



Equity and Access in Charter Schools: Identifying Issues and Solutions

David T. Marshall

Virginia Commonwealth University
United States

Citation: Marshall, D. T. (2017). Equity and access in charter schools: Identifying issues and solutions. *Education Policy Analysis Archives*, 25(83). <http://dx.doi.org/10.14507/epaa.25.2745>

Abstract: School choice exists in American public schooling, even where official school choice policy is absent. Parents with means can elect to live in neighborhoods zoned for desirable schools, whereas parents without means are locked out of that opportunity. In their ideal, charter schools have the ability to expand access to desirable schools to families who previously had little choice in their children's schools. However, issues of equity and access often limit options for the very families who are seeking them. This paper examines four such issues in charter schools—school diversity, access to transportation, application processes, and access to quality teachers as equity and access. The issues are problematized and case studies that have worked towards resolving these issues are examined.

Keywords: Charter schools; education reform; school choice

Equidad y acceso en escuelas carácter: Identificación de problemas y soluciones

Resumen: La elección de la escuela existe en la educación pública en los Estados Unidos, incluso cuando la política oficial de elección escolar está ausente. Los padres con medios pueden elegir vivir en vecindarios zonificados para escuelas deseables, mientras que los padres sin medios son bloqueados de esa oportunidad. En su ideal, las escuelas carácter tienen la capacidad de ampliar el

acceso a las escuelas deseables a las familias que anteriormente tenían poca opción en las escuelas de sus hijos. Sin embargo, las cuestiones de equidad y acceso a menudo limitan las opciones para las mismas familias que las buscan. Este documento examina cuatro de estos temas en las escuelas charter-diversidad escolar, el acceso al transporte, los procesos de solicitud, y el acceso a los docentes de calidad como la equidad y el acceso. Los problemas son problematizados y se examinan los estudios de casos que han trabajado para resolver estos problemas.

Keywords: Escuelas charter; Reforma educativa; Elección de escuela

Equidade e acesso em escolas charter: Identificar problemas e soluções

Resumo: A escolha da escola existe na educação pública nos Estados Unidos, mesmo quando a política oficial de escolha da escola está ausente. Significa que os pais podem optar por viver em bairros zoneadas para escolas desejáveis, enquanto os pais sem meios são bloqueados essa oportunidade. Em seu ideal, as escolas charter têm a capacidade de expandir o acesso à desejável para as famílias que anteriormente tinham pouca escolha nas escolas para seus filhos escolas. No entanto, questões de equidade e acesso muitas vezes limitam as opções para famílias que as procuram. Este artigo examina quatro dessas questões nas escolas diversidade Carta-escola, acesso a transporte, processos de aplicação e acesso a professores de qualidade como a equidade eo acesso. Os problemas são problematizados e estudos de caso que têm trabalhado para resolver estes problemas são discutidos.

Palavras-chave: Escolas charter; Reforma educacional; Escolha da escola

Equity and Access in Charter Schools: Identifying Issues and Solutions

Since the release of *A Nation at Risk*, a number of initiatives have been implemented as part of an effort to improve public education in America. Over the past 25 years, public charter schools have emerged as a popular reform. Initially envisioned as independent public schools that would serve as laboratories of education innovation (Ravitch, 2010), the first charter schools were authorized in Minnesota in 1991 (Nathan, 1996). Charter schools receive public money and do not charge tuition, and the laws governing charter schools vary from state to state (Bulkley & Wohlstetter, 2004). In general, as independent schools charter schools are granted autonomy from school districts and are afforded the ability to make local decisions that make sense for their particular populations of students, teachers, and parents. In exchange for this increased autonomy, they agree to greater accountability. In theory, charter schools that perform would be allowed to persist; those that did not would be closed. It is worth noting that although poor-performing charter schools are closed more often than are poor-performing traditional public schools; however, for a plethora of reasons, many poor-performing charter schools remain open (Osborne, 2012).

School choice already exists in America, even where official choice policies are absent. The invisible lines that separate city and county and the catchment area for one school or another greatly influence where many parents choose to live (Eaton, 2007; Grant, 2011; Ryan, 2010; Wells, 2009). Parents with means can afford to buy into neighborhoods that are zoned for the schools they wish their children to attend, effectively choosing their schools. Those with means who elect to live in neighborhoods that have schools they deem to be undesirable can choose to pay for private schools. In this paradigm, the parents who are not allowed to choose are those without means – those who can neither afford to buy or rent in a neighborhood with “better” public schools nor afford to pay

private tuition¹. Public charter schools have been presented as one way to provide greater access to school choice to parents, especially those with fewer means. As of 2017, over 6,800 charter schools educate almost three million students in 43 states and the District of Columbia (National Alliance for Public Charter Schools, 2017). Although some charter schools are fulfilling the mission of providing expanded educational opportunities for students, this has not universally been the case. Even where charter schools have shown promise, some observers have raised concerns related to issues of access and equity about these schools of choice (Darling-Hammond & Montgomery, 2008). This paper takes a solutions-oriented approach to four such issues – student diversity, access to transportation, application processes, and access to experienced teachers – by first outlining the concerns and then identifying solutions and using case studies to identify places where the issues have been addressed.

Problematizing Charter Schools

Two main theoretical lines of thought – rational choice theory (Boyd, 1994; Chubb & Moe, 1990; Smith, 2003) and democratic schooling (Gray & Chanoff, 1986; Sizer & Wood, 2008) – frame many of the arguments for the existence of school choice. The primary assumption of rational choice theory is that individuals undertake cost-benefit analyses when making decisions to ensure that the outcome is that which is most favorable for the individual (Boyd, 1994). Proponents of this theory suggest that consumers will always make decisions that they deem beneficial to themselves, and believe that the existence of an educational marketplace of options would force traditional public schools (TPS) to improve and compete with new options like charter schools or lose market share (Chubb & Moe, 1990; Friedman, 1997). This theory relies on the idea that schools of choice will be free to innovate in ways the current system is slow to allow (Friedman, 1997, 2002; Ravitch, 2010; Sizer & Wood, 2008), and with the exception of those with a vested interest in the status quo system of TPS, everyone – especially parents and students – will come out ahead (Friedman, 1997). However, an often unarticulated assumption in this theory is that consumers will always have the information needed to make these decisions, and that they will have the ability to access the options they would like to choose. Critics of rational choice theory note that while public school choice options such as charter schools have the potential to promote equity and access, they often fall short of accomplishing these goals (Darling-Hammond & Montgomery, 2008; Ravitch, 2013; Sizer & Wood, 2008).

A second school of thought articulates a vision of school choice that is driven not by markets, but by how local and community control of schooling can be more responsive to the needs of all parents and students (Darling-Hammond & Montgomery, 2008; Gray & Chanoff, 1986; Sizer & Wood, 2008). Similar to proponents of rational choice theory, democratic schooling theorists cite the burden of a cumbersome bureaucracy as a roadblock to having schools that are locally responsive and innovative (Darling-Hammond & Montgomery, 2008). When bureaucracies grow too large, parents have less access to address grievances with the system and schools can tend to skew towards standardization, away from having the ability to make the local decisions necessary to best educate children (Darling-Hammond & Montgomery, 2008). Proponents of this view note that school choice policies do not exist in a vacuum, and note that *equity* and *access* are values that all forms of public schooling should promote (i.e. Sizer & Wood, 2008). Democratic schooling

¹ “Better” could mean different things for different families. Some parents might value strong discipline in a school; others might value a particular math curriculum, and so on.

theorists are often critical of school choice policies that do not attend to these values. Although both intellectual paths can lead to the same place, they are at times fundamentally at odds with one another. Rational choice theorists posit that it is naïve to assume that democratic reforms would happen outside of the pressures of market forces (Chubb & Moe, 1990). Democratic schooling theorists would posit that if equity and access are not available to all, then it would be impossible to engage in rational choice because markets tend to favor consumers with more resources.

Scholarship that is critical of reforms is important, because before an issue can be resolved, it must be named. While some of the research on charter schools has been a catalyst to improve student outcomes, much of it is firmly planted in the field of problematization. This latter literature does an excellent job of identifying negative facets of charter schools, yet does little to advance solutions to the problems that are highlighted.

In many ways, literature critical of charter schools has improved future research on charter schools. One example of this can be found in work that was done by Gleason, Tuttle, Gil, Nichols-Barrer, and Teh (2014) investigating whether students in the Knowledge Is Power Program (KIPP) network of charter schools outperformed their peers in TPS on standardized tests. Just under 6,000 KIPP students drawn from 22 schools were matched with TPS counterparts using propensity score matching for comparison. A common critique in the literature of KIPP schools, and charter schools in general, is that they are populated by the most driven and least disruptive students as a result of their admission and attrition policies (Darling-Hammond & Montgomery, 2008; West, Ingram, & Hind, 2006). These critics suggest that comparisons made between these schools and TPS are misleading. Gleason et al. addressed this critique in their study by keeping any students who left KIPP schools in the KIPP sample for comparison, thus possibly underestimating KIPP's effects on test scores. KIPP students performed statistically significantly better than TPS match students in both reading and math, when controlling for race, gender, special education status, grade repetition, and ESOL status. As a result of prior work that was critical of KIPP and charter school admission and attrition policies, Gleason et al. conducted a much stronger study than they might have in the absence of this work.

A caveat that must be noted is that charter schools and TPS are not monolithic entities, even though they are often discussed as such in the literature and at professional conferences. By their very design, charter schools are intended to be different from one another. There are exemplary charter schools, and those in great need of improvement. The same is true for schools overseen by traditional public school districts. This paper explores ways in which systems have addressed access and equity issues, but it is important to bear in mind that within these systems there are likely some schools that are performing better or worse on each of these issues. The issues of within-district student diversity, transportation, application processes, and teacher quality are probed and case studies that were found in the review of the literature are explored as possible solutions for the four issues. Additional case studies that are employing similar solutions are discussed as areas of opportunity for future empirical work.

Effects on Within-District Diversity

One area of initial concern surrounding charter schools was that of student diversity. Some charter detractors were correctly concerned that new public schools of choice would become populated with mostly White and economically privileged students and fail to serve the students they were advertised to serve (Garcia & Garcia, 1996; Hill & Lake, 2010). This was certainly a possibility; it was reasonable to conceive of a situation where the better educated, better informed, better connected, and overall more privileged families would be the ones who would take advantage of charter schools, especially in urban settings. Frankenberg and Siegel-Hawley (2012) explored

contemporary patterns of segregation and population patterns and they found that while charter schools in the Western part of the United States were likely to have greater White populations than surrounding TPS, charters in the Midwest and Northeast tend to have greater levels of segregation, especially for African-American students. In one of the early studies examining race and charter enrollment, Arizona charter schools were found to exhibit higher levels of segregation than TPS (Cobb & Glass, 1999). However, when the same data were reanalyzed by Milliman, Maranto, and Gresham (2004), they found that new charter schools – those that were not converted TPS – to be no more segregated than their TPS counterparts. These authors also note that Cobb and Glass (1999) fail to discuss patterns of segregation that take place inside of schools, a phenomenon that is probably more likely in TPS than in charters when school size and mission are taken into consideration. Stein (2015) examined public school choice and race in Indianapolis and found that White and African American students who switched schools from TPS to charters were more likely to enroll in a charter school that also enrolled higher concentrations of students of their own race. In this setting, the ability to select one's school led to increased homogeneity in charter schools.

The arguments critical of charter schools on the issue of racial diversity clearly shifted from a concern of there being a disproportionate number of White students in charter schools to that of there being a disproportionate number of African-American students in the schools. Frankenberg and Siegel-Hawley (2012) have noted that this is in large part due to where charter schools are founded. Charter schools that are established in locales with highly segregated and predominantly African American public school populations are likely to attract student populations of their own which mirror this. Advocates of charter schools would suggest that the schools are opening where the need is greatest (Moskowitz, 2015). As of 2008, when compared with TPS, charter schools were almost 40 percent more likely to be high-poverty schools, almost twice as likely to exist in urban settings, and more than twice as likely to have a student population that was at least 90 percent African American (Kahlenberg & Potter, 2012). An outgrowth and perhaps an unintentional consequence of this has been that when school choice that takes place in districts that are already highly segregated equates to schools of choice being segregated as well. That concern has been a catalyst for a new group of schools that have diversity at the heart of their mission.

In 2014, the National Coalition for Diverse Charter Schools was launched at the National Charter School Conference in Las Vegas, Nevada (Rubenstein, 2014). The growing network includes charter schools in 15 states and the District of Columbia and champions the notion that diverse charters can produce positive academic and social outcomes for students, as well as strengthen the communities in which they are situated (National Coalition of Diverse Charter Schools, n.d.). For example, Patrick Henry Charter School is the only charter school in Richmond, Virginia (Patrick Henry School of Science and Arts, n.d.-a), the former capitol city of the Confederacy, and is the only public school in the city whose racial makeup approximates that of the city's population (Senechal, 2014). This was accomplished by establishing enrollment and recruitment policies aimed at attracting and enrolling a diverse student population at the school's founding (Patrick Henry School of Sciences and Arts, n.d.-b). The school's charter requires the school to engage in efforts to ensure a diverse staff and student population. One way this is achieved is through the creation of a community outreach team whose efforts are evaluated in terms of student enrollment and staff employment applications. Students who attend schools that are diverse are less likely to engage in stereotyping of students who are different from them when they are learning next to them on a daily basis (Kahlenberg & Potter, 2012). And while diversity in and of itself is a value that many parents seek in a school of choice, there is a line of work that also suggests that students who learn in a diverse environment also have academic and social benefits (Grant, 2011; Ryan, 2010; Siegel-Hawley, 2014). Additional empirical work will be required to examine whether these intentionally

diverse charter schools maintain their levels of diversity over time. Student outcomes and dispositions towards diversity in these settings are also ripe for exploration.

Transportation and Charter Schools

One barrier to school choice for families is a lack of access to transportation options. Access to free and public transportation is vital for ensuring that choice is expanded in an equitable manner (DeArmond, Jochim, & Lake, 2014; Lake, Jochim, & DeArmond, 2015; Schanzenbach, Mumford, & Bauer, 2016; Siegel-Hawley, 2014). The mere existence of choice options does little for families who are not able to provide their own transportation for their children every day. Welner (2013) suggests that a lack of access to transportation makes it difficult for lower-income families to enroll their children in schools of choice, including charter schools. Taken together, transportation is an important component of ensuring equitable access to quality public education for all students. Denver emerges from the literature as a case study where this issue has been addressed.

The Success Express bus shuttle program was launched in Denver in 2012 (Ely & Teske, 2014). The program targeted two regions of the city that were growing in population, yet had the greatest opportunity gaps in terms of accessing transportation to the city's public schools. Instead of providing traditional bus service, where students were picked up and taken to school and dropped off at home at the same time each day, the express routes ran a continuous loop for each of the regions. Outside of reducing transportation costs, this also accommodated schools with different start and end times. Charter schools were initially hesitant to enroll due to the funding mechanism; schools were charged for the service based on their enrollments, not the actual number of users. However, by the second year of implementation all of the charter schools in these two regions were fully participating. Overall, schools in these two regions saw improved student attendance rates and increased access to schools of choice.

Another location where access to transportation has been addressed is Philadelphia. The School District of Philadelphia allocates \$92 million annually to provide universal transportation to students in the city (Pennington, 2014). All students, regardless of whether they attend TPS, school choice options within the School District of Philadelphia (i.e. open enrollment schools and magnet schools), Philadelphia charter schools, or Archdiocese of Philadelphia schools, have access to free transportation to and from school (School District of Philadelphia, n.d.). All students through grade 6, and all special education students are eligible for school bus services. Students enrolled in grades 7 through 12 are eligible for a student public transportation pass at no cost. The School District is reimbursed by the Archdiocese and keeps a portion of Philadelphia charter schools' per pupil funding to pay for their transportation. Although Philadelphia's system does come with a price tag, providing transportation to all city students fulfills a prerequisite requirement for an equitable system of school choice to exist. It is also worth noting that Philadelphia's charter schools are far more likely to be located near the city's subway and trolley lines than the open enrollment and magnet schools in the school district, making them more easily accessible with to students with shorter commutes (Scott & Marshall, 2017).

New York City has a universal system of transportation for all public school students (New York City Department of Education Office of Pupil Transportation [OPT], n.d.). Students in kindergarten through second grade are eligible for school bus transportation or free public transportation if they live 0.5 miles or more away from their school. Similar to Philadelphia, access to transportation provides the possibility of equity and access to charter schools to exist. Larger cities that already have well-developed public transportation systems could consider replicating these models. This becomes an economies of scale issue (Levin, 2012). It would be quite costly for an individual school to provide transportation for its students, especially if students were drawn from

all over the municipality. Charter schools partnering with traditional public school districts, similar to New York and Philadelphia, are the best way to bend the cost curve towards feasibility and affordability.

But what if a municipality lacks a well-developed public transportation system? This is often the case for smaller-sized cities, especially those that are less densely populated and this is an area of opportunity. Jacksonville, Florida, is one example of a mid-sized city that offers transportation for charter school students (Duval County Public Schools, 2016a). Jacksonville is situated within Duval County, and the school district encompasses the entire county, including the suburbs. County policy requires all public schools to provide transportation for students who live 1.5 miles or further from the school they attend (Duval County Public Schools, 2016b). However, this remains possible due to the scale of the school district. Duval County Public Schools serve well over 100,000 students. Smaller localities that serve fewer students might still face some challenges in providing similar transportation guarantees for their students. Vincent et al.'s (2014) exploration of public school transportation systems notes that these systems often require a large enough pool of participants to be viable. Additional research is warranted to study the New York, Philadelphia, and Jacksonville systems, as well as to explore how access to transportation can be achieved in more sparsely populated areas.

Charter School Applications

Before charter schools, parents enrolled their children in the school for which they were zoned. If intradistrict choice options existed, they could go to a central office and apply for admission into those schools. However, since charter schools operate as individual entities, applying to a charter school can become much more complicated. A common theoretical case made for charter schools and school choice relies on the notion that parents can and will rationally choose a school that best suits their children. However, if a parent is either not aware of the options that exist or does not know how to apply to get his or her children enrolled in the various schooling options, this presents a barrier to entry and becomes an access issue. Economists refer to this as the principal of (im)perfect information (Rothschild, 1973). When perfect information exists in a marketplace, all producers and consumers have the requisite knowledge needed to engage in sound decision-making. In the case of school choice, parents who are unaware of some of their options have imperfect information. Some individual charter schools and charter school networks put a substantial amount of effort into making sure that local parents are aware of their schools (Jabbar, 2015; Mathews, 2009), however for equity to be achieved in this area a more systemic approach is necessary. Siegel-Hawley (2014) notes that without policies to ensure extensive outreach, public choice options can perpetuate racial and socioeconomic stratification, which can run counter to the goal of school choice policies – that of ensuring that choice is available to all, not simply those with means. Even if a parent is aware of every public school option that exists, the process of completing multiple applications that might all require different information, need to be submitted to different places, and have different deadlines can be quite arduous. Charter schools, by their very nature, are designed to be separate from a centralized bureaucracy; however, this issue seems to be best addressed with an application process that *is* centralized. New Orleans and Denver are two case studies that emerge from the literature that have implemented common application processes for their schools.

Since Hurricane Katrina, public education in New Orleans has increasingly included school choice, and over 90% of students in the Crescent City now attend public charter schools (National Alliance for Public Charter Schools, 2015). By their design, charter schools make decisions independent from one another and independent from a traditional public school central

administration, including decisions regarding applications for student enrollment. This process becomes more arduous in a majority charter school system like New Orleans. In 2012, New Orleans launched a centralized application process known as OneApp (Gross, DeArmond, & Denice, 2015; Harris, Valant, & Gross, 2015). Parents can complete a single application and rank order their preferences for schools. A number of factors are considered, including proximity and whether siblings are also enrolled at the school, and an assignment is made. Over half of all students are assigned their first choice of schools and more than 75% of all students are assigned to one of their top three choices (Harris et al., 2015). In the same year, Denver also launched a similar common enrollment program. Although charter schools have a smaller market share in Denver compared to New Orleans, both cities have a K-12 educational landscape that involves a wide array of choices, and the application systems were created as a part of making the system more efficient and more equitable for families in both municipalities. Qualitative work conducted by Gross, DeArmond, and Denice (2014) yielded mixed findings. Parents indicated that the streamlined process made navigating the application process easier; however, misunderstandings about the process led some parents to complete the applications in ways that were disadvantageous for their children. Also, parents in both locations indicated that they felt that there was still a lack of high quality options from which to choose. The common enrollment processes did manage to level the playing field in one regard. Parents with more social and political capital would have previously been able to work around the system to enroll their children in schools they deemed desirable; the common application process substantially reduced that. Although most schools in both locations participated in the common application programs, a few did not – which creates increased barriers for parents to enroll their children in non-participating schools.

New York and Philadelphia are also sites that have implemented similar common application processes. The New York City Charter School Center (2015) offers solutions to both access problems addressed here – awareness and applications. Parents can visit the website www.nyccharterschools.org to learn about the charter school options available for their children. A link to the city's centralized application site is available for parents, along with information about charter schools in general, and answers to other frequently asked questions. In Philadelphia, where one-third of all public school students attend charter schools, there has also been a shift towards a common application process (Mezzacappa, 2013). Families in Philadelphia can complete a single application for all schools within the School District of Philadelphia, all of the schools run by the Archdiocese of Philadelphia, the majority of charter schools, and other participating private schools. This represents a partnership between public and private institutions that has the potential to eliminate many of the procedural barriers to access and entry into their schools. Future empirical work is needed to explore the effectiveness of these two programs.

Access to Experienced Teachers

Another issue of equity that exists in many of our nation's charter schools is access to experienced teachers. One-third of all teachers leave the profession within the first three years, and more than half of all urban teachers leave within five years (Barnes, Crowe, & Schaeffer, 2007), and this is often the result of a lack of preparation, not a lack of passion for teaching (Urban Teacher Residency United² (UTRU), 2014). Urban school districts experience an annual teacher attrition rate of about 20% to 25% (Ingersoll & Perda, 2009), leaving low-income and minority students the hardest hit by this constant turnover (Allensworth, Ponisciak, & Mazzeo, 2009; Ronfeldt, Loeb, & Wyckoff, 2013).

² In September 2015, UTRU became the National Teacher Residency Center (NTRC).

Teacher attrition is even greater in charter schools (Cannata, 2010; Gross & DeArmond, 2010; Miron & Applegate, 2007; Stuit & Smith, 2010). Teachers who taught at charter schools that were newly opened or start-up charter schools were more likely to leave than those who taught at schools that were converted from TPS (Stuit & Smith, 2010). When teacher characteristics and school context were controlled for, no statistically significant differences existed between the attrition at charter schools and TPS (Cannata, 2010; Gross & DeArmond, 2010). Gross and DeArmond (2010) note that it is quite possible that since a large number of charter schools serve low-income populations, this could be more representative of a “disadvantaged school problem and not a charter school problem” (Gross & DeArmond, 2010). In a study comparing charter school and TPS attrition, Cannata (2010) found that regardless of school type, both novice teachers as well as those who lacked certification were twice as likely to leave the school and profession as were more experienced and certified teachers. Burian-Fitzgerald, Luekens, and Strizek (2004) also found that teachers in charter schools were more than twice as likely as teachers in TPS to have five or fewer years experience in the classroom.

Stuit and Smith (2010) distinguish between two types of charter school teacher attrition – voluntary attrition and involuntary attrition (i.e. termination). Involuntary attrition is substantially higher in charter schools than it is in TPS. The majority of charter schools are not bound by collective bargaining agreements (Vergari, 2009) and have reduced regulatory barriers around school staffing (Stuit & Smith, 2010). As such, charter school administrators can more easily dismiss a teacher deemed to be inadequate, which in turn contributes to an increase in teacher attrition (Cannata, 2010). Some attrition of this nature might not be problematic if the end result is an improved teacher workforce in the long run. However, to ensure long-term success, charter schools need to attract and retain teachers further into their careers.

Some charter management organizations have been attempting to alter this trend by creating teacher residency programs to train and staff their schools (Stitzlein & West, 2014). Teacher residency programs can look different from site to site, but typically feature a pairing of theory and practice. Teachers spend the year prior to their first year as a teacher of record teaching alongside a mentor teacher and taking pedagogy coursework at the same time, and it is believed that this additional, extensive training will lead to increased levels of teacher retention in the long run (Solomon, 2009). Graduates of teacher residency programs in Boston and in San Francisco were more likely to have continued teaching in the same urban school district after five years than non-urban teacher residency graduates (Papay, 2012; UTRU, 2014). KIPP DC exclusively staffs its schools with graduates from their teacher residency program. Graduates of their residency program also teach in other charter schools in Washington, DC, since there are not enough open positions in KIPP to hire them all. While it is still too early for tangible evidence to exist, graduates of the KIPP residency program report higher rates of teachers intending to remain in the teaching profession after five years compared to other teachers in the district (ICF International, 2015). Match Charter Schools in Boston (Stitzlein & West, 2014) and KIPP New Orleans have also launched similar programs, both with the hope of addressing this issue of access and equity. In the fall of 2017, the Norman Francis Teacher Residency program will launch its first cohort (New Schools for New Orleans, 2017). This residency will train teachers for five charter management organizations in New Orleans. Additional empirical work will be required to investigate the effectiveness of these charter school-affiliated teacher residency programs, with an eye towards teacher quality, teacher retention, and student achievement as possible outcomes of interest.

Conclusion

Future research should continue to examine diverse charter schools. Long-term student outcomes of their alumni, as well as parental motivations for enrolling their children in these particular schools of choice, will be ripe for investigation. There are a growing number of teacher residency programs that staff both traditional public and public charter schools, especially in urban areas. Student achievement and teacher retention data will be of interest when examining charter teacher residency program. However, in depth qualitative work will also be necessary to unpack and understand how program graduates develop the knowledge necessary to be a successful teacher. Finally, access and equity issues will be especially important to study in school districts with a large share of students enrolled in charter schools. Access issues can exist for schools of choice that lack common application processes and transportation for eligible students, and equity issues can exist for schools with hyper-segregated student populations and a revolving door of inexperienced teachers.

Literature that problematizes controversial educational policies and practices is very healthy for the overall body of scholarship, and this is especially true for charter schools. When issues emerge in the literature, previously unexamined factors can be taken into consideration when designing studies. The end result is that more rigorous findings emerge and we can get a truer sense of the essence of what is being investigated. Perhaps the largest gap, and greatest opportunity, within the literature revolves around the propensity for so many scholars from all perspectives to treat *all* charter schools and *all* TPS as monolithic groups. Like TPS, charter schools can be found along a continuum that includes schools that are phenomenal to those that are in great need of improvement. By their very autonomous nature, charter schools should be expected to be different from one another, and researchers should treat them as such. Schools are messy and complex organizations and they are rarely all bad or all good. When issues emerge, including those discussed in this paper, the problems should be named and explored. But scholars should resist the temptation to make sweeping claims about *all* charter schools, regardless of what they find. By the very nature of their organizational structure, very little could be said to be true about all of them. And after issues of access and equity emerge in the literature, solutions should be sought and evaluated. Too often, that next step is never taken. The number of charter schools in the United States continues to grow, and these schools of choice are not likely to disappear any time soon. Therefore it is imperative that when issues related to access and equity emerge, we seek to learn from places like New Orleans and Denver with an eye towards advancing knowledge in a manner which better serves students.

Acknowledgements

I would like to offer my sincere gratitude to Michael Broda, Leanne Marshall, and Jesse Senechal from Virginia Commonwealth University, as well as Michael Scott from the University of Texas at Austin for providing helpful feedback and thoughtful comments during the preparation of this manuscript. This work was substantially improved as a result of their insights.

References

- Allensworth, E., Ponisciak, S., & Mazzeo, C. (2009). *The schools teachers leave: Teacher mobility in Chicago Public Schools*. Chicago: Consortium on Chicago School Research – University of Chicago.
- Barnes, G., Crowe, E., & Schaeffer, B. (2007). *The cost of teacher turnover in five school districts: A pilot*

- study. Washington, DC: National Commission for Teaching and America's Future.
- Boyd, W. L. (1994). Rational choice theory and the politics of education: Promises and limitations. *Journal of Education Policy*, 9(5). <http://dx.doi.org/10.1080/0268093940090512>
- Bulkley, K. E., & Wohlstetter, P. (2004). Introduction. In K. E. Bulkley & P. Wohlstetter (Eds.), *Taking account of charter schools: What's happened and what's next* (pp. 1-10). New York: Teachers College Press.
- Burian-Fitzgerald, M., Luekens, M. T., & Strizek, G. A. (2004). Less red tape or more green teachers: Charter school autonomy and teacher qualifications. In K. E. Bulkley & P. Wohlstetter (Eds.), *Taking account of charter schools: What's happened and what's next* (pp. 11-31). New York: Teachers College Press.
- Cannata, M. (2010, October). *School choice, school organization, and teacher turnover*. Paper presented at the Annual Meeting of the University Council of Educational Administration, New Orleans, Louisiana. Retrieved from http://www.vanderbilt.edu/schoolchoice/documents/ucea_choice_organization_turnover.pdf
- Chubb, J. E., & Moe, T. M. (1990). *Politics, markets, and America's schools*. Washington, DC: Brookings Institute Press.
- Cobb, C., & Glass, G. (1999). Ethnic segregation in Arizona charter schools. *Education Policy Analysis Archives*, 7(1). <http://dx.doi.org/10.14507/epaa.v7n1.1999>
- Darling-Hammond, L., & Montgomery, K. (2008). Keeping the promise: The role of policy in reform. In L. Dingerson, B. Miner, B. Peterson, & S. Walters (Eds.), *Keeping the promise? The debate over charter schools* (pp. 91-110). Milwaukee: Rethinking Schools.
- DeArmond, M., Jochin, A., & Lake, R. (2014). *Making school choice work*. Retrieved from Center on Reinventing Public Education: <http://files.eric.ed.gov/fulltext/ED546755.pdf>
- Duval County Public Schools. (2016a). Charter schools. Retrieved from <http://dcps.duvalschools.org/domain/5451>
- Duval County Public Schools. (2016b). Transportation. Retrieved from <http://dcps.duvalschools.org/site/Default.aspx?PageID=9193>
- Eaton, S. (2007). *The children in room E4*. Chapel Hill: Algonquin Books.
- Ely, T., & Teske, P. (2014). *Success Express: Transportation innovation in Denver Public Schools*. Boulder, CO: Center for Education Policy Analysis.
- Frankenberg, E., & Siegel-Hawley, G. (2012). Not just urban policy: Suburbs, segregation, and charter schools. *AASA Journal of Scholarship and Practice*, 8(4), 3-13. Retrieved from http://www.aasa.org.proxy.library.vcu.edu/uploadedFiles/Publications/Journals/AASA_Journal_of_Scholarship_and_Practice/Winter2012.FINAL.pdf
- Friedman, M. (1997). Public schools: Make them private. *Education Economics*, 5(3), 341-344. <http://dx.doi.org/10.1080/09645299700000026>
- Friedman, M. (2002, July 2). The market can transform our schools. *New York Times*.
- Garcia, G. F., & Garcia, M. (1996). Charter schools: Another top-down innovation. *Education Researcher*, 25(8), 34-36. <http://dx.doi.org/10.2307/1176491>
- Gleason, P. M., Tuttle, C. C., Gill, B., Nichols-Barrer, I., & Teh, B. (2014). Do KIPP schools boost student achievement? *Education Finance and Policy*, 9(1), 36-58. http://dx.doi.org/10.1162/EDFP_a_00119
- Grant, G. (2011). *Hope and despair in the American city: Why there are no bad schools in Raleigh*. Cambridge: Harvard University Press.
- Gray, P., & Chanoff, D. (1986). Democratic schooling: What happens to young people who have

- charge of their own education? *American Journal of Education*, 94(2), 182-213. Retrieved from <http://dx.doi.org/10.1086/443842>
- Gross, B., & DeArmond, M. (2010). *Parallel Patterns: Teacher Attrition in Charter vs. District Schools*. Retrieved from Center for Reinventing Education: http://www.crpe.org/sites/default/files/pub_ics_Attrition_Sep10_0.pdf
- Gross, B., DeArmond, M., & Denice, P. (2015). *Common enrollment, parents, and school choice: Early evidence from Denver and New Orleans*. Retrieved from <http://files.eric.ed.gov/fulltext/ED556474.pdf>
- Harris, D.N., Valant, J., & Gross, B. (2015). The New Orleans OneApp: Centralized enrollment matches students and schools of choice. *Education Next*, 15(4), 17-22.
- Hill, P. T., & Lake, R. J. (2010). The charter school catch-22. *Journal of School Choice*, 4, 232-235. <http://dx.doi.org/10.1080/15582159.2010.483925>
- ICF International. (2015). *External evaluation of KIPP DC Capital Teaching Residency program: Cycle II report*. Fairfax, VA: Author.
- Ingersoll, R. M., & Perda, D. (2009). *The mathematics and science teacher shortage: Fact and myth*. Paper presented at the University of Pennsylvania, Consortium for Policy Research in Education, Philadelphia, Pennsylvania.
- Jabbar, H. (2015). "Every kid is money": Market-like competition and school leader strategies in New Orleans. *Education Evaluation and Policy Analysis*, 37, 638-659. <http://dx.doi.org/10.3102/0162373715577447>
- Kahlenberg, R. D., & Potter, H. (2012). *Diverse charter schools: Can racial and socioeconomic integration promote better outcomes for students?* New York: The Century Foundation.
- Lake, R., Jochim, A., & DeArmond, M. (2015). Fixing Detroit's broken school system. *Education Next*, 15(1), 20-27.
- Levin, H. M. (2012). Some economic guidelines for design of a charter school district. *Economics of Education Review*, 31, 331-343. <http://dx.doi.org/10.1016/j.econedurev.2011.08.010>
- Maranto, R. A., Laczko-Kerr, I. I., & Vasile, A. (2015, April). *Desert bloom? Lessons from two decades of Arizona charter schooling*. Paper presented at the American Educational Research Association, Chicago, Illinois. Retrieved from <http://www.aera.net/repository>
- Mathews, J. (2009). *Work hard. Be nice. How two inspired teachers created the most promising schools in America*. New York: Algonquin Books.
- Mezzacappa, D. (2013, February 8). PhillySchoolApp site debuts. *The Notebook*. Retrieved from <http://thenotebook.org/blog/136631/phillyschoolapp-site-debuts>
- Milliman, S., Maranto, R., & Gresham, A. (2004). Does school choice segregate or integrate public schools? Arizona charter schools as a test case. *Journal of Public Management and Social Policy*, 8(2), 1-22.
- Miron, G., & Applegate, B. (2007). *Teacher attrition in charter schools*. Tempe, AZ: Education Policy Research Unit, Education Public Interest Center.
- Moskowitz, E. S. (2015, February 8). The myth of charter school "cherry picking". *Wall Street Journal*. Retrieved from <http://www.wsj.com/articles/eva-s-moskowitz-the-myth-of-charter-school-cherry-picking>
- Nathan, J. (1996). *Charter schools: Creating hope and opportunity for American education*. San Francisco: Jossey-Bass Publishers.
- National Alliance for Public Charter Schools. (2015). *A growing movement: America's largest charter school communities*. Retrieved from http://www.publiccharters.org/wp-content/uploads/2015/11/enrollmentshare_web.pdf

- National Alliance for Public Charter Schools. (2017). Get the facts. Retrieved from <http://www.publiccharters.org/get-the-facts/>
- National Coalition of Diverse Charter Schools. (n.d.). Our mission. Retrieved from <http://www.diversecharters.org>
- New Schools for New Orleans. (2017). *The Norman C. Francis Teacher Residency*. Retrieved from www.newschoolsforneworleans.org/the-norman-c-francis-teacher-residency
- New York City Charter School Center. (2015). Home. Retrieved from <http://www.nyccharterschools.org>
- New York City Department of Education Office of Pupil Transportation. (n.d.). General education transportation. Retrieved from <http://www.optnyc.org/ServicesAndEligibility/gettransportation.htm>
- Osborne, D. (2012). *Improving charter school accountability: The challenge of closing failing schools*. Washington, DC: Progressive Policy Institute.
- Papay, J. P., West, M. R., Fullerton, J. B., & Kane, T. J. (2012). Does an urban teacher residency increase student achievement? Early evidence from Boston. *Educational Evaluation and Policy Analysis*, 34(4), 413-434. <http://dx.doi.org/10.3102/0162373712454328>
- Patrick Henry School of Science and Arts. (n.d.a). About Patrick Henry School for Science and Arts. Retrieved from http://www.patrickhenrycharter.org/aboutus_phssa.htm
- Patrick Henry School of Science and Arts. (n.d.b). Our charter. Retrieved from <http://www.patrickhenrycharter.org/our-charter.html>
- Pennington, M. (2014). Three things to know about Philadelphia's school budget: Debt, pensions, and safety. Retrieved from http://www.watchdog.org/?url=http%3A%2F%2Fwatchdog.org%2F121163%2Fphiladelphia-school-budget%2F&utm_referrer=2733
- Ravitch, D. (2010). *The death and life of the great American school system: How testing and choice are undermining education*. New York: BasicBooks.
- Ravitch, D. (2013). *Reign of error*. New York: Alfred A. Knopf.
- Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, 50(1) 4-36. <http://dx.doi.org/10.3102/0002831212463813>
- Rothschild, M. (1973). Models of market organization with imperfect information: A survey. *Journal of Political Economy*, 1283-1308. <http://dx.doi.org/10.1086/260128>
- Rubenstein, D. (2014). *Charter schools serving a diverse student body: The next wave in education reform*. Paper presented at the 2014 National Charter School Conference in Las Vegas, Nevada.
- Ryan, J. E. (2010). *Five miles away, a world apart: One city, two schools, and the story of educational opportunity in modern America*. Oxford: Oxford University Press.
- Schanzenbach, D. W., Mumford, M., & Bauer, L. (2016). *Who has access to charter schools?* Retrieved from Brookings Institute: <https://www.brookings.edu/research/who-has-access-to-charter-schools/>
- School District of Philadelphia. (n.d.). Transportation. Retrieved from <http://webgui.phila.k12.pa.us/offices/t/transportation>
- Scott, M. R., & Marshall, D.T. (2017). *Spatially realistic public school choice sets for students in Philadelphia*. Paper presented at the Boustein School Convening on School Reform, Communities, and Social Justice in New Brunswick, New Jersey.
- Senechal, J. (2014). *The idea of the charter: One community's perspectives on the shifting nature of public education* (Doctoral dissertation). Available from ProQuest. (UMI No. 3621513)

- Siegel-Hawley, G. (2014). Race, choice and Richmond Public Schools: New possibilities and ongoing challenges for diversity in urban districts. *Urban Review: Issues and Ideas in Public Education*, 46, 507-534. <http://dx.doi.org/10.1007/s11256-014-0277-6>
- Sizer, T., & Wood, G. (2008). Charter schools and the values of public education. In L. Dingerson, B. Miner, B. Peterson, & S. Walters (Eds.), *Keeping the promise? The debate over charter schools* (pp. 3-16). Milwaukee: Rethinking Schools.
- Smith, A. (2003). *The wealth of nations* (5th ed.). New York: Bantam Books.
- Solomon, J. (2009). The Boston Teacher Residency: District-based teacher education. *Journal of Teacher Education*, 60, 478-488. <http://dx.doi.org/10.1177/0022487109349915>
- Stein, M.L. (2015). Public school choice and racial sorting: An examination of charter schools in Indianapolis. *American Journal of Education*, 121(4), 597-627.
- Stitzlein, S. M., & West, C. K. (2014). New forms of teacher preparation: Connections to charter schools and their approaches. *Democracy & Education*, 22(2), 1-10. Retrieved from <http://democracyeducationjournal.org/cgi/viewcontent.cgi?article=1146&context=home&sei>
- Stuit, D., & Smith, T. M. (2010). *Teacher turnover in charter schools*. Retrieved from National Center on School Choice: http://www.vanderbilt.edu/schoolchoice/documents/briefs/brief_stuit_smith_ncspe.pdf
- Urban Teacher Residency United. (2014). *Building effective teacher residencies*. Retrieved from <http://nctresidencies.org/wp-content/uploads/205/09/Research-Report.pdf>
- Urban Teacher Residency United. (2015). *Measuring UTRU network program impact*. Retrieved from <http://2nzvmtmxysesbi7fm3pk4v9h7.wpengine.netdna-cdn.com/wp-content/uploads/2015/09/UTRU-SFTRImpact-File-Reference.pdf>
- Vergari, S. (2009). Charter school policy issues and research questions. In G. Sykes, B. Schneider, & D. N. Plank (Eds.), *Handbook of education policy research* (pp. 478-490). New York: Routledge.
- Vincent, J. M., Makarewicz, C., Miller, R., Ehrman, J., & McKoy, D. L. (2014). *Beyond the yellow bus: Promising practices for maximizing access to opportunity through innovations in student transportation*. Berkeley, CA: Center for Cities + Schools, University of California.
- Wells, A. S., Baldrige, B., Duran, J., Lofton, R., Roda, A., Warner, M., & Grzesikowski, C. (2009). *Why boundaries matter: A study of five separate and unequal Long Island school districts*. New York: Teachers College Press.
- Welner, K. G. (2013). The dirty dozen: How charter schools influence student enrollment. *Teachers College Record*. Retrieved from <http://nepc.colorado.edu/files/welner-charter-enrollment-teachers-college-record.pdf>
- West, A., Ingram, D., & Hind, A. (2006). "Skimming the cream?": Admissions to charter schools in the United States and to autonomous schools in England. *Education Policy*, 20(4), 615-639. <http://dx.doi.org/10.1177/0895904805284054>

About the Author

David T. Marshall

Virginia Commonwealth University

marshalldt2@vcu.edu

<https://orcid.org/0000-0003-1467-7656>

David Marshall is a recent graduate and Research Assistant in the School of Education at Virginia Commonwealth University. His research focuses on high school graduation status, school choice, and teacher preparation. Prior to his doctoral work, David taught middle and high school social studies in both traditional public and public charter schools in Philadelphia, Pennsylvania.

education policy analysis archives

Volume 25 Number 83

August 7, 2017

ISSN 1068-2341



Readers are free to copy, display, and distribute this article, as long as the work is attributed to the author(s) and **Education Policy Analysis Archives**, it is distributed for non-commercial purposes only, and no alteration or transformation is made in the work. More details of this Creative Commons license are available at <http://creativecommons.org/licenses/by-nc-sa/3.0/>. All other uses must be approved by the author(s) or **EPAA**. **EPAA** is published by the Mary Lou Fulton Institute and Graduate School of Education at Arizona State University. Articles are indexed in CIRC (Clasificación Integrada de Revistas Científicas, Spain), DIALNET (Spain), [Directory of Open Access Journals](#), EBSCO Education Research Complete, ERIC, Education Full Text (H.W. Wilson), QUALIS A1 (Brazil), SCImago Journal Rank; SCOPUS, Socolar (China).

Please send errata notes to Audrey Amrein-Beardsley at audrey.beardsley@asu.edu

Join **EPAA's Facebook community** at <https://www.facebook.com/EPAAAPE> and **Twitter feed** @epaa_aape.

education policy analysis archives
editorial board

Lead Editor: **Audrey Amrein-Beardsley** (Arizona State University)

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)

Associate Editors: **David Carlson, Lauren Harris, Margarita Jimenez-Silva, Eugene Judson, Mirka Koro-Ljungberg, Scott Marley, Jeanne M. Powers, Iveta Silova, Maria Teresa Tatto** (Arizona State University)

Cristina Alfaro San Diego State University	Ronald Glass University of California, Santa Cruz	R. Anthony Rolle University of Houston
Gary Anderson New York University	Jacob P. K. Gross University of Louisville	A. G. Rud Washington State University
Michael W. Apple University of Wisconsin, Madison	Eric M. Haas WestEd	Patricia Sánchez University of University of Texas, San Antonio
Jeff Bale OISE, University of Toronto, Canada	Julian Vasquez Heilig California State University, Sacramento	Janelle Scott University of California, Berkeley
Aaron Bevanot SUNY Albany	Kimberly Kappler Hewitt University of North Carolina Greensboro	Jack Schneider College of the Holy Cross
David C. Berliner Arizona State University	Aimee Howley Ohio University	Noah Sobe Loyola University
Henry Braun Boston College	Steve Klees University of Maryland	Nelly P. Stromquist University of Maryland
Casey Cobb University of Connecticut	Jaekyung Lee SUNY Buffalo	Benjamin Superfine University of Illinois, Chicago
Arnold Danzig San Jose State University	Jessica Nina Lester Indiana University	Sherman Dorn Arizona State University
Linda Darling-Hammond Stanford University	Amanda E. Lewis University of Illinois, Chicago	Adai Tefera Virginia Commonwealth University
Elizabeth H. DeBray University of Georgia	Chad R. Lochmiller Indiana University	Tina Trujillo University of California, Berkeley
Chad d'Entremont Rennie Center for Education Research & Policy	Christopher Lubienski University of Illinois, Urbana-Champaign	Federico R. Waitoller University of Illinois, Chicago
John Diamond University of Wisconsin, Madison	Sarah Lubienski University of Illinois, Urbana-Champaign	Larisa Warhol University of Connecticut
Matthew Di Carlo Albert Shanker Institute	William J. Mathis University of Colorado, Boulder	John Weathers University of Colorado, Colorado Springs
Michael J. Dumas University of California, Berkeley	Michele S. Moses University of Colorado, Boulder	Kevin Welner University of Colorado, Boulder
Kathy Escamilla University of Colorado, Boulder	Julianne Moss Deakin University, Australia	Terrence G. Wiley Center for Applied Linguistics
Melissa Lynn Freeman Adams State College	Sharon Nichols University of Texas, San Antonio	John Willinsky Stanford University
Rachael Gabriel University of Connecticut	Eric Parsons University of Missouri-Columbia	Jennifer R. Wolgemuth University of South Florida
Amy Garrett Dikkers University of North Carolina, Wilmington	Susan L. Robertson Bristol University, UK	Kyo Yamashiro Claremont Graduate University
Gene V Glass Arizona State University	Gloria M. Rodriguez University of California, Davis	

archivos analíticos de políticas educativas
consejo editorial

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)

Editores Asociados: **Armando Alcántara Santuario** (Universidad Nacional Autónoma de México), **Jason Beech** (Universidad de San Andrés), **Ezequiel Gomez Caride** (Pontificia Universidad Católica Argentina), **Antonio Luzon** (Universidad de Granada)

Claudio Almonacid

Universidad Metropolitana de
Ciencias de la Educación, Chile

Miguel Ángel Arias Ortega

Universidad Autónoma de la
Ciudad de México

Xavier Besalú Costa

Universitat de Girona, España

Xavier Bonal Sarro Universidad
Autónoma de Barcelona, España

Antonio Bolívar Boitia

Universidad de Granada, España

José Joaquín Brunner Universidad
Diego Portales, Chile

Damián Canales Sánchez

Instituto Nacional para la
Evaluación de la Educación, México

Gabriela de la Cruz Flores

Universidad Nacional Autónoma de
México

Marco Antonio Delgado Fuentes

Universidad Iberoamericana,
México

Inés Dussel, DIE-CINVESTAV,
México

Pedro Flores Crespo Universidad
Iberoamericana, México

Ana María García de Fanelli

Centro de Estudios de Estado y
Sociedad (CEDES) CONICET,
Argentina

Juan Carlos González Faraco

Universidad de Huelva, España

María Clemente Linuesa

Universidad de Salamanca, España

Jaume Martínez Bonafé

Universitat de València, España

Alejandro Márquez Jiménez

Instituto de Investigaciones sobre la
Universidad y la Educación, UNAM,
México

María Guadalupe Olivier Tellez,

Universidad Pedagógica Nacional,
México

Miguel Pereyra Universidad de
Granada, España

Mónica Pini Universidad Nacional
de San Martín, Argentina

Omar Orlando Pulido Chaves

Instituto para la Investigación
Educativa y el Desarrollo Pedagógico
(IDEP)

José Luis Ramírez Romero

Universidad Autónoma de Sonora,
México

Paula Razquin Universidad de San
Andrés, Argentina

José Ignacio Rivas Flores

Universidad de Málaga, España

Miriam Rodríguez Vargas

Universidad Autónoma de
Tamaulipas, México

José Gregorio Rodríguez

Universidad Nacional de Colombia,
Colombia

Mario Rueda Beltrán Instituto de
Investigaciones sobre la Universidad
y la Educación, UNAM, México

José Luis San Fabián Maroto

Universidad de Oviedo,
España

Jurjo Torres Santomé, Universidad
de la Coruña, España

Yengny Marisol Silva Laya

Universidad Iberoamericana, México

Ernesto Treviño Ronzón

Universidad Veracruzana, México

Ernesto Treviño Villarreal

Universidad Diego Portales Santiago,
Chile

Antoni Verger Planells Universidad

Autónoma de Barcelona, España

Catalina Wainerman

Universidad de San Andrés,
Argentina

Juan Carlos Yáñez Velazco

Universidad de Colima, México

arquivos analíticos de políticas educativas
conselho editorial

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)

Editoras Associadas: **Geovana Mendonça Lunardi Mendes** (Universidade do Estado de Santa Catarina),
Marcia Pletsch, Sandra Regina Sales (Universidade Federal Rural do Rio de Janeiro)

Almerindo Afonso

Universidade do Minho
Portugal

Alexandre Fernandez Vaz

Universidade Federal de Santa
Catarina, Brasil

José Augusto Pacheco

Universidade do Minho, Portugal

Rosanna Maria Barros Sá

Universidade do Algarve
Portugal

Regina Célia Linhares Hostins

Universidade do Vale do Itajaí,
Brasil

Jane Paiva

Universidade do Estado do Rio de
Janeiro, Brasil

Maria Helena Bonilla

Universidade Federal da Bahia
Brasil

Alfredo Macedo Gomes

Universidade Federal de Pernambuco
Brasil

Paulo Alberto Santos Vieira

Universidade do Estado de Mato
Grosso, Brasil

Rosa Maria Bueno Fischer

Universidade Federal do Rio Grande
do Sul, Brasil

Jefferson Mainardes

Universidade Estadual de Ponta
Grossa, Brasil

Fabiany de Cássia Tavares Silva

Universidade Federal do Mato
Grosso do Sul, Brasil

Alice Casimiro Lopes

Universidade do Estado do Rio de
Janeiro, Brasil

Jader Janer Moreira Lopes

Universidade Federal Fluminense e
Universidade Federal de Juiz de Fora,
Brasil

António Teodoro

Universidade Lusófona
Portugal

Suzana Feldens Schwertner

Centro Universitário Univates
Brasil

Debora Nunes

Universidade Federal do Rio Grande
do Norte, Brasil

Lílian do Valle

Universidade do Estado do Rio de
Janeiro, Brasil

Flávia Miller Naethe Motta

Universidade Federal Rural do Rio de
Janeiro, Brasil

Alda Junqueira Marin

Pontifícia Universidade Católica de
São Paulo, Brasil

Alfredo Veiga-Neto

Universidade Federal do Rio Grande
do Sul, Brasil

Dalila Andrade Oliveira

Universidade Federal de Minas
Gerais, Brasil