

2015

Student Achievement, Spending, and Accountability in Charter Schools, Virtual Schools, and Traditional Schools

Kimberly Osbeck
Grand Valley State University

Follow this and additional works at: <https://scholarworks.gvsu.edu/honorsprojects>



Part of the [Education Commons](#), and the [Social and Behavioral Sciences Commons](#)

ScholarWorks Citation

Osbeck, Kimberly, "Student Achievement, Spending, and Accountability in Charter Schools, Virtual Schools, and Traditional Schools" (2015). *Honors Projects*. 394.
<https://scholarworks.gvsu.edu/honorsprojects/394>

This Open Access is brought to you for free and open access by the Undergraduate Research and Creative Practice at ScholarWorks@GVSU. It has been accepted for inclusion in Honors Projects by an authorized administrator of ScholarWorks@GVSU. For more information, please contact scholarworks@gvsu.edu.

Student Achievement, Spending, and Accountability in

Charter Schools, Virtual Schools, and

Traditional Schools

Kimberly Osbeck

Grand Valley State University

Abstract

This paper explores the student achievement, spending, and accountability in charter schools and virtual schools across the nation, as well as Michigan-specific information. The articles vary in their approaches to assessing student achievement, but most utilized state assessments to compare charter and virtual schools to traditional schools and state reports to measure spending. A review of the current literature found that charter schools, on average, perform at a similar level to their traditional school counterparts. Virtual schools, specifically K-12 Inc., are performing significantly below traditional schools. In terms of spending, the current literature found that charter schools and virtual schools are not held to the same spending transparency as traditional and are spending large amounts of money on administration costs. The literature focused on stricter regulations and guidelines that require charter and virtual schools to reach specific standards regarding achievement and spending to renew charters and stay open. Fourth more, charter schools and virtual schools should be required to utilize research-based practices in each of their specific settings.

Keywords: Accountability, Achievement, charter schools, Michigan, spending, virtual schools

Student Achievement, Spending, and Accountability in Charter Schools,
Virtual Schools, and Traditional School

Introduction

Concerns and issues with charter schools and virtual schools and what they are doing (or what they are not doing) for our students has been debated, researched, and widely explored since they began cropping up in Minnesota in the early 1990s. Problems with transparency, spending, student achievement, accountability, and influences on the traditional schools have been plaguing lawmakers, lobbyists, and parents. There are many people that have unwavering beliefs in charter and virtual schools - some think charter schools and virtual schools are the future of education, while others think they are what will ruin the future of education. As lawmakers and education advocates began looking at the numbers (student achievement, spending, accountability), they began to notice some schools that were performing extremely well, and those that were performing at an alarmingly low level. But many education professionals began to ask, what about those schools in the middle - the vast majority of charter and virtual schools? How are they performing? Numerous studies have been published and media investigations have been done to determine how well alternative forms of schools have been performing in terms of spending/accountability and student achievement to help create a clearer picture of how charter schools and virtual schools are performing as a whole.

Virtual schools and charter schools in particular have been gaining a large amount of media coverage of the past decade about how they are measuring up to their traditional school counterparts, with fair reason: charter schools serviced an estimated 2.5 million students in the 2013-2014 school year (National Alliance for Public Charter Schools, 2014) and 243,000

students in full-time virtual schools in the 2012-2013 school year (NEPC, 2014). Nearly 2,750,000 students are receiving their education in virtual schools and charter schools, but the many question the integrity of the education that the students are receiving. The quality of education that is being given at the schools is a large question, but the spending and funding of charter schools and virtual schools is also under fire. Charter schools and virtual schools are getting billions of taxpayer dollars every year to service their students, but since many are run by independent management companies, the money also goes to "management operations" or, essentially, company profit. If these schools are getting billions of dollars, people began to question whether they were spending it appropriately and being used to actually educate the students they were teaching.

Legislation related to charter schools and virtual schools differ widely from state-to-state, with some states possessing effective legislation and other states, Michigan in particular, having loose and vague laws regarding charter schools and virtual schools. Since states have such widely varying regulations regarding charter and virtual schools, researchers and the media have started to question how our own state, Michigan, regulates charter schools and virtual schools and what affect this has on student performance as well as spending. If traditional schools have strict guidelines in each state that traditional schools to follow, why aren't these same guidelines, or similar guidelines, set for charter schools and virtual schools that are receiving government funding? In Michigan, charter schools alone are a \$1 billion dollar industry, so what are we doing to ensure that that money is being spent wisely and the regulations we have in place are effective in educating our students?

National Charter Schools and Student Achievement

Student achievement in charter schools varies across the nation with some charter schools performing at the same level or above traditional schools, and others performing significantly worse than traditional schools. Researchers, politicians, and parents have been conducting research in a number of schools across the nation and have found that, in general, charter schools are performing significantly worse than their traditional school counterparts in terms of student achievement. A study done by DeLuca and Hinshaw (2006) found that students across all levels (elementary, middle, and high school) in Ohio school districts performed significantly better on state-issued performance indices than charter schools in their associated districts. The difference was especially astounding at the high school level where the traditional schools' median student performance index was nearly 30% higher than their charter school counterparts. The results were similar in a meta-analysis done by Betts and Tang (2011) where the researchers found that charter schools underperform, or at best, match achievement in traditional schools.

Although charter schools have been around since the 1990s, questions have only recently been raised about their effectiveness and researchers are just beginning to publish their findings. The researchers in each study also acknowledged that results varied by state and regions within each of the states. Also, each study utilized different performance indices, based on the different states represented in their study. Each state has different assessments, so some schools that are deemed passing in Ohio would not be considered up to par in California. Regardless of state-to-state differences though, charter schools performed worse than the traditional schools that were judged on the same assessments. A nationwide review would be beneficial to find out how their charter schools are performing as a whole, but each state has different requirements and standards for charter schools to follow. However, because charter schools have different levels of freedom, transparency, and regulations as mandated by each state, the results would

essentially suggest what regulations and laws lead to more effective charter schools and not how charter schools across the nation are performing.

Due to the relative "newness" of the charter schools model some researchers have claimed that the low student achievement is due to the "new school effect." However, in a study done by Kelly and Loveless (2012) the researchers found that in the first five years of operation, charter schools significantly underperformed their traditional school counterparts of the same age. The researchers found that charter schools made significantly larger gains in achievement throughout the years, but after five years, the charter schools' achievement still did not match that of their same-age traditional school counterparts. These results were also found by Sass (2006) in Florida, where charter schools that were younger than five years old performed significantly lower than traditional schools in the same area. Charter schools have been popping up around the country at an increasing rate, which leads to a question of what is happening to the students that attend a new charter school? Students are going to brand new charter schools, which research has shown perform poorly in the first five years, so they are not receiving an education that is comparable to the traditional school that they left. According to published research, if a student enters a new charter school in late middle school or high school, the rest of their education until they graduate will be subpar compared to their peers in traditional schools.

Although the average trend suggests that charter schools consistently underperform traditional schools, a number of studies have also found bright spots in charter school performance in different states, regions, and communities around the country. In a publication from Rand (2003), the authors found that charter schools did not perform better or worse than conventional public schools in terms of API scores in California. Additionally, an article written by Stetson, discussed five charter schools around the nation that performed significantly and

profoundly better than traditional schools in the same areas. The article discussed successful traits in KIPP, YES Prep, and the other schools that may be useful for policy makers, teachers, and administration to consider when opening new charter schools or looking to improve their traditional schools. The research found that high expectations, extended time, innovative curriculum, intensive teacher training, and supportive school leadership were the keys to success in these charter schools. The research serves as a model for other charter schools and traditional schools to build on and make the best environment for students to learn.

Stetson lays out specific models of success in charter schools which provides traditional and charter schools with concrete suggestions for how to better their schools. With a list of effective school structures, it brings to questions why more charter schools don't follow the model of KIPP and YES Prep that Stetson provided if they know that they are successful. A question of money and the cost associated with extended school days and extensive training can be raised as researchers consider why charter schools continually underperform when they have successful models to follow. It would be beneficial for policymakers to look to these schools to discover what needs to be in place to ensure that our students are receiving a quality education, regardless of what type of school they are attending.

National Charter Schools and Spending

One of the most interesting aspects of charter schools is their reliance on federal and state funding while also operating under less strict standards and requirements. DeLuca and Hinshaw explored the effects of spending per student in charter schools and traditional schools on student achievement. The researchers found that there was no significant effect on money spent at the elementary and middle school levels, but played an important role in student achievement at the

high school level due to a large gap between spending and achievement between the two schools. The researchers also interestingly found that for charter schools and traditional schools in Ohio, charter schools spent less per student than traditional schools at the elementary and high school levels and about the same amount of money on students at the middle schools level. This is especially evident at the high school level where charter schools spend over \$1,800 less per student than traditional schools.

Not only are charter schools spending less per student, but they are also taking away the student money from the public schools. Many have thought that charter schools can educate for less--although, studies shows that they may be doing things with less money--they are not providing the same quality education. Additionally, charter schools don't have to pay for transportation, they don't have the same building costs, and they don't have to pay for food service. Some conversion charter schools are provided by the district at no additional cost to the charter school, which could potentially save them hundreds of thousands of dollars (Rand, 2003). Charter schools also aren't required to be completely transparent with their spending since they are considered a business, even though their funding comes from taxpayer dollars.

Taxpayers are completely unaware of how their money is being spent, which evidently is not being spent on direct instruction of students. Charter schools are generally run by management companies that, if they are for-profit companies, are making money from government funding that should be used to educate students, not increase management revenue. Policymakers need to consider new laws that require charter schools to report *all* of their spending, not just what charter schools want to report. The American public school system is a billion dollar industry that was created to educate all children, but some charter schools have

turned the system into a profit program that spends less on teachers and student instruction and more on upper management salary (Rand, 2003).

Each state has different policies and guidelines which greatly affect how the charter schools are managed and operated. In 2009 The National Association of Charter School Authorizers (NACSA), realized that great variance in charter school accountability exists. It published a guide for policymakers when structuring their regulations for charter school accountability. Currently, charter schools that repeatedly and consistently fall below the minimum performance expectations are not shut down. As these schools continually fail to educate students, their charters are renewed and they continue to make money while public schools that fall short repeatedly are subject to government intervention. The article by the NACSA, which is a charter school advocate, suggests shutting down failing schools instead of "hoping" that it will get better. The focus of the article is putting set standards in place that hold charter schools accountable without having the government completely encroach on how they are run (NACSA, 2009). Charter schools began as way to avoid the strict political laws that governed schools, but they have taken that freedom and oftentimes failed to do anything positive with it. Politicians need to start looking at data and listening to researchers, parents, and even charter school advocates that are calling for more consistent and strict accountability for charter schools nationwide.

Virtual Schools and Student Achievement

Virtual schools and classes have been becoming an integral part of all forms of schooling from elementary, through high school virtual schools, and all the way to virtual colleges and college classes. Although the number of virtual schools is growing, there have been few - if any

- data to show that these forms of schooling are effective. Researchers have explored academic performance, graduation rate, student perceptions, and school rating which have all shown that virtual schools in the nation are performing at dismal levels compared to traditional schools and classrooms. The most profound data was published by the National Education Policy Center (NEPC; Miron & Urschel, 2012) which examined data from K-12 Inc., the largest virtual school system. enrolls over 65,000 students. The study found that only 27.7% of K-12 schools met AYP in 2010-2011, while 52% of public schools met AYP. In essence, almost three quarters of all K-12 Inc. schools were failing. If 3/4 of traditional schools were failing, the nation would be up in arms. Lawmakers, educators, parents, and every other citizen would be crying for reform and cleaning out the failing schools, yet the schools in K-12 Inc. are continuing to grow and continuing to make a profit.

In another study done by NEPC in 2015, virtual schools posted failing results from 2012-2014. The study found that in 2011-2012, only 29% of virtual schools met AYP, while 52% of traditional schools met AYP. Beyond meeting AYP score, the study also found that virtual schools have only a 43.8% graduation rate, while traditional schools boast a 78.6% graduation rate in 2012-2013. Many opponents of comparisons between virtual schools and traditional schools state that test scores are not an accurate measure of achievement, but graduation rates show that students in virtual schools are not experiencing success on any front. The NEPC has repeatedly shown that virtual schools are consistently failing and need to be held more accountable, even as this current study has shown that changes are still not occurring in virtual schools.

With results that are frighteningly lower in K-12, Inc. some have blamed these astounding numbers on a higher percentage of minority groups, lower socio-economic status, or

students with disabilities in virtual schools. However, the study done by Miron and Urschel showed the opposite: virtual schools service the same percentage of African American students, less Hispanic students, less students receiving free and reduced lunch, and less students with disabilities than traditional schools. Traditional schools service a larger number of "at-risk" students, which causes many people to question what is actually happening in K-12, Inc. schools to post results that are so low.

Since performance is significantly lower in virtual schools like those operated by K-12, Inc. and others, research was conducted by Hawkins et al. (2012) explored what factors could possibly increase virtual school effectiveness. The research found that quality and frequency of feedback from instructors in the virtual courses was key to the success of the students in each of the classes. Although all of the schools in the study produced results that were worse than traditional schools, the article provided some hope in regards to how we boost the student achievement in virtual schools. The article focused on quality and frequency of instructor feedback, which can be difficult to receive without being face-to-face. The results of this study essentially state that if you have an instructor and communicate with them (which occur more often and easily in traditional face-to-face classes), grades and graduation rates will rise. This article gave some hope to virtual schools, but it also reiterated that being face-to-face and interacting with an instructor are much more crucial and beneficial.

The information from Miron and Urschel (2012), and Hawkins et al. (2012), were also matched by research done by Decker and Wang (2014). This study found that over a five-year period, virtual schools in Ohio grew rapidly compared to traditional schools, but their student achievement was over 20 points lower than traditional schools on the performance index. Even though these virtual schools continually posted lower scores, traditional school attendance

declined as virtual school attendance grew, which suggests that students may have been leaving traditional schools to attend virtual schools. Although this information was clear and profound, the authors also noted that in their study the students that are enrolled in the virtual schools are students that are already struggling in traditional schools. The researchers suggested that virtual schools were failing because the students that they are attracting are already struggling in school, so the results reflect the students that attend. Their discussion was a valid point that may attributed to students that are not experiencing success with school, so they are looking for something else. Even though this argument about why virtual schools are experiencing difficulties may be a contributing factor, it does not detract from the fact that these schools are failing, yet continuing to make a larger and larger profit each year.

Virtual Schools and Spending

Although the research has consistently shown poor student achievement in all virtual schools, corporations like K-12, Inc. and similar virtual school companies have rapidly growing spending and profits. In the article published by the NEPC (Miron and Urschel, 2012), the researchers found that K-12 Inc. spends more money on instructional purposes than traditional schools, but less on teachers. Additionally, K-12, Inc. spends a third of the money on special education than traditional schools. The researchers found that K-12 spends less on administration benefits and salaries than traditional schools, which causes many people to question where the taxpayers' money is going if it is not going directly to the costs associated with directly educating the students.

Although virtual schools have to pay for computer, programs, IT, wi-fi infrastructure, etc., they have few other costs that they must pay for. Virtual schools don't have to pay for actual

school buildings, food, transportation, or maintenance, so they have large amounts of money that seem to be unaccounted for. Although virtual schools receive federal and state funding, they are not subject to the same rules of transparency that traditional schools are subject. The researchers also discussed virtual schools' need to advertise in order to gain students, which may account for some of the money, but without complete transparency all of the money cannot be accounted for. Public schools are required to disclose exactly how they spend the money, but virtual schools, which also receive taxpayer money, are not required to report their spending.

Michigan Charter Schools and Student Achievement

Charter schools started as a simple idea: create schools in failing districts that can provide an alternative school for students to learn in creative ways. Although the idea was simple, creating legislation that governed these schools effectively and stayed to the true meaning of education - teaching students - became a compilation of vague and inconsistent rules that focus more on profit than student achievement. Each state has its own unique set of laws and guidelines that charter schools must follow, but most laws are vague and allow charter schools to ineffectively manage and educate students while making a profit. While each state has its own laws, studies have been published that indicate which specific practices and laws may lead to effective education (Stetson, 2013). One then wonders why these characteristics aren't required by every state that has charter schools. Some states have specific and effective legislation in place for charter schools to follow while others provide short, vague, and ineffective laws that contribute to the growing number of failing charter schools in these states.

In a 2014 study done by NACSA (2014), the researchers compared charter school legislation in each of the states and found that our state, Michigan, ranked dead last in the nation

for states that allow many authorizers of charter schools. The article outlined policy provisions that are best practice for charter school legislation and Michigan received 3 out of 27 points for successful policies. In terms of school accountability, Michigan received 2 out of 15 points and fails to close schools that are failing, but allows more charters for those authorizers. Furthermore, Michigan received 1 out of 12 points for authorizer accountability by not requiring charter schools to provide quality standards for charter schools, provide reports on performance, evaluate authorizers, or sanction authorizers that are failing. Essentially, on all accounts in this report, Michigan legislation is failing miserably to provide effective policies that hold charter schools accountable for students' performance or spending of taxpayer money.

With ineffective and failing legislative policies regarding charter schools, it is not surprising that research has found the majority of Michigan charter schools to be failing in terms of student achievement. In a recent publication by CREDO (2013), Michigan charter schools on average showed student achievement that was significantly lower than student achievement in similar traditional schools in Michigan. The report, which some accuse of being "advocacy research" for charter schools focuses on the growth that charter schools in Michigan have seen, which are greater than traditional schools. While the report states that charter schools experience more growth, the report only briefly mentions that the majority of the schools are still falling significantly below traditional schools. CREDO focuses on the large growth, but their information also shows that in math, 84% of charter schools fall below the 50th percentile in achievement and 80% fell below the 50th percentile in reading. Charter schools posted vastly different achievement scores as well, with some schools in the 1st percentile and others in the 95th percentile. Traditional schools, however, showed scores with a much lower rate of variance. With the loose, vague regulations that guide charter schools it is to be expected that a large

variance would occur. There is a large amount of room for charter schools to interpret the regulations and they can choose to do what is best for the students, or they can choose to do what makes the most profit. The authors presented their research as a movement towards charter schools based on growth, but failed to acknowledge that even though the charter schools are showing growth, they are still failing to meet the achievement levels that traditional schools are showing.

Additional research on Michigan charter schools has shown similar results that were found by the CREDO researchers. Wolfram (2008) also found that while time spent in charter schools posted a positive effect on test scores, the test scores were still significantly below traditional school test scores. These charter schools are boasting large gains in achievement but are still falling behind, which draws attention to the "new schools effect" in charter schools where student scores are remarkably lower than traditional schools and even after huge gains, they are still falling short. If a student enters a new charter school, their test scores fall the charter schools attempts to maneuver the new system, especially in Michigan where the policies and guidelines fail to ensure that charter schools are started by effective authorizers.

Since Michigan has vague and lenient policies for charter schools, a number of different authorizers can open charter schools, including for-profit and not-for-profit authorizers. Charter schools in Michigan post a wide variety of test scores, which some contribute to the role of money and the possible profit that charter schools pose. A study done by Hill and Welsch (2009) found that there was no statistical difference between schools that were run by for-profit and not-for-profit charter authorizers in Michigan. The researchers did find, however, that small for-profit companies in Michigan did have lower scores than not-for-profit schools, but the results overall varied widely in each group of charter schools. The study provides an insight to the

failing nature of charter schools around Michigan, regardless of their management companies. Michigan's legislation allows for schools to interpret and contributes the large amount of variability; it allows charter schools to be in the first percentile without closing, while also allowing charter schools to have the freedom that enables them to score in the 95th percentile. Firmer regulations that hold charter schools to higher standards could encourage and facilitate a push for higher achievement.

Michigan Charter Schools and Spending

Michigan charter school spending is similar to student achievement in terms of legislation and success compared to traditional schools. Michigan legislation requires no report of spending, no transparency requirements, and no accountability for charter schools that are taking money but not producing results. After an investigation by the *Detroit Free Press*, national news was turned toward Michigan and the \$1 billion industry that charter schools have become while simultaneously reporting some of the lowest test scores. The investigation found questionable bonuses and expenses from individuals in charter school administration, even though the money used by charter schools is from the government and the taxpayers. According to Michigan's vague laws, charter school management companies are only required to report "school-related" spending and not "business-related" spending, even though they should be the same thing.

The increased spending and decreased student success should lead to more closures in Michigan charter schools, but more charters are being renewed or created every year. Hope Academy in Detroit for example, ranks in the 1st percentile and had their charter renewed by Eastern Michigan University. Management companies are seeking profit, not progress, so they are creating more charter schools that continuously fail. The NACSA found significant issues

with Michigan's charter school policies and made recommendations for the future of Michigan charter school policy. These recommendations focused largely on accountability for charter schools that were failing, specifically disbanding or closing schools that were failing, instead of renewing charters and continuing to feed the profit-driven management companies.

Implications and Conclusion

Research from across the nation has shown that charter schools and virtual schools are not providing the impressive achievement scores that they had hoped for. Charter schools and virtual schools have both consistently shown that on average they are not performing any better, and oftentimes worse, than their traditional schools counterparts. Virtual schools, specifically K-12 Inc., are showing that a large majority of their students are not meeting the standards and are receiving an education that is not adequately preparing them to be productive members of society. Not only are students not meeting state and national proficiency, they are also not meeting graduation requirements and are posting graduation rates that are almost half of those at traditional schools. Virtual schools across the nation, regardless of state, are failing to educate our students.

Charter schools, unfortunately, are displaying unpromising results that are similar to virtual schools. Research from around the country has shown that on average, students are performing at the same level, or below traditional schools. Furthermore, charter schools are spending large amounts of money that they are failing to report and, in some cases, refusing to report. Michigan charter schools in particular are stating that the "business" side of the charter schools do not have to be reported. If charter schools were truly in the "business" of educating students, they should have to report all of their spending, especially since their spending comes

directly from taxpayers' money. The student achievement and spending at charter schools are not lining up with the results that everyone expected.

From reviewing the literature, three recommendations can be suggested to reform the current problems with charter schools and virtual schools, specifically in Michigan in terms of educating students and creating regulations governing them. First, charter schools and virtual schools need to be held accountable for their student achievement and be subject to consequences if they do not meet specific criteria. Second, virtual schools and charter schools should be required to have complete transparency in their spending, regardless of whether they have a "business" side, since they are operating from taxpayer money. Finally, virtual school and charter schools should utilize best practices to ensure that they are appropriately and properly educating their students.

Research done on state accountability has shown that Michigan is severely lacking in the standards that they hold for charter schools. The article done by NACSA showed that Michigan lacks regulations regarding charter renewals as well as default closures. As charter schools fail, Michigan is currently continuing to renew charters and providing no consequences for the unsuccessful education they are providing. Other states, like Washington, Texas, and Indiana have strict and specific guidelines regarding charter school operations and report better student achievement scores, which may be due to the guidelines. Michigan, and other states, need to implement laws that hold charter schools more accountable for their students' education and prove that they are focusing on providing an education and not just making a profit.

The second recommendation to increase achievement and transparency in charter schools and virtual schools is to require virtual schools and charter schools to report all of their spending.

Charter schools and virtual schools receive the money per student for each student that comes to their school, which draws money from traditional school and originates from the taxpayers. If the money is coming from taxpayers, charter schools and virtual schools need to be completely transparent just like traditional schools are required to be. Charter schools and virtual schools need transparency to ensure that the money is actually being spent on educating students and not just moving into the profit pool for the company and executives.

The final recommendation is based on the teaching methods and school culture in charter schools and virtual schools. The article by Stetson listed several systems and procedures that are present in successful charter schools, including longer school days and a positive climate, that other charter schools can base their structure off of. Management companies should build off of these existing models and strive to create the best place for students to learn and grow.

Additionally, Hawkins et al. discussed ways to increase success in charter schools, which rely heavily on the interactions between students and instructors. Instructors and management companies need to make quality instructor feedback mandatory in virtual schools and courses if they are truly committed to successful students.

These recommendations serve as a starting point for charter schools and virtual schools to build off of in an attempt to truly revitalize and reform our public education system. Educators, parents, and lawmakers all agree that our current education system is broken - from charter schools and virtual schools to traditional schools. Our students are not succeeding and instead of making changes to the currently struggling system, charter schools cropped up and offered a choice, or "way out", of failing traditional schools. Charter schools and virtual schools are doing nothing to better the current state of traditional schools, but instead are pulling money, resources, and students to their own buildings where the education is oftentimes worse. We need to take the

lessons from research and our successful attempts at alternative schools to increase the success of all forms of education.

References

- Center for Research on Education Outcomes. (2013). Charter school performance in Michigan. Stanford, CA: CREDO. Retrieved from http://credo.stanford.edu/pdfs/MI_report_2012_FINAL_1_11_2013_no_watermark.pdf
- De Luca, B. M., & Hinshaw, S. (2006). Comparing academic achievement in charter schools and public schools: The role of money. *Journal of Educational Research & Policy Studies*, 6(1), 67-85.
- Hawkins, A., Graham, C. R., Sudweeks, R. R., & Barbour, M. K (2013). Academic performance, course completion rates, and student perception of the quality and frequency of interaction in a virtual high school. *Distance Education*, 34(1), 64-83. doi:10.1080/01587919.2013.770430
- Hill, C. D., & Welsch, D. M. (2009). For-profit versus not-for-profit charter schools: an examination of Michigan student test scores. *Education Economics*, 17(2), 147-166. doi:10.1080/09645290801977017
- Kelly, A. P., & Loveless, T. (2012). Comparing new school effects in charter and traditional public schools. *American Journal of Education*, 11(8), 427-453.
- Miron, G., & Urschel, J. L. (2012). Understanding and improving full-time virtual schools: A study of school characteristics, school finance, and school performance in schools operated by K12 Inc. Boulder, CO: National Education Policy Center.

- Miron, G., Gulosino, C., & Horvitz, B. (2014). Virtual schools in the U.S. 2014: Politics, performance, policy, and research evidence. Boulder, CO: National Education Policy Center. Retrieved from <http://nepc.colorado.edu/files/virtual-2014-3-inventory-final.pdf>
- Molnar, A. (Ed.); Huerta, L., Shafer, S. R., Barbour, M.K., Miron, G., Gulosino, C. (2015). Virtual schools in the U.S. 2015: Politics, performance, policy, and research evidence. Boulder, CO: National Education Policy Center. Retrieved from <http://nepc.colorado.edu/publication/virtual-schools-annual-2015>
- National Alliance for Public Charter Schools. (2014). Details from the dashboard. Washington, D.C.: National Alliance for Public Charter Schools. Retrieved from <http://www.publiccharters.org/wp-content/uploads/2014/02/New-and-Closed-Report-February-20141.pdf>
- National Association of Charter School Authorizers. (2009). Charter school performance accountability. Chicago, IL: National Association of Charter School Authorizers.
- National Association of Charter School Authorizers (2014). On the road to better accountability: an analysis of state charter school policies. Chicago: IL. National Association of Charter School Authorizers. Retrieved from http://www.qualitycharters.org/assets/files/Documents/Policy/NACSA_014_SLR_FINAL_1-15-15.pdf
- Rand Education. (2003). Charter school operations and performance: Evidence from California. Santa Monica, CA: Rand.

- Sass, T. R. (2006). Charter schools and student achievement in Florida. *Education Finance and Policy*, 1(1), 91-122. Retrieved from <http://search.proquest.com.ezproxy.gvsu.edu/docview/815955879?accountid=39473>
- Stetson, R. (2013). Common traits of successful US charter schools. *Childhood Education*, 89(2), 70-75. 10.1080/00094056.2013.772853
- Wang, Y., & Decker, J. (2014). Can virtual schools thrive in the real world?. *Techtrends: Linking Research & Practice To Improve Learning*, 58(6), 57-62. doi:10.1007/s11528-014-0804z
- Wolfram, G. (2008). Effect of Time Spent in Charter Schools on Student Test Scores: A Michigan Case Study. *Journal Of School Choice*, 2(1), 20-46. doi:10.1080/15582150802007341