senior fellow in Governance Studies and director of the Brown Center on Education Policy at the Brookings Institution.

Sarah Whitfield is Center Coordinator of the Brown Center on Education Policy at the Brookings Institution.

The United States is in the middle of a K-12 education revolution that is characterized by many dramatic transformations – among them, a shift toward more choice by parents in where their children are educated with public funds. This shift is signified by, among other things, the growth of public charter schools, the adoption of open enrollment systems for public schools, the expansion of statewide voucher programs, and continued increases in the availability of technology-based distance/virtual education.

Although the expansion of choice in education is driven by a widely-recognized market model, which posits that allowing students and their families to choose schools and backpack their public funds will force education service providers to innovate and compete on the quality of their product, there is little available information about the current state of school choice in American education. For that reason, the Brown Center on Education Policy at Brookings compiles an annual Education Choice and Competition Index (ECCI) of 100+ U.S. school districts. The ECCI is based on [scoring rubrics](#) within thirteen categories of policy and practice that are important to the availability and quality of choice and to the competition created by choice among providers of education services.

Based on these scoring principles, the Recovery School District in New Orleans and New York City Public Schools occupy the highest rankings on the

2013 ECCI, with scores of 83 and 73 points out of 100, respectively. Both districts occupied those same rankings in 2012, illustrating a larger trend uncovered by the ECCI: districts demonstrate little year-to-year change in their commitment to or design of school choice. The correlation between this year's and last year's aggregate district scores is 0.95. There are, however, exceptions. Denver dramatically improved its ranking, moving from 24th to fifth place, based on its implementation of a unified application process for all its public schools, including charters.*

Despite their high rankings, the Recovery School District and New York City, along with all other top-scoring districts, need improvements. And, as demonstrated by the 34 districts that received an "F" grade, zip code assignment and other policies antithetical to choice still represent standard operating procedure for many school districts across the country.

**Denver is incorrectly credited here with implementing its new choice system during the 2012-2013 school year (the school year which is examined in this report and reflected on the 2013 Education Choice and Competition Index). The system was actually implemented in the 2011-2012 school year.*



The Education Choice and Competition Index: Background and Results 2013

Background

Every system for delivering services develops to fill particular needs in a set of unique circumstances. As these needs and circumstances change, so too do the characteristics of the delivery system. This is as true for services that are negotiated between individuals, e.g., babysitting, as for services that are delivered by businesses, e.g., pizza restaurants. Thus whereas babysitting was once the province of informal agreements between relatives and neighbors and pizza was produced and delivered exclusively at individual food establishments, there are now many mobile apps to facilitate the former while the pizza industry is dominated by large chains that compete as much on the quality of their service automation systems as on the taste of their food. In these two examples and countless others, the process of evolution of the service system is organic, e.g., the management of Dominos is alone responsible for its service delivery system, and that management responds to, tries to anticipate, and sometimes shapes the changing realities of the marketplace.

There is another category of services that are deemed sufficiently critical to society that the systems by which they are delivered are heavily regulated by and sometimes provided directly by government – health care and education being two examples in 21st-century America that have wide impacts on the economy and personal well-being. A rational argument for government’s heavy involvement in these services is that they generate huge externalities. That is to say, they affect those who are not directly involved in individual education and health care transactions. Only government is in the best position to increase the benefits and to reduce the costs associated with these externalities.

As an example of a negative externality, consider people who contract or are at risk of contracting communicable diseases. An unregulated health care system is unlikely to provide the necessary preventive and treatment services for those who cannot afford or are unwilling to pay the market price. Thus the person at risk of contracting viral hepatitis who goes unvaccinated because of the costs may subsequently infect many other people. Government intervenes to reduce this negative externality by, for example, subsidizing the costs of vaccine development and encouraging the immunization of all infants.

As an example of a positive externality, an educated work force within a geographical region increases the likelihood that knowledge-intensive industries will locate there. This creates an economic engine that benefits the whole community through, among other things, lower tax rates and more spending. Government anticipates this positive externality by investing in a public education system that is intended to increase the region's human capital and thereby its competitiveness in attracting high-wage employers.

Thoughtful observers understand that there are significant trade-offs between the dynamism of service delivery systems that operate in a largely unregulated marketplace vs. the control of externalities that is possible when services are delivered by or heavily regulated by government. In education, for instance, it is likely that a delivery system of for-profit schools charging tuition to families would generate more innovation and productivity than our present public education system, but would also leave behind the children of families that could not afford to pay, as well as the children of more affluent families that chose bad schools because of the lack of information on their performance.

We want and need innovation and dynamism in education but we also want and need to avoid the consequences to society of large numbers of children who are ill-educated, and to maximize the public good that may result from investments in education that would be unlikely to occur in an open marketplace. The challenge for government officials is to create education systems that are as dynamic as possible while still creating positive externalities and muting negative ones.

The United States is in the middle of a K-12 education revolution that can be characterized by the swing of a pendulum away from public education monopolies intending to deliver a uniform product toward a system of diverse providers from which parents and students can choose. The signs of this revolution include:

- Growth of public charter schools, which did not exist 25 years ago and presently enroll about 5 percent of public school students in the 42 states that allow the formation of charter schools (with a market share of at least 20 percent in 32 large school districts)¹
- Expansion and technical refinement of open enrollment systems involving traditional public schools whereby parents actively choose the school their child will attend within their school district rather than having to accept an assignment to the school that is closest to their place of residence

- Emergence in Indiana, Louisiana, and Arizona of statewide voucher programs that bring to 12 the number of states that provide a public subsidy for certain categories of students (such as those with disabilities and those attending failing schools) to attend private schools of the parents' choice² (additional states support private school choice through tax-credit scholarships and individual tax deductions)³
- Continued increases in the availability of technology-based distance/virtual education as an alternative to traditional seat-based education,⁴ including new and disruptive models of deploying such technologies such as blended learning and flipped classrooms⁵
- Passage in the U.S. House of Representatives of a reauthorization of the Elementary and Secondary Education Act that allows economically disadvantaged families to take Title I dollars to any public school of their choice, including charters

This revolution is driven by a theory of action, at least among the revolutionaries, that begins with the position that the historically dominant system of public education has too frequently failed at controlling the very externalities that justify government control. In other words, the present monopoly in which government-run school districts are the sole providers of publicly funded K-12 education has not succeeded in providing a good enough education for the children of disadvantaged families for them to be economically self-sufficient and socially mobile. Nor has it maximized positive externalities by producing a U.S. population with the world-leading skills and knowledge that are likely prerequisites for our future economic strength. These failures are compounded by the high costs of our education system relative to other developed countries.

The swing of the pendulum towards greater choice in education services is driven by a market model in which allowing students and their families to choose schools and backpack their public funds will force education service providers to compete on the quality of their product. This, then, will disrupt the stasis of the current public school district monopoly, encourage innovation, enhance school performance, and reduce inefficiencies.

This is a reasonable and promising model of reform, but the collection of information about the status and consequences of school choice has lagged far behind the pendulum's swing toward choice and competition. This leaves both advocates and opponents of school choice with political and policy positions that are not empirically well-grounded. Such belief-based systems tend to generate more heat than light, and

leave those who are more interested in what actually works than reform theory not able to refine their efforts based on good evidence.

Most of the movement on school choice and competition has been at the level of individual school districts (although we are beginning to see entities such as the Recovery School District in Louisiana and the Achievement School District in Tennessee that have statewide scope). In this context, understanding the impact of school choice has to begin with basic information such as the mix of enrollment across regular public, charter, magnet, and private schools at the district level and how this changes over time. But because the devil is in the details of school choice, information on the market share of different types of schools is only the starting point. Two districts that look identical with regard, for example, to the availability of charter schools, may be organized quite differently with respect to how schools are funded, the quality of information on school performance that is made available to parents, and the design of the system by which parents exercise choice.

The Education Choice and Competition Index – 2013

In order to fill the void on information about school choice at the district level and to provide a resource to policy makers responsible for the systems by which students and schools are matched, the Brown Center on Education Policy at Brookings releases an annual Education Choice and Competition Index (ECCI).

The ECCI is based on [scoring rubrics](#) within thirteen categories of policy and practice that are important to the availability and quality of choice and to the competition created by choice among providers of education services. The data on which districts are scored are derived largely from the U.S. government's National Center for Education Statistics.⁶ For categories in which no federal data are available, information is derived from school district websites and interviews with district staff. The ECCI generates numerical scores and overall letter grades for each of 100+ school districts, and provides detailed information and scores for each of the underlying categories on which the overall scores and letter grades are based.

The ECCI is grounded in the conceptual model and policy recommendations of the Brown Center Task Force on Choice and Competition in K-12 Education.⁷ The Task Force framed its work within the realities of large variation in the quality of public schools, widespread selection of schools by choice of place of residence, and choice being exercised predominantly within the public sector. These realities offer opportunities for

common ground between advocates for choice and advocates for public schools. The goals these communities can share are providing more educational opportunity for children from disadvantaged backgrounds, and reducing the number of low-performing schools. The mechanisms they can share are a system that affords parents as much choice as possible within the universe of taxpayer-supported students and schools, portals by which parents can readily access rich information on the performance of schools, a system for exercising choice that minimizes the disparity between the schools parents want their children to attend and those to which their children gain access, and a funding system that supports the growth of parentally preferred schools and school systems.

What does a school district, or more to the point, a metropolitan area have to do to create K-12 choice and competition and receive a high score on the ECCI? A detailed answer to this question can be found in the formal [scoring guide](#). In general, a high score on the ECCI requires that the geographical area served by a school district provide parents of school-aged children with:

- Maximum choice, including:
 - good traditional public schools
 - magnet schools
 - charter schools
 - affordable private schools
 - virtual education
- A choice process that maximizes the match between parental preference and school assignment, including:
 - no default (everyone must choose)
 - a common application
 - rich and valid information on school performance (including test results that incorporate growth and are comparable across all schools)
 - clear presentation of information (including support for less educated parents)
- Funding and management processes that favor the growth of popular schools at the expense of unpopular schools, including:
 - weighted student-based funding in which a high proportion of the total local, state, and federal funding follows students to their schools of choice
 - processes for closing unpopular schools
- Subsidies for the costs of choice for poor families, particularly for transportation

2013 Results

The 2013 ECCI reveals substantial year-to-year stability among districts in their commitment to and design of school choice. Thus the correlation between this year's and last year's aggregate district scores is 0.95. This stability is also evident in terms of the top-scoring districts. For 2013, just as for 2012, the top-scoring district nationally is the Recovery School District in New Orleans, which receives a score of 83 out of a possible 100 points on the ECCI. The Recovery School District's score is up a couple of points since 2012, reflecting a shift in their school funding model, which was already heavily student-centered, such that nearly all funds now follow children to the school of the parents' choice.

The Recovery School District in New Orleans scores well on nearly all of the components of the ECCI. In particular, there is high availability of choice, with nearly 80 percent of schools being charters, a good supply of affordable private schools, vouchers for private school attendance available from the state, and virtual education provided through the Louisiana Virtual School. The school assignment process maximizes the match between parental preference and school assignment through an ideal computer matching algorithm. There is no default school assignment (everyone must choose), a common application for traditional public schools and charters, and information on school performance that includes test results for children attending private schools. Information on school performance is clearly presented with support for parents in understanding and navigating the choice process. Transportation expenses to schools of choice are covered through free public transportation tokens or yellow bus service.

Even though the Recovery School District in New Orleans is the top-scoring district in the ECCI, there is still room for improvement. In particular, parents would benefit from additional information on school performance, which presently lacks data on teachers and principals, does not present school gains calculated from individual student test scores, does not reveal the popularity of schools based on their rankings in parental preference, and does not enable side-by-side school comparisons. The information presently provided is useful and easily understood, but parents will be better informed and make better choices if they can compare schools on dimensions such as the absentee rate for teachers and the school principal's previous record. Further, New Orleans still provides a geographical priority for admission to elementary schools rather than allowing families to choose freely as it does for later grades. Evidence suggests that such walk-zone priorities can be eliminated with little effect on student assignments.⁸



New York City also repeats its position in second place overall and in first place among the 100 largest school districts in America. NYC's total score for 2013 is identical to its score for 2012 (73 out of 100 possible points). NYC scores particularly well with respect to its choice process, policies for closing unpopular schools, and information provision to parents and students.

NYC is exceptional relative to nearly all other large districts in its use of a centralized computer-based algorithm to assign public high school students to schools in such a way as to maximize the match between student preferences and school assignment, conditional on any admission requirements exercised by the school. Students apply once and receive one offer, assuming they can match with one of the schools they have listed among their choices. This is a far better system than others that are used in most other districts that provide choice, but it is inferior to the systems used in New Orleans and Denver in that it does not incorporate charter schools.

NYC also scores particularly well in terms of its policies for restructuring or closing undersubscribed schools. The NYC Department of Education not only has a published regulation citing declining enrollment as a reason for closure, but a history of closing large numbers of undersubscribed schools.

An area in which NYC has room for substantial improvement is the availability of alternative schools – only 14 percent of NYC students attend a charter, magnet, or affordable private school, a much lower proportion than in other large districts such as Washington, D.C. and lower than many other districts in which charter schools have a larger market share. The application process also needs work: While all public high schools are included in the application process, charters have separate applications, as do middle schools and elementary schools.

Although most districts marched in place in 2013, a few implemented new choice policies that moved their scores and ranks substantially. The most interesting among these is Denver, which moved from 24th to fifth place on the basis of a new unified choice system in which parents exercising school choice complete only one form on one timeline for all public schools, including every charter school in the district. The system, which the district calls SchoolChoice, replaced a confusing welter of more than 60 different enrollment and wait-list processes, including separate applications and lotteries for each of the district's 35 charter schools. Denver's choice architecture is now very similar to that deployed in the Recovery School District (RSD) in New Orleans,

which uses a OneApp system that includes not only RSD-operated schools but also charter schools, Orleans Parish School Board schools, and private schools participating in the Louisiana Scholarship Program.

The New Orleans and Denver models are close to optimal in terms of convenience for parents, the difficulty of gaming the system, and the likelihood of the best match between the parent/student true preference and the resulting assignment. They are based on work for which Alvin Roth and Lloyd Shapley shared the Nobel Memorial Prize in Economics in 2012. The systems use sophisticated computer algorithms to create school assignments that result in the smallest possible mathematical difference between the expressed choices of parents and school assignments over the whole population of parents exercising choice. Thus while every family does not get its first choice (and parents are understandably upset when their child is not assigned to the school they most prefer), the process is both fair in the sense that everyone plays by the same rules and equitable in the sense that there is no other system that would produce school assignments that would yield closer matches to what parents express as their preferences. For example, in Denver in 2012, 83 percent of parents got a school assignment for their child that was their first, second or third choice, and fewer than 400 families failed to get a school assignment for their child that was in their top five list (with the majority of these failures to match occurring at the pre-K level).⁹

Choice and Competition in Context

School choice and competition are important and empirically promising components of efforts to reform public schools and to provide a good education for all children. But choice and competition are not a panacea because education, like health care, is heavily regulated, involves one-time choices that are difficult to repair, does not rest on a strong base of evidence, and does not respond to market principles in the way that an unregulated or lightly regulated market would. If, for example, a restaurant is losing customers because of a bad chef, the owner can replace the chef. A hospital administrator is unlikely to have that much flexibility with regard to an underperforming physician and a school principal very rarely can dismiss an ineffective teacher.

Education is a very complex service for which to shop, with limited opportunities to repair bad decisions. If someone chooses a restaurant with bad service or questionable food or unreasonable prices, that person has the opportunity to make a better choice the next time out. And they likely know what they like and can consult a variety of

online information sources or friends to gather relevant information to help make a good choice in the first place. The choice of a school for one's child is not similarly guided by strong tastes developed through past experience, or good sources of information, or the ability to easily recover from a bad decision.

Most importantly, the competition between restaurants or stores or manufacturers or airlines is, absent a truly disruptive innovation, carried out within known parameters. An airline can compete on price, convenience, seat pitch, loyalty programs, and so forth, and management knows how to vary most of the relevant dimensions of each of these components. The challenge is not how to design the service but how to match that design with consumer demand. In contrast, the leaders of a school that are competing with the leaders of other schools based on student achievement and parental satisfaction do not know nearly enough about how to change the design and implementation of the school's characteristics so as to impact the outcomes that their potential customers value. And this is largely not their fault, because we are at the point today in developing the knowledge base in education that we were prior to World War II in developing the knowledge base in medicine, i.e., there is a lot we do not know.

These constraints on market-based competition mean that school districts, states, and the nation have to continue to invest in approaches that have the promise of being a tide that lifts all boats. These include such things as identifying effective instructional materials; developing and implementing professional development programs that work; and deploying accountability systems that motivate and inform. Ideally we want systems in place that encourage schools to compete on being among the very best while assuring a minimal standard of service that is good enough to give all students the opportunity for advancement. This requires attention to the parameters of choice and competition that are highlighted in the ECCI as well as to the knowledge base for learning and instruction that is the foundation of efforts to improve schooling under any governance arrangement.

Table 1: District Scores and Rankings, 2013

Rank	District Name	Grade	Numeric Score
1	Recovery District (New Orleans)	A	0.83
2	New York City	A-	0.73
3	Orleans Parish	A-	0.71
4	Houston	B	0.63
5	Denver	B	0.61
6	Minneapolis	B	0.60
7	Washington DC	B-	0.59
8	San Diego	B-	0.58
9	Tucson Unified	B-	0.57
9	Chicago	B-	0.57
11	Baltimore City Public Schools	B-	0.56
12	Milwaukee	B-	0.55
13	Duval	C+	0.53
13	Dade County	C+	0.53
15	Wake County	C+	0.51
15	Newark	C+	0.51
15	San Francisco Unified	C+	0.51
15	DeKalb County	C+	0.51
19	Pinellas County	C+	0.50
19	Boston	C+	0.50
19	Douglas County	C+	0.50
22	Brevard	C	0.49
22	Baltimore County	C	0.49
22	Charlotte-Mecklenburg	C	0.49
22	Forsyth County	C	0.49
22	Cherry Creek	C	0.49
27	Los Angeles	C	0.48
27	Fresno Unified	C	0.48
29	Hillsborough	C	0.47
29	Cobb County	C	0.47
29	Lee (FL)	C	0.47
29	Prince George's County	C	0.47
29	Greenville	C	0.47
34	Palm Beach	C	0.46
35	Pasco	C	0.46

Rank	District Name	Grade	Numeric Score
35	Seminole	C	0.46
35	Volusia	C	0.46
35	Washoe County	C	0.46
35	North East ISD	C	0.46
35	Omaha	C	0.46
41	Broward	C	0.45
42	Montgomery County	C-	0.44
42	Dallas	C-	0.44
42	Jefferson County (Colorado)	C-	0.44
42	Gwinnett County	C-	0.44
46	Memphis	C-	0.43
46	Jefferson County (KY)	C-	0.43
46	Polk	C-	0.43
49	Garland ISD	C-	0.42
50	Granite District	C-	0.41
50	Philadelphia	C-	0.41
52	Albany	C-	0.40
52	Albuquerque Public Schools	C-	0.40
52	Corona-Norco Unified	C-	0.40
52	Henrico County	C-	0.40
52	San Juan Unified	C-	0.40
52	Orange	C-	0.40
58	Davidson County	D	0.39
58	Sacramento City Unified	D	0.39
60	Austin ISD	D	0.38
60	Prince William County	D	0.38
60	San Bernardino City Unified	D	0.38
60	Lewisville ISD	D	0.38
60	Oakland Unified	D	0.38
60	Clark County	D	0.38
60	Fulton County	D	0.38
60	Indianapolis	D	0.38
68	Detroit City	D	0.37
68	Long Beach	D	0.37
70	Fairfax County	D	0.36
70	Wichita	D	0.36
70	Aldine ISD	D	0.36

Rank	District Name	Grade	Numeric Score
73	Columbus City	D	0.35
74	Northside ISD	F	0.34
74	Jordan	F	0.34
74	Osceola	F	0.34
77	Anne Arundel County	F	0.33
77	VA Beach City	F	0.33
77	Arlington ISD	F	0.33
80	Elk Grove Unified	F	0.32
80	Santa Ana Unified	F	0.32
80	Capistrano Unified	F	0.32
83	Cypress-Fairbanks	F	0.31
83	Plano ISD	F	0.31
83	Conroe ISD	F	0.31
83	Chesterfield County	F	0.31
83	Katy ISD	F	0.31
83	Klein ISD	F	0.31
89	Mesa Unified	F	0.30
89	Davis	F	0.30
91	Fort Bend	F	0.29
91	Shelby County	F	0.29
93	Garden Grove Unified	F	0.27
93	El Paso ISD	F	0.27
95	Clayton County	F	0.26
95	Knox County	F	0.26
95	Cumberland County	F	0.26
98	Guilford County Schools	F	0.24
99	Fort Worth ISD	F	0.23
99	Atlanta	F	0.23
101	Alpine	F	0.22
101	San Antonio ISD	F	0.22
101	Pasadena ISD	F	0.22
101	Howard County	F	0.22
105	Brownsville ISD	F	0.18
105	Mobile County	F	0.18
107	Loudoun County	F	0.13



End Notes

1. National Alliance for Public Charter Schools. *A Growing Movement: America's Largest Charter School Communities*. Washington, D.C.: National Alliance for Public Charter Schools, December 2013. http://www.publiccharters.org/data/files/Publication_docs/2013%20Market%20Share%20Report%20Report_20131210T133315.pdf
2. National Conference of State Legislatures. *School Voucher Laws: State-by-State Comparison*. Online. Accessed 27 December 2013. <http://www.ncsl.org/research/education/voucher-law-comparison.aspx>
3. The Friedman Foundation for Educational Choice. *Fast Facts on Private School Choice*. Indianapolis: The Friedman Foundation for Educational Choice, August 2013. <http://www.edchoice.org/Newsroom/Fast-Facts-on-Private-School-Choice.pdf>
4. Institute of Education Sciences National Center for Education Statistics. *Digest of Education Statistics: Table 121, Percentage of public school districts with students enrolled in technology-based distance education courses and number of enrollments in such courses*. Online. Accessed 27 December 2013. http://nces.ed.gov/programs/digest/d12/tables/dt12_121.asp
5. Christensen, Calyton M., Michael B. Horn and Heather Staker. *Is K-12 Blended Learning Disruptive? An introduction to the theory of hybrids*. San Mateo, CA: Clayton Christensen Institute for Disruptive Innovation, 2013. <http://www.christenseninstitute.org/wp-content/uploads/2013/05/Is-K-12-Blended-Learning-Disruptive.pdf>
6. The data collection of the National Center for Education Statistics (NCES) that is the primary resource for the ECCI is the Common Core of Data (CCD). There is a substantial lag, which has increased recently, between the collection and release of CCD data. The most recent release of the CCD in January of 2014 is of data that was submitted by states to the U.S. Department of Education two years earlier (in January of 2012 for the 2011-2012 school year). All other data sources for the ECCI are for the most recently completed school year (2012-2013).
7. Greene, Jay, Tom Loveless, W. Bentley MacLeod, Thomas Nechyba, Paul Peterson, Meredith Rosenthal, and Grover Whitehurst. *Expanding Choice in Elementary and Secondary Education: A Report on Rethinking the Federal Role in Education*. Washington, D.C.: The Brookings Institution, February 2010. http://www.brookings.edu/~media/research/files/reports/2010/2/02%20school%20choice/0202_school_choice.pdf
8. Dur, Umut M., Scott Duke Kominers, Parag A. Pathak, and Tayfun Sönmez. *The Demise of Walk Zones in Boston: Priorities vs. Precedence in School Choice*. Cambridge, MA: National Bureau of Economic Research, April 2013. <http://www.nber.org/papers/w18981.pdf>
9. Poppen, Julie. "DPS's SchoolChoice worked - for most," *EdNews Colorado*, March 12, 2012. <http://www.ednewscolorado.org/news/dps-schoolchoice-worked-for-most>

Governance Studies

The Brookings Institution
1775 Massachusetts Ave., NW
Washington, DC 20036
Tel: 202.797.6090
Fax: 202.797.6144
[www.brookings.edu/
governance.aspx](http://www.brookings.edu/governance.aspx)

**Editing, Production and
Layout**

Liz Sablich

About the Brown Center on Education Policy

Established in 1992, the Brown Center on Education Policy conducts research and provides policy recommendations on topics in American education. The Brown Center is part of The Brookings Institution, a private nonprofit organization devoted to independent research and innovative policy solutions. For more than 90 years, Brookings has analyzed current and emerging issues and produced new ideas that matter – for the nation and the world.

Brown Center on Education Policy
The Brookings Institution
1775 Massachusetts Ave. NW
Washington DC, 20036
202.797.6090
202.797.6144 (f)
<http://www.brookings.edu/brown.aspx>

Email your comments to browncenter@brookings.edu

The data collection effort for this paper benefited from the invaluable help of Ellie Klein, Laila Heid, Amy Yeung, Ben Ehrlich, and Mariana Hernandez.

This paper is distributed in the expectation that it may elicit useful comments and is subject to subsequent revision. The views expressed in this piece are those of the authors and should not be attributed to the staff, officers or trustees of the Brookings Institution.

