

# WHAT SHOULD WE REALLY LEARN FROM NEW ORLEANS AFTER *THE STORM*?

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In July of 2018, the Education Research Alliance for New Orleans released a comprehensive, summative longitudinal report on the effects on student outcomes of the package of reforms implemented in New Orleans following hurricane Katrina in the fall of 2005. The following policy brief reviews the findings of this recent report by Douglas Harris and Matthew Larsen, offers critique of their methods and interpretation of findings and attempts to provide broader policy context for those findings.

In summary, Harris and Larsen find significant positive effects of Post-Katrina New Orleans school reforms on short-term student achievement measures, and longer term college attendance, persistence and completion. They attribute these results to the “market-based” reforms adopted following Katrina, and go to great lengths to dismiss or downplay threats to the validity of this conclusion. But for many reasons, that attribution may be misguided.

- a) First, the authors downplay the potential influence of significant changes in the concentration of poverty across neighborhoods and schools—specifically the reductions in extreme poverty which may contribute significantly to the improved student outcomes in the years following Katrina;
- b) Second, the authors understate the importance of the substantial increases to funding which occurred concurrently with organizational and governance changes in the district, specifically disclaiming the importance of increased funding by suggesting that the funding increases would not have existed but for the reforms;
- c) Third, the authors argue, without evidence, that similar funding increases provided to the old, New Orleans school system would not likely have had similar impact, claiming they would have been inefficient or wasteful. At the same time the authors sidestep the fact that much of the funding increase in the new system was allocated toward increased and duplicative overhead expenses, as well as increased transportation costs resulting from citywide choice;
- d) Fourth, the authors define the treatment as the package of market-based reforms, which are largely changes to the governance and organization of New Orleans schools, rather than focusing on the types of schools, programs and services, and qualifications of incoming staff who entered this marketplace.

Adopting similar governance and organizational changes, and citywide choice in other contexts may lead to very different results. It remains unclear whether population change and redistribution, coupled with the infusion of resources could have resulted in similar effects, even without structural reforms.

## I. INTRODUCTION

In July of 2018, the Education Research Alliance for New Orleans released a comprehensive, summative longitudinal report on the effects on student outcomes of the package of reforms implemented in New Orleans following hurricane Katrina in the fall of 2005. The following policy brief reviews the findings of that recent report by Douglas Harris and Matthew Larsen, offers critique of their methods and interpretation of findings and attempts to provide broader policy context for those findings.

In brief, the authors find significant positive effects of Post-Katrina education reforms on both short run and medium-term student outcomes, including standardized assessment scores, graduation rates, college attendance, persistence and completion. The authors attribute the majority of these gains to market-based organizational reforms, dismissing the substantial influx of financial resources to New Orleans schools that accompanied those reforms, and downplaying the potential role of demographic changes over the studied period. The authors argue that they have accounted adequately for those changes in their models. In a related 2015 op-ed based on earlier findings, Doug Harris, the principal investigator on the project, offers cautions regarding the extent to which New Orleans (NOLA) findings provide guidance for similar reforms elsewhere.

As I will explain in this policy brief, the authors' dismissal of the role of increased financial resources is wholly unsatisfactory as well as illogical. In fact, the authors specifically note that estimates from recent rigorous research "suggest that the increased spending could explain a substantial share of our estimated effects." (p. 41) The authors downplay the causal effect of increased resources by suggesting that the reforms led to the increased resources and not vice versa. This explanation, however, intentionally sidesteps whether similar gains might have been made with increased resources alone, absent the structural and organizational reforms.

The authors' assertion that their data, methods and models sufficiently account for demographic changes is also problematic. The authors' assert that while there may have been population shifts before and after the storm, the gains realized after the storm can be attributed to the reforms because the models account for those demographic shifts, and any differences which were not accounted for are likely trivial.

I explain in this brief why binary indicators of falling above or below the 185% income threshold for poverty are wholly insufficient for differentiating the conditions under which children live and attend school, especially in settings with very high child poverty rates and where poverty is geographically concentrated by neighborhoods. More precise measures than free or reduced priced lunch alone are required to fully account for changes to the level and clustering of poverty in New Orleans.

A 2015 report from the Brookings Institution found that concentrated poverty declined more in New Orleans than in nearly every other city in the country between 2000 and 2013 (dropping from 2<sup>nd</sup> to 40<sup>th</sup> in concentrated poverty among major U.S. cities).<sup>1</sup> That decline must be considered as a relevant factor.

The following brief explores these issues in greater depth. I begin by summarizing the major findings of Harris and Larson’s most recent technical report on New Orleans reforms. Next, I provide an overview of how policymakers and the media should evaluate this, and other similar research in terms of providing guidance for interventions which might be introduced or scaled up elsewhere. Policymakers must be able to identify the specific elements of any given reform package – or “treatments” studied – and how those reform elements interact with their policy context. NOLA “reforms” are particularly ill-defined from a research “treatment” perspective and thus, for deriving policy implications, and the NOLA policy context is especially unique.

Next, I address the authors’ suggestion that the substantial spending infusion which accompanied reforms should not be considered a significant cause of the improved outcomes (or a significant element of the studied treatment), and the authors’ suggestion that demographic shifts and changes to child poverty concentration by neighborhood are likely inconsequential to their conclusions regarding the effectiveness of the “reforms.” Additionally, I point out that the reforms may have led to less efficient expenditure of the increased spending than might have occurred if spending was increased without the reforms. 9889

## II. SUMMARIZING HARRIS & LARSON’S MAJOR FINDINGS

Harris and Larsen summarize their major findings from their July, 2018 technical report as follows:

We find that the package of reforms improved the quantity, quality, and equity of schooling in the city on almost every available measure, increasing average test scores by 0.28-0.40 standard deviations, high school graduation by 3-9 percentage points, college attendance by 8-15 percentage points, college persistence by 4-7 percentage points, and

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<sup>1</sup> <https://www.brookings.edu/blog/the-avenue/2015/08/27/concentrated-poverty-in-new-orleans-10-years-after-katrina/>

college graduation by 3-5 percentage points. These effects translate to 10-67 percent increases over baseline levels.

The reforms also apparently reduced educational inequality by race and income on most measures. Our estimation procedures address potential threats to identification, including, for example, changes in the population. The reforms highlight the potential of market-based school reforms, though we also identify reasons why effects of this large size and range may not be expected in other locations and circumstances.

“Threats to identification” are factors other than the package of NOLA reforms that might explain why there was an improvement in student outcomes post-Katrina. Research that attempts to attribute the improvements to the reforms must account for these threats to be credible.

Notable in this description is the authors insistence on referring to the “treatment” under investigation as the package of reforms or “market-based school reforms” which are, by the authors’ interpretation the “cause” of the changes in measured outcomes they observe via their selected empirical measures, methods and models. They observe (or estimate) these changes in various outcome measures from prior to, through the years following Katrina. They attribute these changes to the “package of reforms” implemented following Katrina, and put significant effort into dismissing other possible causes.

There are indeed sizeable and important shifts in both short and longer term outcomes for students attending schools within the city of New Orleans following Katrina. Student outcomes are improved after the storm. Whether the authors’ attribution of the majority of these effects to “the package of reforms” is valid, and should be used to guide policy elsewhere, however, remains suspect.

Doug Harris himself offers cautions regarding the interpretation of findings from earlier (2015) NOLA research.<sup>2</sup> For example, Harris explains that “...though disadvantaged students benefited, they seem to have benefited less than other groups.” Harris acknowledges concerns over services provided to children with special needs and the potential for disadvantaged students to fall through the cracks in a market-based, autonomous system. Harris also acknowledges that his early studies may be critiqued for too heavily focusing on available test scores, a concern presumably put to rest by his new findings regarding college persistence and completion. Finally, Harris acknowledges that the reforms were coupled with “a massive influx of federal and philanthropic funding and skilled people from across the country,” which may be difficult to replicate elsewhere.

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<sup>2</sup> [https://www.washingtonpost.com/posteverything/wp/2015/08/31/how-everyone-is-getting-it-wrong-on-new-orleans-school-reform/?utm\\_term=.340459b7f57a](https://www.washingtonpost.com/posteverything/wp/2015/08/31/how-everyone-is-getting-it-wrong-on-new-orleans-school-reform/?utm_term=.340459b7f57a)

Harris concludes that: “Other districts should look to New Orleans, but tread carefully.”<sup>3</sup> More recently, Harris explained that “In some sense, any policy advocacy based on research requires some degree of extrapolation.”<sup>4</sup>

While I concur with Harris’s critique, I go further in suggesting that the policy context of New Orleans – the dramatic disruption of low-income housing stock and a substantial reduction of concentrated poverty induced by Katrina make it very difficult, if not entirely implausible, to extrapolate NOLA findings to any other policy context. Further, in many policy contexts there the assumption that providing “choice” replaces the need to provide additional resources. That is, it is assumed that regardless of funding levels, where choice is provided, some excellent choices will emerge, and those choices will be the ones to survive market pressures, resulting in an improved system. This political tendency to offer choice and market-based reforms as a substitute, rather than as a complement for additional financial investment, makes it even less likely that other school systems would realize the benefits of similar structural changes.<sup>5</sup>

### III. RESEARCH DESIGN, EMPIRICAL EVIDENCE & POLICY IMPLICATIONS

Here, I offer a model of how Harris and Larsen characterize their methods and findings. As explained above, Harris and Larsen consider the “package of reforms” or “market-based reforms” to the “treatment” they studied and thus the “cause” of the subsequent changes in student outcomes. As noted above, the authors make some attempts, given the available data, to address intervening factors, including children from low-income households (FRPL – Free or Reduced-priced Lunch), students with disabilities (SWD), English language learners (ELL) and racial groups.

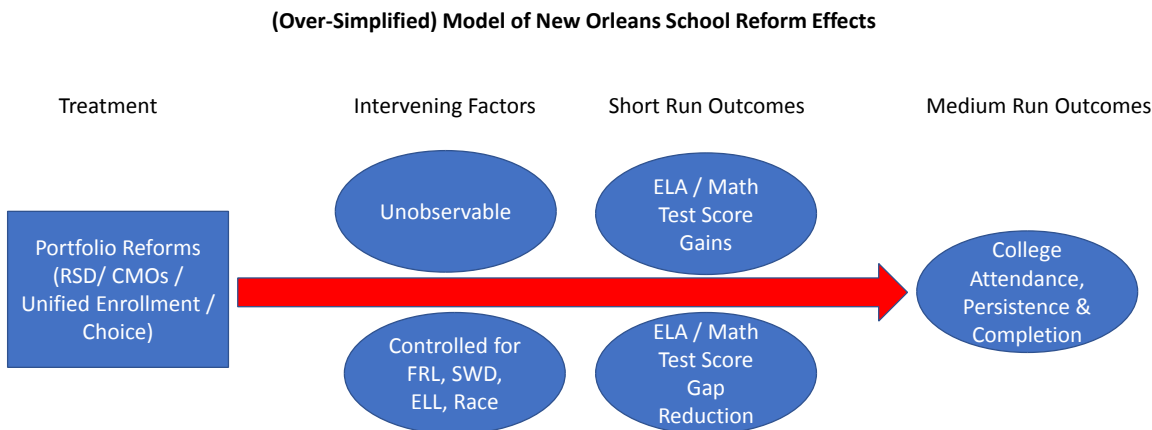
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<sup>3</sup> [https://www.washingtonpost.com/posteverything/wp/2015/08/31/how-everyone-is-getting-it-wrong-on-new-orleans-school-reform/?utm\\_term=.340459b7f57a](https://www.washingtonpost.com/posteverything/wp/2015/08/31/how-everyone-is-getting-it-wrong-on-new-orleans-school-reform/?utm_term=.340459b7f57a)

<sup>4</sup> <https://nepc.colorado.edu/publication/newsletter-NOLA-081418>

<sup>5</sup> See, for example: <https://schoolfinance101.wordpress.com/2017/10/09/choice-as-a-substitute-for-adequacy/>

Figure 1



However, if we want to ascertain how to replicate elsewhere the effects of the treatments studied in New Orleans, we would have to have a better idea as to what those treatments entail and a more comprehensive understanding of the policy context. Figure 2 makes an attempt at parsing a) the elements of the reforms, and b) additional contextual factors. For example, some of the elements of the reforms are the adoption of a citywide school choice system, managed via a centralized enrollment system. Whether or to what extent that alone can be considered a specific treatment is still questionable. In addition, the choice model was coupled with shifting governance to a “portfolio” system of schools, which is also ill-defined as a treatment.

In fact, this “treatment” per se actually leads to multiple widely varied treatments in the form of different school managers operating different school models, providing varied instructional strategies, using different discipline/behavior management policies and so on. In response to recent negative findings on outcomes from Texas charter schools, Harris himself explains:

One clear pattern in the research is that “no excuses” schools seem to have more positive effects on typical student outcome measures than other kinds of charter schools. This is true in Boston as well as in the Dobbie and Fryer study. (Actually, the pattern with no excuses also aligns with the old effective schools literature.) New Orleans, too, has had a large share of schools that might be described as no excuses.

No excuses schools also tend to spend more money, and we do see higher spending in New Orleans. It may be the combination of schooling model and spending. (p. 2)<sup>6</sup>

As such, if the mix of providers and their access to resources in any other setting were substantially different than in NOLA, the outcomes might be different as well. Each operator –

<sup>6</sup> <https://nepc.colorado.edu/publication/newsletter-NOLA-081418>

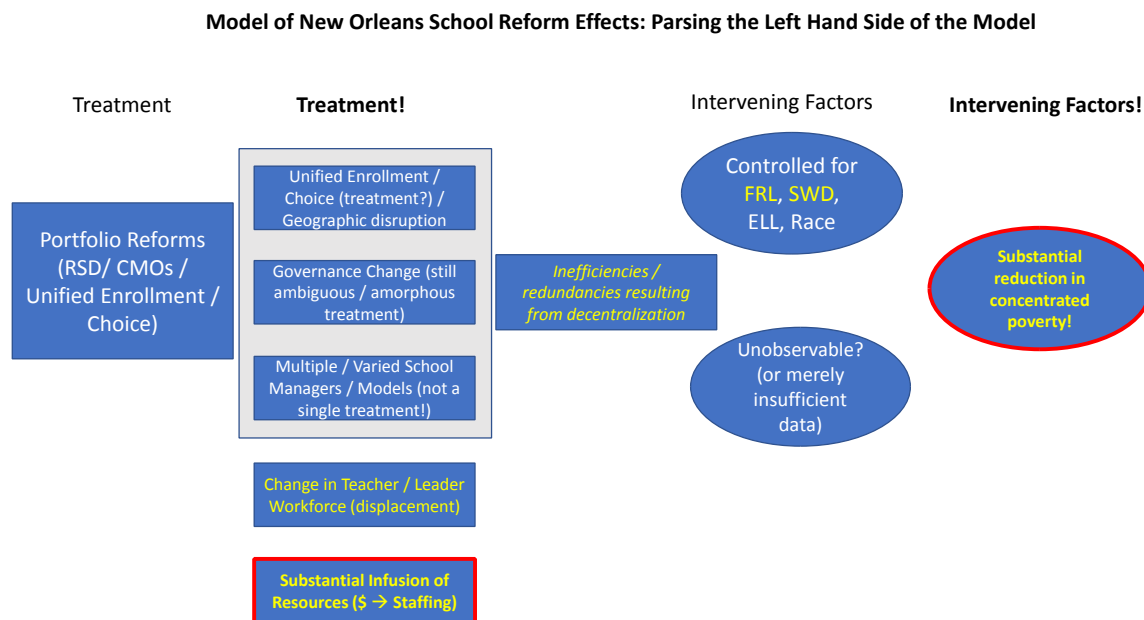
each school model – is in effect its own unique treatment. Adopting a portfolio managed choice system is not.

I have listed two other factors in addition to the core elements of the “reform” package in Figure 2. The first comes from Doug Harris’s own acknowledgement that after the storm, talent converged on New Orleans to aid in the rebuilding of the city and its schools. Not only that, because much of that talent was young, that talent was inexpensive and even today, those who came immediately following the storm are not yet senior teachers or administrators. Those who stayed are approaching mid-career.

Often overlooked, but mentioned in the recent technical report, is the role of additional funding which accompanied the reforms. That funding is considered by the authors to be part of the treatment, however, additional financial resources could also be considered a separate treatment and a significant cause of improvement. Arguably, if the funding increase had occurred independent of the market-based reforms, more of that funding might have been spent on classroom teachers, programs and services and less on transportation and duplicative administration which are expenses associated with “choice” systems.

Finally in Figure 2, while Harris and Larsen do account for population changes, their measures are insufficient to capture one of the most substantial changes in NOLA over time. That is, the substantial reduction in concentrated poverty – concentrated geographically by neighborhoods and concentrated at the very lowest levels of family income. Harris and Larsen’s attempts to dismiss the inadequacy of their measures are also insufficient.

Figure 2



Harris and Larsen’s technical report identifies the two major “threats to validity” of their claim that “market based reforms” specifically were the cause of substantive changes in student outcomes.<sup>7</sup> However, as I dissect in the following two sections, Harris and Larsen’s dismissal of these validity threats is unsatisfactory. It is equally if not more reasonable to conclude that a) the substantive infusion of resources, regardless of accompanying reforms coupled with b) the dramatic reduction in concentrated poverty, were the main causes of improved measured student outcomes post-Katrina.

## VI. FISCAL & RESOURCE TRENDS

Here, I explore the question of changes to financial resources in New Orleans schools following *the storm*. Fiscal resource trends are reported in a series of figures in Appendix A. In conjunction with per pupil spending increases, numbers of staff per pupil also increased substantially (largely due to reductions in the numbers of pupils) (Figure A7). We can expect significant benefits of reduced pupil to teacher ratios resulting in reduced class sizes.

Related reports by Doug Harris have outlined resource changes in significant detail. Harris explains that “New Orleans’ publicly funded schools spent 13% (\$1,358 per student) more per pupil on operating expenditures than the comparison group after the reforms, even though the comparison group had nearly identical spending before the reforms.” Further, spending on administration increased substantially (66 percent, or nearly \$700 per pupil) relative to other similar schools statewide, more than half of which was attributable to administrative salaries. Instructional expenditures per pupil declined by a margin similar to the increase in administrative spending. About half of that decline was related to reduced staff benefits, with the next largest decline being in staffing salaries, consistent with prior studies that show that charter school staff is less-experienced and lower-paid.<sup>8</sup> Finally, Harris notes that “transportation spending and other expenditures, which typically include contracts to outside firms, each increased by 33%.”<sup>9</sup>

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<sup>7</sup> Harris and Larsen assert: “With additional analysis, we are able to largely rule out several threats to identification, including population change, strategic behavior from performance-based accountability, trauma and disruption from the hurricane, and the effectiveness of the interim schools that evacuated students temporarily attended. The treatment effects appear to be an order of magnitude larger than the potential biases, and some biases partially cancel out. The main potential alternative explanation for the effects, beyond the reforms themselves, is that the charter-based system gained a considerable financial advantage over the comparison groups (Buerger & Harris, 2016), though these alone cannot explain the overall effects.” (p. 7)

<sup>8</sup> Dennis Epple, Richard Romano, and Ron Zimmer, “Charter Schools: A Survey of Research on Their Characteristics and Effectiveness,” in *Handbook of the Economics of Education*, vol. 5 (Amsterdam: Elsevier, 2016), 139–208.

<sup>9</sup> Christian Buerger and Douglas N. Harris, *How Did the New Orleans School Reforms Influence School Spending?* (technical report, Education Research Alliance for New Orleans, New Orleans, 2017), <https://educationresearchalliancencola.org/publications/does-school-reform-spending-reform-the-effect-of-the-new-orleans-school-reforms-on-the-use-and-level-of-school-expenditures>.



To summarize, spending increased substantially, but a significant share of that spending was consumed by increased transportation expenses as well as higher administrative and overhead expense. Instructional staffing expenses were held artificially low due to the influx of a relatively inexperienced teacher workforce, and changes to pensions and other benefits. It is likely that these expense reductions are not sustainable over time, meaning that total spending will either have to increase further to maintain the system, or that other expenses will need to be substantially reduced.

Harris and Larsen acknowledge in their technical report that such an infusion of spending might in fact “explain a substantial share of our estimated effects.” (p. 41) They draw this conclusion by considering the effects of spending increases estimated in a handful of recent major national studies, including the work of Jackson, Johnson, & Persico (2016) and similar work by Lafortune, Rothstein, and Schanzenbach (2016).<sup>10</sup> But then, Harris and Larsen apply contorted logic to discount the possibility that increased spending of this magnitude alone might lead to similarly positive student outcomes. They base this argument on the following assumptions:

- 1) That “the corruption and dysfunction in the Orleans Parish School Board prior to the storm implies that the additional resources would not have been used to generate better outcomes to the extent that the average district did in the above school funding studies.” (p. 42) and
- 2) “the city’s spending increase, which came mainly from local funding and philanthropists, may have been partly caused by the reforms,” and therefore “Any effect of spending on student outcomes, in this sense, may not be just an alternative explanation, but rather an indirect effect of the reforms.” (p. 42)

On the first point, the first mention of corruption induced inefficiency in Orleans Parish before the storm occurs in this explanation, without any empirical validation. That is, that the supposed corruption in the district necessarily led to a reduction in the efficiency with which the district produced student outcomes, relative to other districts. Thus, this assertion is purely speculative. Harris reiterates this assertion in a recent interview, claiming: “Pouring money into a failing district isn’t the answer, nor is it politically plausible in the long run.”<sup>11</sup> The studies by Jackson, Johnson and Persico, as well as Lafortune, Rothstein, and Schanzenbach address the infusion of additional spending to schools and districts, without judgement as to whether any, most or all of

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<sup>10</sup> I provide a thorough discussion of these and related studies at: Baker, B. D. (2016). Does money matter in education?. *Albert Shanker Institute*. <https://files.eric.ed.gov/fulltext/ED563793.pdf>

<sup>11</sup> <https://nepc.colorado.edu/publication/newsletter-NOLA-081418>

the recipient districts of additional funding were previously “failing,” finding that the infusion of funding alone yielded substantive positive effects.

Figure A8 (Appendix A) shows that prior to Katrina, Orleans Parish spending remained below the average for the metro area, and poverty was well above average. That is, no one ever attempted a substantive infusion of funding into the old New Orleans school district to see if it might have a positive effect.

The second argument is perhaps even stranger. The authors argue that the money would not have been there but for the reforms, thus it is unreasonable to consider what might have occurred if the money were there, absent the reforms. They argue that because the reforms attracted the philanthropic money, which helped result in better outcomes, the reforms are the primary causal agent.

This argument does not at all negate the probability that similar investment without similar reforms may indeed result in similar outcome changes, given the demographic changes which also occurred during the period. Further, as noted above, the infusion of money coupled with the citywide choice and decentralized management resulted in a sizeable portion of the increased spending being diverted to transportation services and higher overhead expenses. Had the funding infusion occurred without the reforms – the true counterfactual – a larger share may have been directed toward classrooms and instructional staff. Arguably, similar spending increases allocated toward human resources in direct contact with students, rather than being dispersed through the market-based reform model, may have had even larger positive effects (similar in magnitude to those estimated by Jackson, Johnson and Persico, 2016).<sup>12</sup>

## V. DEMOGRAPHIC TRENDS

In a recent interview, Doug Harris continues to assert that “The New Orleans population was disadvantaged before and that stayed about the same.”<sup>13</sup> When considering average shares of children who qualify for free or reduced priced lunch (under 185% income threshold for poverty), or other measures of central tendency (means, medians) for the city as a whole, this may appear true. But, there have indeed been substantial changes in the distribution of poverty across schools and neighborhoods and the concentration of extreme poverty in New Orleans.

A 2015 report from the Brookings Institution found:

Our analysis indicates, however, that the share of the city’s poor residents living in neighborhoods of extreme poverty dropped from 39 percent in 2000 to 30 percent in

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<sup>12</sup> For a thorough discussion, see Baker, B. D. (2017). How Money Matters for Schools. [https://learningpolicyinstitute.org/sites/default/files/product-files/How\\_Money\\_Matters\\_REPORT.pdf](https://learningpolicyinstitute.org/sites/default/files/product-files/How_Money_Matters_REPORT.pdf)

<sup>13</sup> <https://nepc.colorado.edu/publication/newsletter-NOLA-081418>

2009-13 (the latest small-area data available). This drop occurred at the same time that concentrated poverty rose dramatically in many major American cities, spurred by the Great Recession and slow recovery. As a result, whereas New Orleans ranked second among big U.S. cities in concentrated poverty prior to the storm, it ranked just 40th by 2009-13 (see Appendix table).<sup>14</sup>

Table 1 compares the change in concentrated poverty in New Orleans to that of selected other major cities with large shares of children attending charter schools. While Detroit, for example, experienced a 48% increase in child poverty, New Orleans experienced a 9% decrease.

Table 1

| City                                    | 2009-13 |                           |      | 2000                      |      |
|---|---------|---------------------------|------|---------------------------|------|
|   | CHANGE  | Concentrated Poverty Rate | Rank | Concentrated Poverty Rate | Rank |
| <i>New Orleans, Louisiana</i>           | -9%     | 30%                       | 40   | 39%                       | 2    |
| <i>Newark, New Jersey</i>               | 1%      | 32%                       | 32   | 32%                       | 10   |
| <i>Washington, District of Columbia</i> | 3%      | 24%                       | 58   | 21%                       | 38   |
| <i>Philadelphia, Pennsylvania</i>       | 11%     | 37%                       | 26   | 27%                       | 21   |
| <i>Memphis, Tennessee</i>               | 16%     | 39%                       | 22   | 23%                       | 34   |
| <i>Kansas City, Missouri</i>            | 24%     | 31%                       | 39   | 7%                        | 82   |
| <i>Detroit, Michigan</i>                | 48%     | 63%                       | 3    | 16%                       | 45   |

Source: Brookings Institution analysis of GeoLytics Neighborhood Change Database and American Community Survey data

<sup>14</sup> <https://www.brookings.edu/blog/the-avenue/2015/08/27/concentrated-poverty-in-new-orleans-10-years-after-katrina/>

Others have characterized similar changes in extreme poverty and economically imbalanced neighborhood revitalization in New Orleans.<sup>15</sup>

Harris and Larsen insist throughout their technical report that they have sufficiently tackled this potential threat to validity of their findings. Specifically, their method accounts for whether or not children are from families that fall below the 185% income threshold for poverty, as well as race. But their method misses entirely two important factors:

- a) The geographic concentration of poverty by neighborhoods, and
- b) The gradients of child poverty/family income below the 185% income threshold for poverty.

Harris and Larsen's Footnote #13 partially addresses the critique that their findings may not fully account for the change in (average improvement of) housing stock after the storm, for those who returned.<sup>16</sup> But this footnote, along with later references to public housing, are insufficient to dismiss the Brookings findings of substantial reduction to concentrated poverty.

The authors present a handful of other comparisons in their attempt to dismiss this threat to the validity of their finding that "reforms" not demographics (and spatial distribution) were the primary cause of outcome changes.

The authors report 3 analyses in Table 2 of the technical report:

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<sup>15</sup> Rivlin, G. (2016) White New Orleans Has Recovered from Hurricane Katrina. Black New Orleans Has Not. <https://talkpoverty.org/2016/08/29/white-new-orleans-recovered-hurricane-katrina-black-new-orleans-not/>  
New York Times. Ten Years After Katrina. <https://www.nytimes.com/interactive/2015/08/26/us/ten-years-after-katrina.html>  
Fussell, E., Sastry, N., & VanLandingham, M. (2010). Race, socioeconomic status, and return migration to New Orleans after Hurricane Katrina. *Population and environment*, 31(1-3), 20-42.  
Bliss, L. (2015) 10 Years Later, There's So Much We Don't Know About Where Katrina Survivors Ended Up <https://www.citylab.com/equity/2015/08/10-years-later-theres-still-a-lot-we-dont-know-about-where-katrina-survivors-ended-up/401216/>

<sup>16</sup> A related possibility is that the students who evacuated benefited from being in better housing and/or neighborhoods. It is possible that, as in some past disasters, New Orleans' housing quickly surpassed the quality that had preceded it and that this drove positive educational effects for those who did return (Hornbeck & Keniston, 2017). This seems unlikely, however, as the quality of the New Orleans' housing stock was unchanged for non-flooded homes for sale and remained considerably worse for flooded homes one full year after Katrina (McKenzie & Levendis, 2010). Most homeowners lacked flood insurance, and state and federal programs averaged about \$40,000 per home, or about 17 percent of their prior values. This likely understates the percentage of the housing value covered for low-income homeowners, but not enough to generate an overall improvement in the housing stock for low-income families. It is also worth considering whether there was a general improvement in neighborhood quality after the storms, in which case the effects might be interpreted more in line with the well known Moving to Opportunity (MTO) program (Ludwig et al., 2013). However, this, and other evidence presented later about poverty, suggests that the improvements in student outcomes we observe cannot plausibly be explained by neighborhood effects either.

- 1) Comparison of the pre-treatment scores for 3<sup>rd</sup> graders in NOLA versus other hurricane affected districts, showing that “returners” to NOLA had lower pre-treatment scores (Table 2);
- 2) Comparison of changes to median family income, child poverty and adult education levels between NOLA and other hurricane affected districts, revealing only small differences;
- 3) Tests of the relationship (and predictive validity) between child poverty, parent education measures and student outcomes at grade 3, 5 and 8 using a national longitudinal database.

Given these supplemental analyses, Harris concludes that demographic change is an insignificant concern, noting “We’re confident about that because we come to the same conclusion from three entirely different types of analysis.”<sup>17</sup>

The first comparison of pre-treatment scores of 3<sup>rd</sup> graders is of limited value, focusing on differences between returners in NOLA and comparison districts, and not capturing to any extent the economic and neighborhood conditions under which these children live. Notably, economic background and neighborhood conditions affect not only a child’s starting point (where grade 3 is well beyond that starting point) but also the rate at which children progress over time.

The second comparison, focusing on median family income, shares of adults with a BA or higher, or HS or lower, and children in poverty (100% income threshold) also fails to capture important gradients in economic status, as well as geographic concentration. The Brookings report also finds that overall poverty rates remained relatively unchanged, despite large reductions in concentrated poverty.<sup>18</sup>

The third analysis drawing on the Early Childhood Longitudinal Study (ECLS), while a clever attempt to discern the extent to which marginally richer data might lead to more accurate prediction also remains insufficiently precise to capture underlying demographic changes. Yes, the data are richer and more precise, but still not rich enough to capture the substantive differences in pre and post-Katrina populations or their geographic/neighborhood concentration. The authors find that even this marginal improvement to precision suggests that their own estimates (of the reform effects) might be upwardly biased.<sup>19</sup>

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<sup>17</sup> <https://nepc.colorado.edu/publication/newsletter-NOLA-081418>

<sup>18</sup> Noting: “As the Data Center observes in [its recent post-Katrina look at the region](https://www.brookings.edu/blog/the-avenue/2015/08/27/concentrated-poverty-in-new-orleans-10-years-after-katrina/), the poverty rate in the city of New Orleans in 2013 (27 percent) was statistically unchanged from 2000.” <https://www.brookings.edu/blog/the-avenue/2015/08/27/concentrated-poverty-in-new-orleans-10-years-after-katrina/>

<sup>19</sup> Noting: “The latter number suggests a possible upward bias in the treatment effects estimates in the pooled analysis, but all of the estimates are small in magnitude relative to the average treatment effects we show later.” (p. 25)

These are all reasonable attempts to clarify the extent of potential bias in their models, which make use of the best available data. However, the following conclusions expressed by the authors are over-confident:

- “Overall, it appears that the elimination of public housing and the disproportionate impact of flooding on low-income neighborhoods had a minimal effect on the relative demographics or test scores of the public school population in the years after the hurricanes.” (p. 25) and,
- “This evidence suggests that population change is not a major threat to identification in the pooled analysis, especially after controlling for measurable demographic changes.” (p. 25)

The Brookings findings cited above reveal substantial reduction of concentrated poverty, whether directly as a function of flooding and changes to public housing, or due to other factors. That population change cannot be ignored and is not resolved by the comparisons provided by Harris and Larsen. The effects of child poverty and more specifically spatially concentrated child poverty, intergenerational poverty, and the duration of poverty exposure, all matter greatly when it comes to short and longer-term outcomes.<sup>20</sup>

Indeed, one of the most significant factors affecting both the level and ongoing trajectory of student outcomes is child poverty – as it affects both individuals and groups of children concentrated by their neighborhoods, schools and classrooms. Both individual and concentrated poverty greatly affect children’s outcomes. As such, disrupting concentrated urban poverty may be one of the most effective possible reform strategies available.<sup>21</sup>

The following two graphs illustrate the distribution of child poverty before and after the storm for public school enrolled children between the ages of 5 and 17 residing in New Orleans city and in New Orleans metropolitan area. Figure 3, for example, shows the distribution of the poverty index for families with children in New Orleans from Census 2000 and from the American Community Survey for years 2012 through 2016. The poverty index is set to 100 for

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<sup>20</sup> Coley, R. J., & Baker, B. (2013). *Poverty and education: Finding the way forward*. Educational Testing Service Center for Research on Human Capital and Education.  
Michelsmore, K., & Dynarski, S. (2016). *The gap within the gap: Using longitudinal data to understand income differences in student achievement* (No. w22474). National Bureau of Economic Research.  
Lubienski, S., & Crane, C. C. (2010). Beyond free lunch: Which family background measures matter?. *education policy analysis archives*, 18, 11.  
Duncombe, W., & Yinger, J. (2005). How much more does a disadvantaged student cost?. *Economics of Education Review*, 24(5), 513-532.  
Orfield, G., & Lee, C. (2005). Why segregation matters: Poverty and educational inequality. *Civil Rights Project at Harvard University (The)*.  
Duncan, G. J., & Murnane, R. J. (Eds.). (2011). *Whither opportunity?: Rising inequality, schools, and children's life chances*. Russell Sage Foundation.

<sup>21</sup> Chetty, R., Hendren, N., & Katz, L. F. (2016). The effects of exposure to better neighborhoods on children: New evidence from the Moving to Opportunity experiment. *American Economic Review*, 106(4), 855-902.

the income threshold for poverty. Thus, the free lunch cut-point would be at a poverty index of 130 and reduced lunch at 185. Severe or extreme poverty would be at an index value of 50. Gray bars indicate the pre-Katrina period and transparent bars indicate the post-Katrina period. Figure 3 shows that the largest shares of children are from families not merely below, but well below the free or reduced price lunch thresholds. However, pre and post Katrina levels are substantially different. Notably, there are gray bars (pre-Katrina) that spike (high concentrations) well below the poverty threshold, but there are no similarly high transparent bars (post-Katrina), even though there are still generally higher concentrations of children below the 100% income threshold for poverty.

Using National School Lunch Program qualifications as cut points to declare children as poor or non-poor is relatively imprecise as it declares all those to the left of the 185 poverty index to be similarly poor, thus providing no information regarding the proportion of students who live in extreme poverty. The change is similar for the broader metropolitan area in Figure 4. Across the metropolitan area, the proportion of children in families at less than half the income threshold for poverty dropped from 19% to 14%.

Figure 3

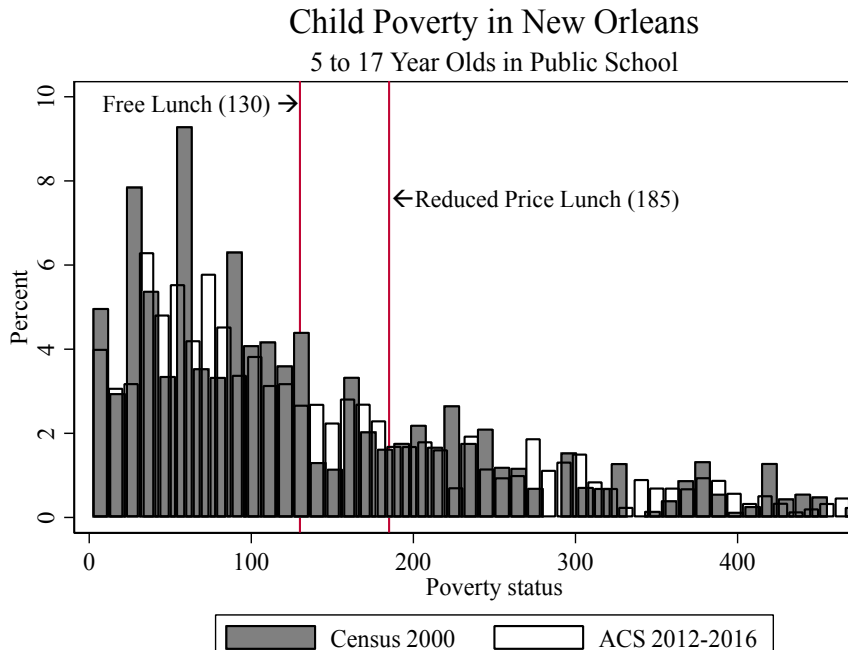


Figure 4

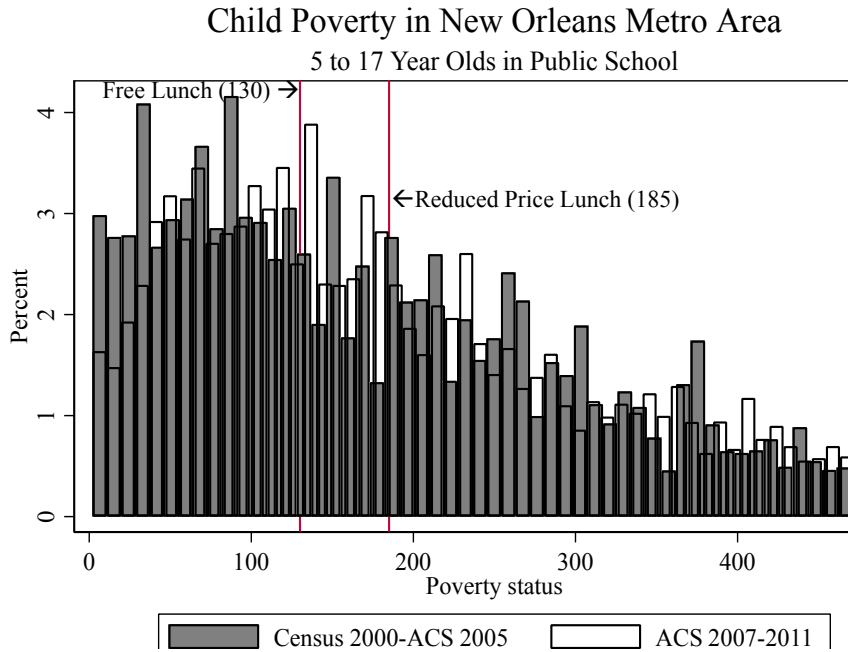
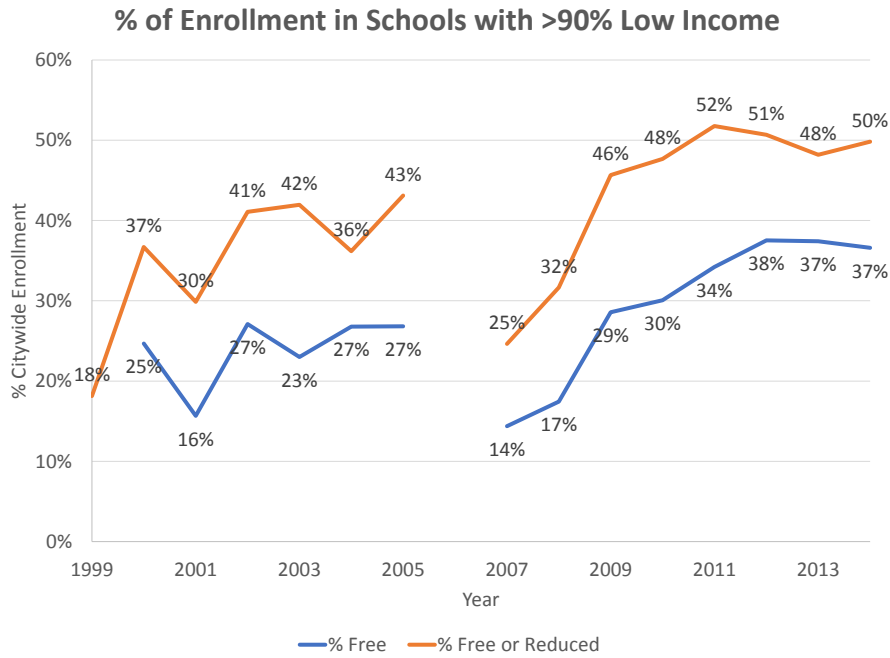


Figure 5, Figure 6 and Figure 7 display additional changes in the shares of children attending racially isolated and low-income isolated schools before and after Katrina. These figures are based on school enrollment data from the National Center for Education Statistics, Common Core of Data, Public School Universe file, for all schools within the city limits of New Orleans. Importantly, these figures show that not only was there a significant disruption to enrollment patterns at the point of Katrina, but that there are also continuing changes in enrollments. Figure 5, for example shows that the share of children attending schools which have greater than 90% low-income children initially plummeted quite significantly, but have since rebounded.



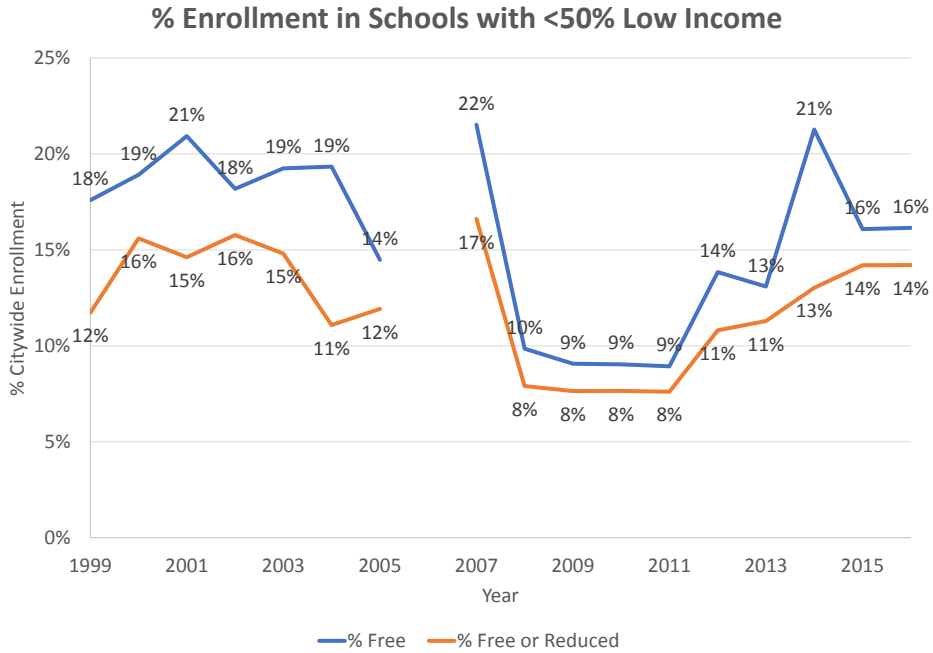
Figure 5



Data Source: NCES Common Core of Data, Public School Universe Survey: <https://nces.ed.gov/ccd/pubschuniv.asp>

But Figure 6 shows the seemingly incongruous finding that shares of children in schools where less than half of children are from low-income households have also increased in recent years. That is, while enrollments in very high poverty schools have increased, so too have enrollments in lower poverty schools. The citywide system is becoming more economically segregated, similar to the patterns found prior to Katrina.

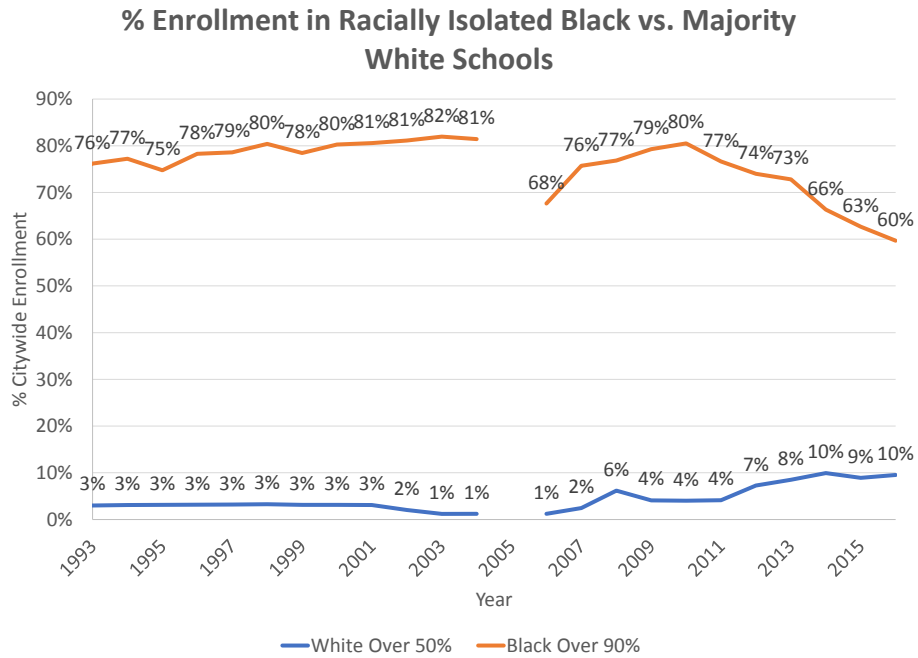
Figure 6



Data Source: NCES Common Core of Data, Public School Universe Survey: <https://nces.ed.gov/ccd/pubschuniv.asp>

Figure 7 shows the shares of children attending schools that are predominantly (>90%) black versus the shares of children attending schools that are majority white. Although proportions of children in schools that are predominantly black are declining, proportions of children attending schools that are predominantly white are increasing and already at much higher levels than they were before the storm.

Figure 7



Data Source: NCES Common Core of Data, Public School Universe Survey: <https://nces.ed.gov/ccd/pubschuniv.asp>

Peer concentration and the geographic distribution of poverty matter. And changes to peer composition cut both ways – learning in the presence of high performing peers can have positive effects, and vice versa. Katrina provided unique opportunities to studies these effects in both directions, as children from low-income New Orleans families were largely displaced to Houston area schools. Imberman, Kugler and Sarcedote (2012) explored the peer effects of children displaced from NOLA and other schools on students in Houston schools which received many of these displaced students. Imberman and colleagues found that “student achievement improves with high achieving peers and worsens with low achieving peers. Finally, an increase in the inflow of evacuees raised incumbent absenteeism and disciplinary problems in Houston's secondary schools. (p. 2048)<sup>22</sup> One might expect similar effects for those returning to NOLA schools in the years that followed, where the most disadvantaged students and families never returned, yielding substantively different though not readily observable classroom composition than before the storm.

<sup>22</sup> Imberman, S. A., Kugler, A. D., & Sacerdote, B. I. (2012). Katrina's children: Evidence on the structure of peer effects from hurricane evacuees. *American Economic Review*, 102(5), 2048-82.

## VI. CONCLUSIONS & IMPLICATIONS

To summarize, the following factors likely contribute substantially to the estimated gains in measured outcomes during the post-Katrina era in New Orleans:

1. A significant reduction in concentrated poverty. Individual and collective poverty are well understood to have substantial adverse effects on short-term and longer term student outcomes, therefore reductions in concentrated poverty result in improved outcomes;
2. A significant infusion of additional resources, where several recent studies have estimated sizeable effects of spending increases on short-term and longer term student outcomes.

Doug Harris and Matt Larsen downplay problems with the imprecision of poverty measures used in their analysis citing incomplete and insufficient data to dismiss the potential influence of demographic changes. Concentrated poverty in NOLA declined substantially after Katrina – more so than most other cities across the nation – and that change no doubt substantially influenced post-Katrina student outcome levels and gains.

Doug Harris and Matt Larsen acknowledge that similar spending increases could explain a sizeable portion of the measured outcome gains, but then provide unsatisfactory explanations for why similar spending increases without the package of reforms either wouldn't have worked, or wouldn't have happened. The latter is a particularly weak argument. Harris and Larsen offer no empirical evidence that Orleans Parish schools were in fact less efficient than other districts prior to the storm. In fact, related reports do show that much of the increase in expenditures – *because of* the reform model – was diverted toward transportation and administrative expenses (redundant administrative structures between the coordinating *Recovery District* and multiple private managers).

In education policy research the goal is to identify and precisely define a treatment or package of treatments and to evaluate the influence of those treatments on various outcome measures. Short run academic achievement outcomes, and longer term college attendance, persistence and completion rates are certainly important goals of education systems, and we should seek to identify cost-effective strategies to improve those outcomes. Unfortunately, New Orleans “reforms” are a difficult treatment to define. Harris and Larsen insist that funding increases are merely part of (if not a result of) the reforms and thus inseparable from other elements of the “reform” model. This is simply not true. While there are some identifiable elements of the “reforms” including citywide choice managed through a centralized enrollment system, the reforms essentially provide for choices among varied treatments, not any single treatment.

Simply adopting a citywide choice and enrollment management system in other settings would by no means guarantee emergence of a similar array of treatments, distribution of providers, nor would it ensure that children are similarly distributed among the more effective treatments or providers. The enrollment management system is not the treatment. The schools, their programs and their teachers are. If we accept that some of the schools that entered the NOLA reform marketplace were the cause of improved student outcomes, above and beyond resource increases and demographic changes, then it is those schools, their specific models, strategies, teachers and leaders which are deserving of closer consideration for scaling up.

Finally, public policy determinations, while considering treatment costs and commonly measured student outcome benefits, must also consider a broader array of questions regarding the public good and public interests. Some of these questions do not have easily quantifiable answers.

- We must, consider, for example, whether a system based on sorting students through individual and family choices can ever be an equitable and efficient system. Are some students still being left out? Falling through the cracks? And if so, who?
- Can we ensure that providers are available to meet all students needs and can we establish a funding model which accounts for differences in the distribution of students and their needs?<sup>23</sup> Can we resolve structural inefficiencies caused by the continuous flow of students across institutions, including efficiently allocating capital assets (school buildings, classrooms) while maintaining public stewardship over those assets?
- Can we ensure the equal protection of student, employee, parent and taxpayer rights, or will some be asked to forgo legal protections as a tradeoff for the promise of a few additional test score points? Who is most likely to be asked to forgo those protections (children from low-income households, English language learners, children with disabilities)?

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<sup>23</sup> Anecdotally, one former NOLA Charter School board member explains:

The second problem, and one of the most fatal to Cypress, is the clash of a competitive system with a fixed-price economy.

Cypress wanted to educate all children, and twenty-six per cent of its students had special needs, twice the city's average. New Orleans's funding for these students, though much improved, is still a work in progress. Each special-needs student effectively takes money away from the budget for other students. Given this, other schools "recommended" Cypress to parents of special-needs families. Cypress welcomed those children; it was its mission. But unlike, say, a startup restaurant chain that could adjust its menu or prices to attract certain customers and improve margins, Cypress is an open-admission school. It couldn't, morally or legally, choose its customers nor the revenue it could gain from each one. <https://www.newyorker.com/business/currency/what-new-orleans-tells-us-about-the-perils-of-putting-schools-on-the-free-market>

See also: Baker, B. D., Libby, K., & Wiley, K. (2015). Charter School Expansion and Within-District Equity: Confluence or Conflict?. *Education Finance and Policy*, 10(3), 423-465.

- Finally, we must consider the quality of life concerns caused by increased student travel times, more increased busing, the absence of a community school, and fewer walkable neighborhoods that result from choice systems.<sup>24</sup>

To the extent possible, the goal in public policy research is to determine whether it might be reasonable to try similar treatments in other settings, expand or *scale-up* the treatment. Doing so requires thorough consideration of policy context and confounding conditions. In summary, by many measures, things look better now in New Orleans than they did before the storm. But those appearances are not necessarily caused by structural reforms/market based strategies. New Orleans now is a new city, not comparable with New Orleans then. This new New Orleans does have a differently structured school system than before, but also has much less concentrated poverty and more resources in their schools. New Orleans is a novel city to begin with, but what happened to that city as a result of Hurricane Katrina, and all that followed, creates a context which is entirely unique and incomparable to other cities and settings across the country, thus severely limiting any policy implications which can be drawn from studies of New Orleans school reforms.

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<sup>24</sup> Baker, B. (2016). Exploring the consequences of charter school expansion in US cities. *Economic Policy Institute*, November, 30.

## Appendix A: Resource Changes<sup>25</sup>

Figure A1

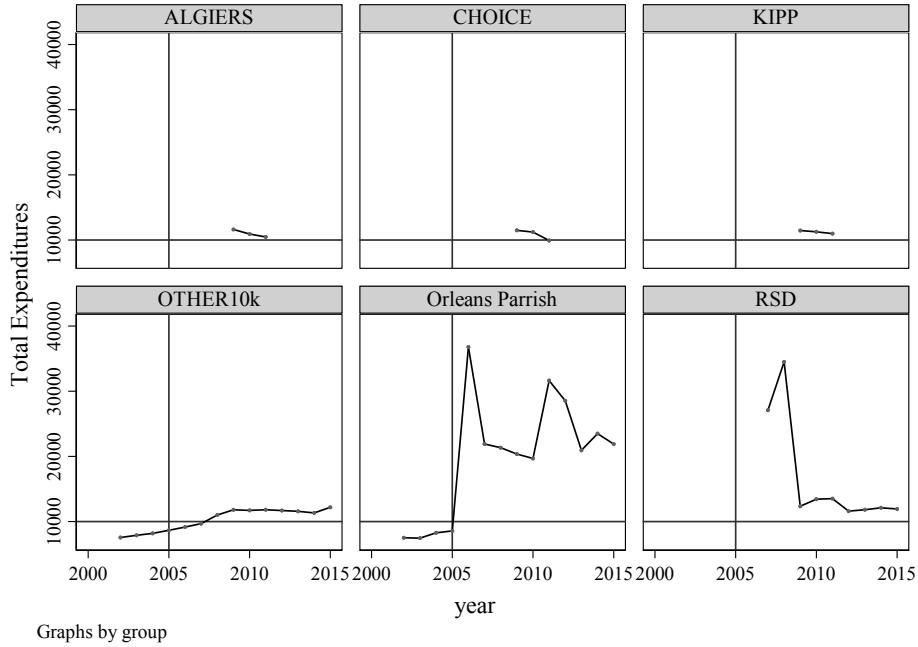
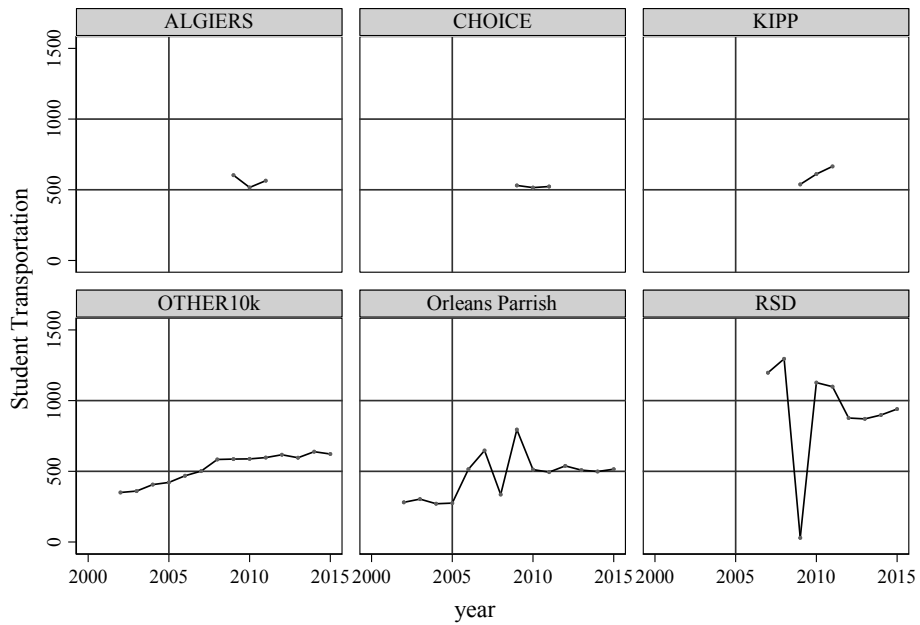


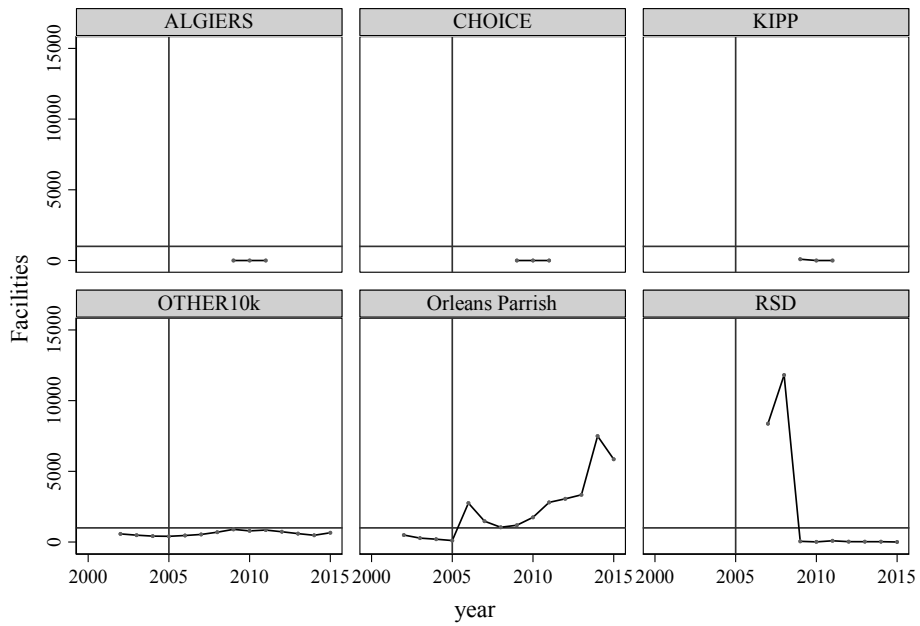
Figure A2

<sup>25</sup> <https://www.louisianabelieves.com/resources/library/fiscal-data>



Graphs by group

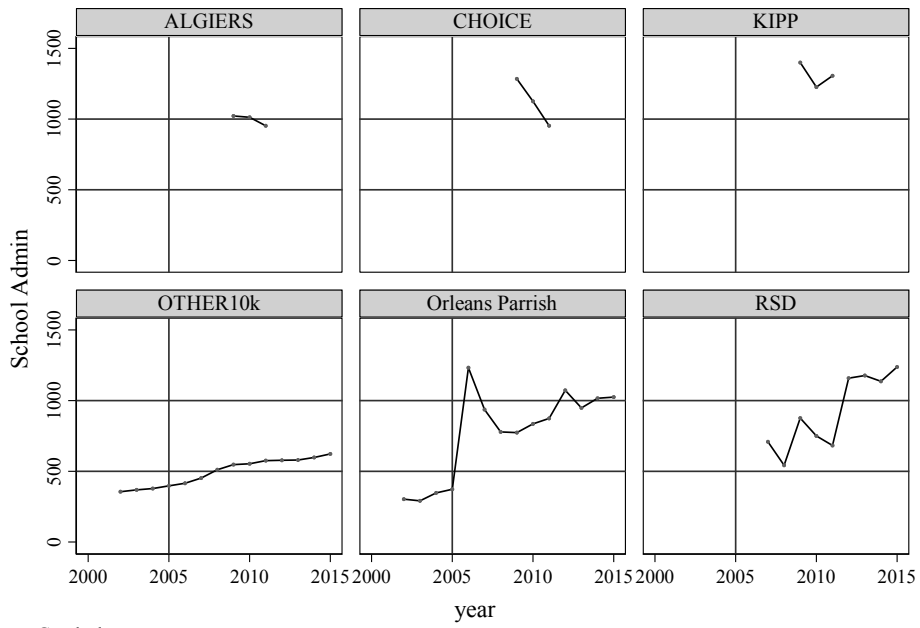
Figure A3



Graphs by group

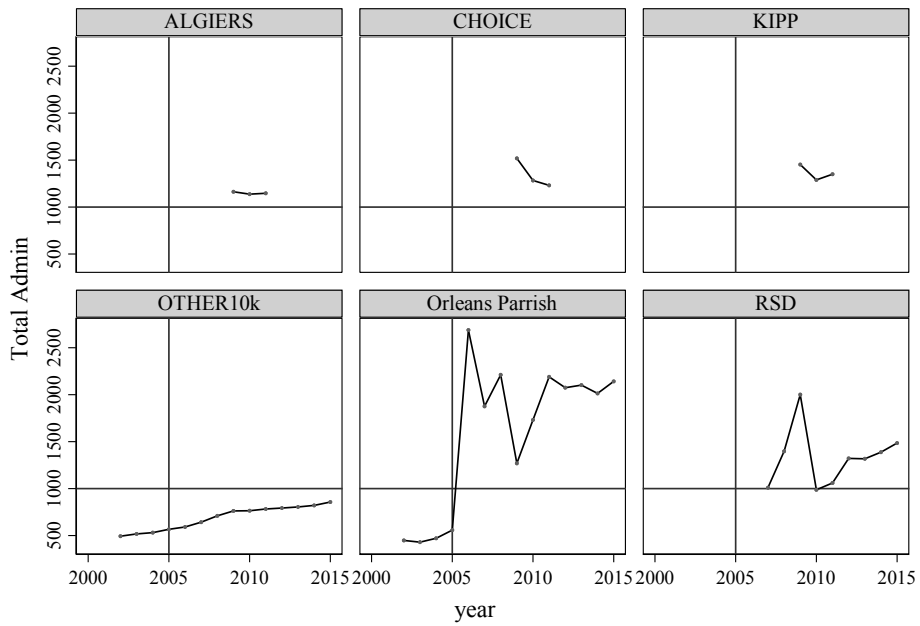
Figure A4





Graphs by group

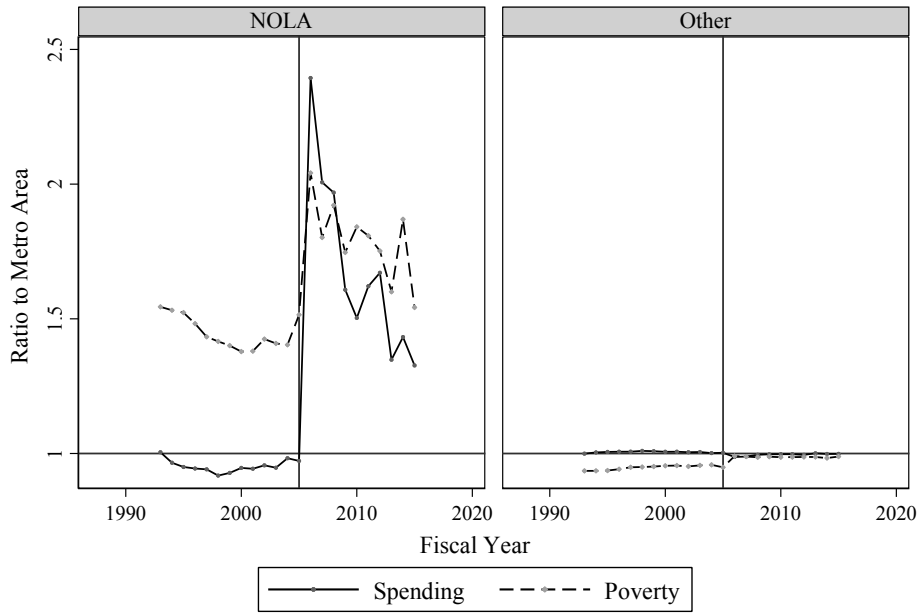
Figure A5



Graphs by group

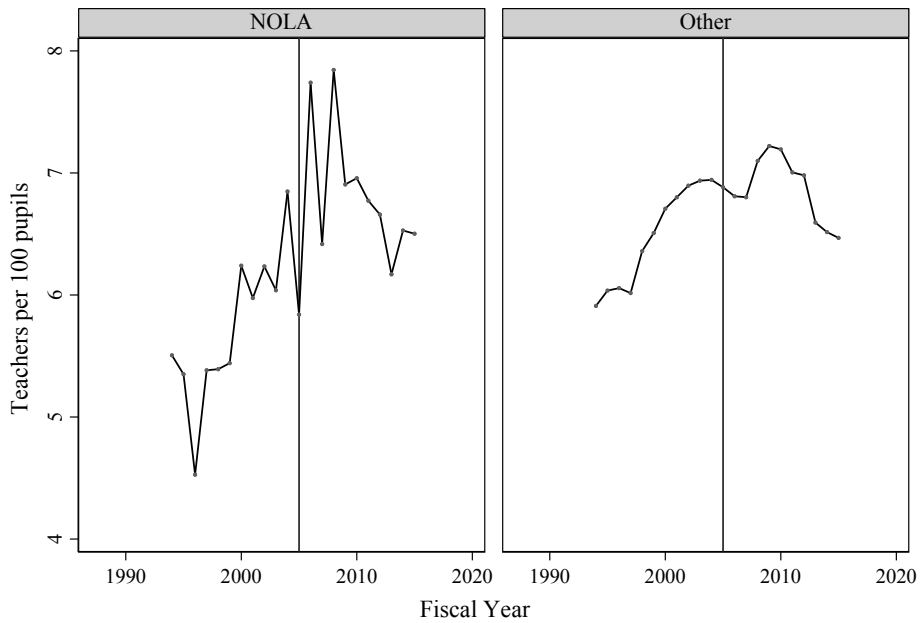
Federal Data

Figure A6



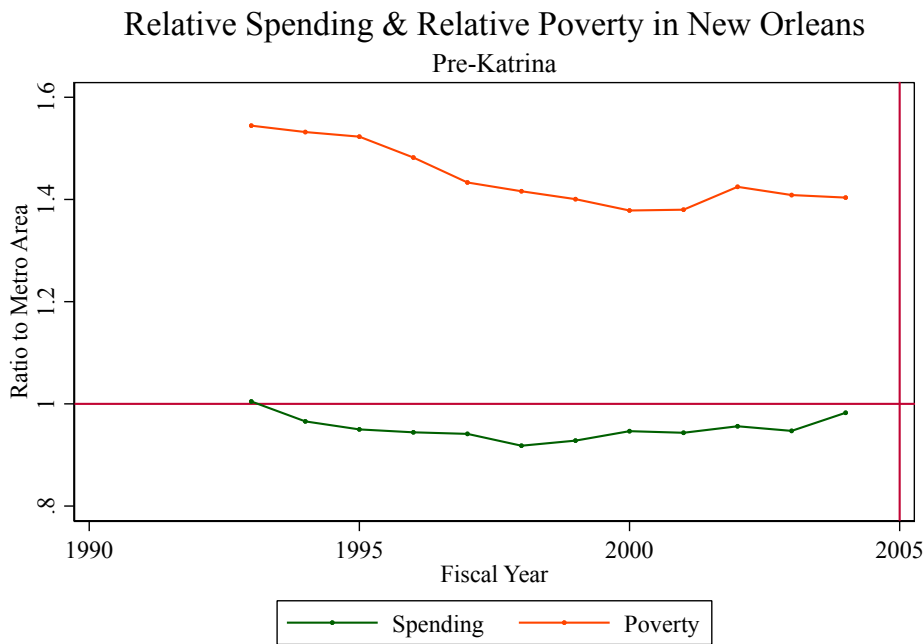
Graphs by nola

Figure A7



Graphs by nola

Figure A8



Baker, B.D., Srikanth, A., Weber, M.A. (2016). *Rutgers Graduate School of Education/Education Law Center: School Funding Fairness Data System*. Retrieved from: <http://www.schoolfundingfairness.org/data-download>