Colombian Charter School Management

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Abstract

The aim of this paper is to shed light on aspects of the charter school debate that arguably receive less attention—teacher management and resource acquisition (beyond the funding and inputs provided by the government). To do so, it presents results of a case study of the "Concession Schools" charter school program in Bogotá, Colombia. For teacher management, findings indicate that charter school teachers in Bogotá feel that many aspects of their work environment are positive (e.g., they participate more in group planning with other teachers, they participate more frequently in professional development, and they engage more regularly with their principals for the purpose of teaching observation, feedback, and discussion of goals and problem solving), though they also report tradeoffs in terms of job security and financial compensation. Charter schools, using the flexibility afforded them around employment, spend half as much on teachers by hiring non-unionized teachers, contracting them for periods of a year or less, imposing more stringent hiring requirements, and offering significantly lower salaries, even though charter school teachers work over 12 hours more each week than their public school counterparts. Charter schools were also found to ignore teacher pay scale regulations—based on teacher qualifications and years of experience—instead assigning hired teachers to lower compensation categories. Findings with regard to resource acquisition address differences between public and charter schools, perceptions of school leaders, and the routes to resource acquisition used by charter schools, namely: budget prioritization, donations, volunteers, partnerships, and alumni networks. Through these avenues, charter schools are able to offer supplemental health and medical services, after-school clubs, weekend engagement, university scholarships, and teacher support (e.g., no-interest loans for post-bachelor's study), among others. Implications for future research are discussed, including the need for studies to distinguish among types of charter schools. The paper concludes that, when addressing the costs and benefits of charter schools in Colombia, we need to ask: Costs in what sense? Benefits for whom? And at whose expense?

Keywords: Charter schools, teacher management, resource acquisition, school finance, public-private partnerships, Colombia

Traditional public schools (TPS) are established, funded, and operated by a public or government entity.[1] Typically, TPSs form a system or network that is centrally managed and binds all schools within the system to be supervised and regulated in the same ways. Public charter schools, on the other hand, operate within a public school district but with freedom from some regulations, although they receive funding from the government (NAEP, 2008). They frequently operate under an alternative school purpose or mission and are free to form public-private partnerships to seek additional funding, beyond that provided by the government. Charter management organizations (CMOs), for their part, are bodies that typically manage a network of schools that have been founded on a common model with a shared purpose or mission (Farrell, Wohlstetter, & Smith, 2012). Charter schools are commonly discussed as being more effective at matching students with schools (that is, matching of student/family needs and interests with that of school mission), ensuring family choice, and improving educational quality and the efficiency of resource use as a result of a competitive climate (Chubb & Moe, 1990).

Charter schools have been a feature of the American educational landscape since 1992, when the first two opened in Minnesota, though it wasn't until later in the decade that they caught much attention (Barghaus & Boe, 2011), with CMOs emerging in 1999 and growing rapidly thereafter (Farrell et al., 2012). Charter schools and their variants have simultaneously grown increasingly popular outside the United States (Chakrabarti & Peterson, 2009). Indeed, the charter school model, in which schools are publicly funded but privately managed, has been picked up and promoted by various reform-minded international organizations, including the World Bank, as an example of public-private partnerships (LaRocque, 2008; Patrinos, Barrera-Osorio & Guáqueta, 2009).

[1] A revised version of this paper will appear in *Teachers College Record* (Edwards & Hall, forthcoming).

Perhaps due to the nature of their purpose or the sense of urgency from which they tend to emerge (since they are often offered as a solution in school districts or areas where public schools are seen as failing), the rhetoric around charter schools in general puts little attention on teacher management and resource acquisition. Put differently, given that charter schools are attractive because of the outcomes they suggest, what receives less attention are aspects of the charter school experience that are not emphasized in their theory of action. Here, we refer to intermediate or process-related issues associated with the management of charter schools themselves. Instead, literature on charter schools has tended to focus on outcomes such as student achievement (Heyneman, 2009; Jeynes, 2012). However, the prevalence of the charter schools within and outside of the United States underscores the need to understand what role such issues as teacher management and resourcing play in this increasingly popular education reform. Moreover, it is important to investigate teacher management together with more general strategies for resource acquisition since teachers (and the financial commitments their salaries require) are themselves a key resource for the functioning of charter schools (Abrams, 2016).

We address these issues through the study of a charter school program in Bogotá, Colombia, that began in 1999. In this model, the city of Bogotá recruited private schools and other private organizations to manage 25 charter schools that were newly built and well equipped in marginalized areas. As will be discussed, while charter school teachers in Bogotá enjoy a positive work environment in many regards (e.g., when it comes to collaboration with other teachers, frequent meetings with and feedback from school leadership, regular professional development), the tradeoff is not only a lack of job security (a common feature of work in charter schools) but also, and importantly, lower pay that often does not correspond to the salary scale regulations set forth in law. In terms of resource acquisition, the present study addresses

differences in resource provision between public and charter schools, the perception of charter school leaders that additional resources are needed, the avenues through which charter schools and their CMOs acquire those resources, and, finally, the various forms that additional resources take.

Going forward, we discuss previous literature related to teacher management and resource acquisition in charter schools. This is followed by an overview of the relevant policy context and characteristics, after which we detail the case study methods that we employed in conducting the underlying research. The latter portions of the paper are dedicated to findings, discussion, and implications.

Literature Review

Teacher Management

By teacher management, we refer to charter school strategies for teacher supervision, evaluation, feedback, and hiring, as well as to the experience of being managed, meaning, for example, teacher working conditions and the extent of teacher autonomy. Not surprisingly, studies have compared public and charter school operations and found that charter schools themselves have greater autonomy with hiring and budgeting in comparison with public schools (Abrams, 2016; Burian-Fitzgeral, Luekens, & Strizek, 2004; DeArmond, Gross, Bowen, Demeritt, & Lake, 2012; Malloy & Wohlstetter, 2003; Podgursky & Ballou, 2001). Such autonomy has been promoted as leading to higher quality teaching and increased student achievement. For example, a 1998 study by Ballou and Podgursky suggested that flexibility in pay structures, supervision, and the ability to fire ineffective teachers would improve the teaching force.

A great deal of literature also compares charter and public school teachers themselves (Cannata & Peñaloza, 2012). Across school types, studies have found that dissatisfaction with the school as a workplace or feelings of teacher-school mismatch often happens after recruitment (Ingersoll, 2001; Johnson, Berg, & Donaldson, 2005; Torres, 2014a). However, high-performing and prominent CMOs use targeted marketing practices in recruiting teacher candidates but also have clear messaging about mission and educational approaches through the placement and orientation phases, and this often ensures a good match between school and teacher (DeArmond et al., 2012). Teachers in charter schools tend to value the matching of the mission of the school where they work to their own philosophies of education (Cannata & Peñaloza, 2012; DeArmond et al., 2012; Nelson & Miron, 2004) and tend to choose where they work based on perceived classroom autonomy (Malloy & Wohlstetter, 2003). Other studies have found that teacher candidates weigh geographic proximity, incidence of poverty, and the demographic makeup of schools in deciding where to present themselves as applicants (Boyd, Lankford, Loeb, & Wyckoff, 2013).

On average, teachers in charter schools have fewer years of experience and are less likely to hold a formal teaching qualification, though there is a high degree of variance among charter schools with regard to the percentage of teachers with university degrees (Brewer & Ahn, 2010; Burian-Fitzgerald et al., 2004; Cannata, 2012). In the United States, teachers who work for CMOs are more likely to have attended a competitive university, in comparison with teachers in traditional public schools (Baker & Dickerson, 2006; Brewer & Ahn, 2010; Cannata, 2012). However, CMOs of lower quality tend to employ a greater number of recent graduates (Cannata & Peñaloza, 2012). Farrell, Nayfack, Smith, and Wohlstetter (2014) found that as CMOs grow in size, the demand for qualified teachers becomes larger than the supply of those who are

willing to work for a CMO. In general, CMO teachers are less often certified or licensed than their public school counterparts, though they often possess other characteristics that are deemed important or match the CMO's philosophy (like advanced degrees or experience that did not equate to licensure but is still viewed as relevant); in the United States, relaxed regulations with regard to teacher certification contribute to this phenomenon (Baker & Dickerson, 2006; Brewer & Ahn, 2010).

In comparing charter and non-charter teacher work life, studies show that charter school teachers tend to have longer work hours and earn lower salaries than their TPS peers because charter schools are more likely to be allowed to function without regard for the state, local, and/or union regulations TPSs must follow (Brewer & Ahn, 2010; Cannata 2012; Harris, 2006; Podgursky & Ballou, 2001). A number of studies have focused on determining the level of empowerment and autonomy teachers find in charter schools. Charter teachers tend to find more autonomy in the classroom and empowerment in the school itself (Bomotti, Ginsberg, & Cobb, 1999; Malloy & Wohlstetter, 2003; Ni, 2012; Wei, Patel, & Young, 2014; Weiss, 1999) than their public school peers, though this is not always the case, as many charter schools, especially in the United States, such as Achievement First, KIPP, and Uncommon Schools, have scripted curricula (Javier-Watson, 2016). To that end, Bomotti et al. (1999) challenged the myth that charter school teachers are more professionally empowered, as the teachers in their study reported equal levels of empowerment as traditional public school teachers with regard to curriculum decisions. Malloy and Wohlstetter (2003), on the other hand, found variations across charter schools regarding teacher responsibilities; for example, charter teachers in some states in the United States have management and peer evaluation responsibilities, but not all.

Additionally, larger CMOs have been found to have as little teacher autonomy as traditional public schools (Gawlik, 2007; Javier-Watson, 2016).

Increased autonomy for teachers is often accompanied by an increased teacher workload (Donaldson et al., 2008), and such a workload is often associated with a high turnover rate (Torres, 2014b). DeArmond et al. (2012) found in their study of CMOs that some organizations have turnover rates as high as 30 percent annually, but also that many of these organizations viewed turnover as an opportunity to find better matches for their missions, as opposed to seeing high turnover as an organizational flaw. KIPP, the largest CMO in the United States, has openly acknowledged its teacher retention challenges since 2009 and reported on the topic every year since; retention rates have hovered between 68 and 73% (Abrams, 2016). Also contributing to high turnover rates in charter schools are less job security and lower salaries (Abrams, 2016; Brewer & Ahn, 2010; Cannata 2012; Clark, 2001; DeArmond et al., 2012 Malloy & Wohlstetter, 2003). Across school type in the United States, higher attrition rates have been found among teachers who received less induction and professional development as well as among alternatively prepared teachers and teachers placed in high-poverty schools (which, in the United States, are defined as having 75-100 percent of students eligible for free or reduced price lunch) (Johnson, Berg, & Donaldson, 2005).

While CMOs have greater autonomy in hiring, the teachers they contract have fewer labor protections. Charter school teachers are usually not members of teachers' unions and are contracted on a short term basis (Brewer & Ahn, 2010; Cannata, 2012). The ability to dismiss ineffective teachers adds to turnover rates, but not always. Some studies have found that most turnover in CMOs was due to voluntary reasons on the part of the teachers, as opposed to the use by schools of the option to terminate teacher contracts (Cannata, 2012; Stuit & Smith, 2010). A

study by Ladd (2009) found that teacher perception of work conditions can predict "planned" departure rates but not actual departure, suggesting that work load challenges are associated with low morale but not necessarily to actual attrition rates.

Perhaps surprisingly, given the above, charter school teachers are more likely to report feeling satisfied with their work (Brewer & Ahn, 2010). In a comparison of working conditions based on the Schools and Staffing Survey results from 2004, Ni (2012) found charter schools showed a consistently more supportive work environment as defined by principal or school leadership support and sense of community and collegiality, which this researcher interpreted likely as a result of charter schools working under a less bureaucratic system. In other words, according to Ni (2012), charter schools have greater autonomy in creating the conditions for a supportive teaching environment. These findings were echoed by Wei, Patel, and Young's (2014) analysis of state level survey data from Texas. However, these authors also found that charter school teachers reported fewer professional development opportunities and perceived less fairness in the performance evaluation systems used (DeArmond et al., 2012; Nelson & Miron, 2004). Other studies have found no difference in amounts or types of professional development offered at charter and non-charter schools (Nelson & Miron, 2004). Torres (2014b) found that positive perceptions of professional development opportunities reduced the likelihood of teacher turnover even when teachers had increased workload. Thus, while the trend in charter schools is to place a more intensive workload on teachers than in TPSs, professional development can be used as a tool to improve job satisfaction and increase teacher retention. Relatedly, Lake et al. (2012) and Peyser (2011) both found that high-performing CMOs had intensive teacher coaching that was aligned to school goals and frequent teacher observations.

Resource Acquisition

Shifting to resource-related issues, it is generally believed that charter school organizations allow entrepreneurial expertise to enter the education sector and thus generate more efficient and innovative ways to operate schools (Brewer & Hentschke, 2009; Clark, 2001; Peyser, 2011). Despite the widespread nature of this claim, there is limited evidence that speaks to this issue, and what evidence literature does exist tends to suggest that charters may be less efficient and more costly. For example, Lake et al. (2012; see also Huerta & d'Entremont, 2010) found that CMO leaders struggle with avoiding administrative bloat (in addition to the larger issue of remaining financially viable). Baker, Libby, and Wiley (2012), for their part, compared TPS and CMO spending and found that some CMOs in New York and Texas, for example, spent 30 to 50% more per pupil. Actual per-pupil spending by KIPP, in particular, has been debated by researchers, the press, think tanks, and the CMO itself (Abrams, 2016). Though parties disagree on actual per-pupil expenditure and on how much of that figure is derived from philanthropic sources, it is important to note that everyone acknowledges the importance of philanthropic money to cover operating costs (Abrams, 2016). Elsewhere, it has been suggested that the apparatus necessary for public officials to monitor and oversee a network of charter schools increases the overall costs to the public school system, and without a corresponding rise in test scores (Levin, 1998; Rho, 2013). On innovation, Lubienski (2003, 2007) notes that charter schools tend to advertise innovation rather than implementing or introducing innovations to school management or classroom instruction. That is, while charter schools may offer such initiatives as remediation, college-preparation, or extended-day programs, they are not themselves innovators, and these additional programs may actually increase costs (Huerta & d'Entremont, 2010; Jessen & DiMartino, 2016). The same can be said for infrastructure, which

can have a positive impact on student achievement when better maintained and more adequate, but which also implies additional costs (Iregui, Melo, & Ramos, 2006).

While such issues as efficiency and, relatedly, per-pupil spending are particularly difficult to unpack (Baker et al., 2012), some research (although limited in nature) focuses on the importance of resources, for example, for teachers and for charter school survival. In two studies, while teachers reported feeling satisfied with their work, they were not so with the resources and facilities at CMOs, expressing dissatisfaction with resourcing levels in terms of the amount of resources given or adequacy of buildings and structures as well as dissatisfaction with the amount of planning time allotted (Bomotti et al., 1999; Brewer & Ahn, 2010; Cannata, 2008). Additionally, and unsurprisingly, the literature indicates that financial constraints and resourcing affect the ability of charter schools to carry out their mission of academic success and college preparation (Farmer-Hinton, 2006; Lake et al., 2012). In Arizona, to facilitate resource acquisition, tax laws have been established to provide additional funding to charter schools (through tax credits for donations), though the ability to take advantage of this opportunity is mediated by the income level and demographics of the school population (Powers & Potterton, 2014). One strategy pursued by charter schools to survive in such contexts of insufficient resources is to spend less on teachers. As noted by Arsen and Ni (2012) in their study of expenditures in Michigan charter schools, while charters and TPSs received similar funding amounts per pupil, they allocated the money in significantly different ways, with charters spending significantly more on administration and less on instruction than their TPS counterparts. One consequence of this is that charter teachers tend to be younger, less experienced, and lower paid (Huerta & d'Entremont, 2010).

However, CMOs and charter school principals have been shown to actively seek out additional resources, as opposed to simply relying on the funding provided by the government. Indeed, Huera and d'Entremont (2010) state that charter "school leaders are expected to respond to limited budgets by finding innovative ways to acquire and use resources rather than risk sacrificing critical programs and services" (p. 121). Thus, in the United States, where charters receive proportionally less funding per pupil and where they face significant start-up costs (e.g., to secure a school facility, purchase instructional materials, design curricula, etc.), the leaders of these schools have relied on a variety of strategies to access additional resources. In their study of charter schools in New York City, Huerta and d'Entremont (2010) reveal that they rely on "voluntary human services provided by parents or community-based organizations, … hard fiscal resources gained through capital fundraising, foundation grants, or partnerships with educational management organizations" (p. 121-122). In addition to these strategies, in their study of charters in California, Scott and Holmes (2002) found that such schools rely on two additional strategies: aggressive school administrators who seek out opportunities and the selection of high-status, influential, and wealthy individuals to serve on the boards of their schools. The importance of school boards in acquiring additional resources was underscored in Abrams's (2016) review of regional KIPP school boards' fundraising data; while the KIPP New York City board raised $21.7 million in 2010-2011, Albany, NY raised none. Such variation in fundraising was not limited to the state of New York. KIPP school boards across the country reported disparate amounts from location to location and from year to year, according to figures for the 2010-2011 and 2011-2012 school years (Abrams, 2016), emphasizing the point that even within CMO networks, variation exists. As will be shown in the present study, resource acquisition strategies

differ across contexts, according to the policy provisions and regulations around which entities can act as CMOs.

Policy Context and Characteristics in Colombia

In 1999, the new mayor and new Secretary of Education of Bogotá, Colombia, spearheaded the initiation of a charter school program. The idea behind this initiative was to find a rapid way to expand the supply, to increase the quality, and to improve the management of schools in the areas of great demand, which were also the marginalized areas of the city (Castro, Pérez, & Alvarez, 2012). By 2003, 25 charter schools were built that would serve approximately 4 percent (or 40,000 students) of Bogotá's student population (Secretaría de Educación, 2013).

The charter school model in Bogotá became known as Concession Schools (*Colegios en Concesión*, or CECs, in Spanish). In addition to being financed and built by the city—in high-poverty, low-access areas—they are managed by private entities like other private schools, churches, and "family benefit societies".[2] During the bidding process, private entities were sought that had a track record of success in managing private schools.[3] These private entities—or CMOs—have had to adhere to a number of minimum requirements with regard to curriculum, length of school day, and school meals. Teachers must also meet the requirements established by law for their positions and be paid based on the national pay scale, though they can be hired on short-term contracts. Finally, students must be selected who are from the lowest SES categories and who live near the school, with siblings also being given priority for admission

[2] As Villa and Duarte (2005) explain, family benefit societies (or "*cajas de compensación*") are "private entities funded by 2 percent of the payroll of private companies and public institutions. Their purpose is to provide recreational, health, training, housing, and other services to affiliated workers" (p. 122). Those that have participated in the CEC program "have extensive experience in formal and non-formal education" (p. 122)—important because the CMOs selected needed to have previous experience with school management.

[3] For more on the bidding process and the challenges associated with recruiting private entities to manage the new charter schools, see Edwards and Hartley (2015).

(Bonilla, 2011; Villa & Duarte, 2005). An additional feature of CECs to note is that they contain grades 1-11 in one school.

As with charter schools elsewhere, it has been suggested that the CEC model is an efficient and successful way of increasing both educational access and outcomes by bringing together the resources of the public and private sectors. Indeed, CECs have been featured in prominent fora hosted, for example, by the Brooking Institute and the World Economic Forum and promoted, for example, by influential international organizations such as UNESCO and the World Bank (UNESCO, 2007; World Bank, 2009). However, despite the attention this policy has received, promotion of the CEC model has tended not to focus on such aspects as teacher management and resource acquisition.

Methods

The findings presented in this paper are the product of a larger case study of CEC policy (Edwards, 2014). In addition to researching the theory of action—that is, looking at mechanisms of accountability and competition in practice (Edwards & Hartley, 2015)—the larger study also focused on the twin issues of teacher management and resource acquisition. In terms of teacher management, the study sought to investigate (a) the regulations that governed the hiring, firing, and compensation of CEC teachers, in addition to (b) how CECs respond to those regulations in contracting teachers and (c) the overall approach of CEC principals and the CMOs that oversee them when it comes to teacher engagement, collaboration, supervision, and professional development. In terms of resource acquisition, the focus was on understanding (d) the extent of government-provided resources to CEC schools, (e) the perceptions of CEC principals and CMO directors of the resources provided by the government, (f) the ways in which these actors have

sought to complement these resources, and (g) the kinds of additional resources that have been obtained.

Before proceeding, two points should be emphasized in relation to resource acquisition. First, as noted, the focus is on CECs and how they acquire resources. Second, and relatedly, although we address—to the extent possible—relative levels of funding to TPSs and CECs, the purpose was not to compare CEC funding with TPS funding, but rather to shed light on the strategies used by CECs to acquire supplemental resources, when they thought it necessary, and the strategies by which this was achieved.

Data Collection

Data collection targeted multiple forms of information and occurred over eight months. The first form—documents—included general publications, annual reports, and statistical digests from the Secretary of Education of Bogotá and from the Ministry of Education of Colombia. These documents provided insight into school finance in Bogotá and the emergence of the CEC program in addition to containing valuable statistics on the CEC program. Second, archives were also gathered, for example, from the Bank of the Republic of Colombia, from library holdings in Bogotá, and from the personal collections of key governmental interviewees (more below on interviewees) related to legal statutes (that provided the foundation for the CEC program), CEC financing, and CEC contracts. Third, these sources were complemented by previous literature on and evaluations of the CEC schools.

The fourth and final form of data was interviews (n=38), with these interviews occurring with four types of stakeholders, as portrayed in Table 1. First, interviews with key officials from the Ministry of Education of Colombia and the Secretary of Education of Bogotá were extremely

valuable for understanding details of the CEC program (e.g., related to teacher hiring requirements and resource provision); how the program has been managed, monitored, and evaluated over time by the government; and where to find additional information. To give an idea of the valuable perspectives gained from these participants, consider that in-depth interviews were conducted with the Minister and a Vice-Minister of Education for Colombia during 2002-2010, two Secretaries of Education for Bogotá during 1998-2003, the Director of the Colombian Institute for Educational Evaluation, the Director of CEC expansion for the Ministry of Education, the Director of Educational Coverage for Bogotá, and the Director of Evaluation for the Secretary of Education of Bogotá. Second, data from these actors was then complemented with interviews with evaluators, researchers, professors, and staff of international organizations (e.g., the Inter-American Development Bank) who are specialists in Colombian education and who have either previously studied or directly evaluated the CEC program. This group of stakeholders not only provided additional insights into the program's details but also helped to triangulate information provided by the first group.

[TABLE 1]

The third group of interviewees came from the leadership of the CMOs that run CEC schools. Three of the nine CMOs operating in Bogotá were included in the sample, with one CMO being interviewed from each of the three kinds of CMOs that manage CEC schools. That is, as noted in Table 2, one CMO interviewed is run by representatives of three high performing private schools together with a representative of a prestigious university in Bogotá, one CMO is run by representatives of a religious order, and, finally, one CMO is a family benefit society, which is an entity setup by private companies and public institutions to provide educational opportunities to their workers. In that each of the three possible kinds of CMOs were included in

the sample, the study was able to investigate and record perspectives from the full range of organizational types involved in the management of CMOs. The interviews themselves focused on the strategies and practices that guide teacher hiring, firing, management (including teacher evaluations, professional development opportunities, the ways teachers are encouraged or required to engage with the community and parents, etc.), and contract duration, as well as the perspectives of CMO leadership and CEC principals with regard to the resources provided by the government, and, finally, the ways that CMOs attempt to supplement these resources.

[TABLE 2]

The fourth group of actors came from the school and community levels. These actors included 11 CEC principals, seven public school principals, and one director of a Local Educational Administration Center (which is the lowest level of administration of the Secretary of Education of Bogotá). Interviewees were included through both purposeful and convenience sampling. On the purposeful side, the study targeted CECs in the southern portion of Bogotá (which corresponds to those CECs on the right side of Figure 1), since there was a concentration of CEC in this area. As can be see from Figure 1, 12 of the 25 CECs were located in this part of the city, which is densely populated, is predominantly home to low socio-economic status families, and has been historically marginalized, given that it has come into being through the construction of informal settlements and has grown as a result of internal migration within Colombia (and is inhabited, for example, by families who have sought to escape ongoing conflict elsewhere in the country). Seven of the 12 CECs in the southern portion of Bogotá were successfully interviewed, with each of these being complemented by an interview with the principal of the nearby public school. The additional four CEC principals in the sample were interviewed because of an offer to do so from one CMO that had CECs in this and other areas of

the city. The themes discussed in principal interviews reflected those mentioned above in relation to interviews with CMO leadership. Including interviews with principals was important in order to understand teacher management and resource provision by the government and how CECs go about acquiring additional resources. Finally, when speaking with the Director of the local office of the Secretary of Education of Bogotá, the discussion focused on differences in the relationship—and the support offered—between that office and the principals of CECs and TPSs.[4]

Through the above sources, a full picture of the relevant issues was attained. Indeed, in that actors were interviewed from multiple levels, a "vertical" perspective was achieved that was grounded in insights from school principals as well from CMO leadership and from key staff from the Secretary of Education of Bogotá and from the Ministry of Education of Colombia; additionally, a "horizontal" perspective was achieved in that insights were gained from across multiple CMO's, CECs and TPSs (Bartlett & Vavrus, 2009, 2014). These two perspectives together afforded not only an in-depth understanding of CEC policy, its provisions, and its implementation, but also a broad understanding of the ways in which the actors of interest here perceive it and have responded to it, particularly when it comes to teacher management and resource acquisition. Lastly, these two perspectives allowed for triangulation in addition to highlighting knowledge gaps or discrepancies to be clarified through subsequent data collection.

[FIGURE 1]

Data Analysis

[4] As Sarmiento et al. note (2005), these local education offices "were created to work on planning, coordination, and administration of local educational institutions" (p. 10).

In accordance with the twin focus of this study, two sets of analytic strategies were employed. First, the various documents, archives, evaluations, and literature gathered were systematically organized and reviewed for information related to CEC policy details (particularly related to teacher management and resource provision and acquisition); we also sought any previously documented findings related to the focus of this study. This information was extracted, thematically grouped, and subsequently compared with the findings from interviews, which were subject to the second set of analytic techniques.

Interviews were transcribed, repeatedly reviewed, and coded, with coded extracts also being grouped according to theme. Overarching themes related to the seven purposes (a-g) delineated above for this study, with sub-themes being developed as necessary. Examples of sub-themes include "teacher pay in CECs," "CEC teachers seek positions in TPSs", "teacher unemployment," "CEC supplemental services," "differences in school administration and support," "CECs not motivated by profit," etc. From the coded data, representative quotes were chosen for inclusion in the paper. Pseudonyms are used throughout for quote attribution (e.g., BOGACT1, NATACT1, etc).

In line with Miles and Huberman (1994), we engaged in analysis at each stage of the research process. That is, both during and after data collection as well as during the process of distilling and writing up the findings for each aspect of the study in the comprehensive research report. At heart, this ongoing process of analysis was characterized by iteratively engaging in data reduction, data display and verification, where data reduction refers to "selecting, focusing, simplifying, abstracting and transforming data by writing up field notes, coding data, making notes or identifying themes" (Miles & Huberman, 1994, p. 10). As a final step, we assessed the

totality of the data collected in terms of lingering questions, persistent gaps, and areas in need of future research.

Findings

Teacher Management

In a number of ways, CEC teachers enjoy a very positive work environment. During data collection, two previous surveys were located that focused on teachers in CECs and TPSs and compared their perspectives along a number of dimensions (Sarmiento, Alonso, Duncan, & Garzon, 2005; Termes et al., 2015). The survey results were consistent and revealed that CEC teachers participate more often in group planning activities, that they meet more frequently in formal and informal meetings with colleagues and parents, and that they engage more regularly in professional development activities. Teacher meetings at CEC schools focus, for example, on the school's "vision and mission; definition of curriculum, class material, and evaluation standards; collaboration with other colleagues; or participation in [professional development]" (Termes et al., 2015, p. 27). Teachers also experience more engagement with their principals, with the latter regularly observing the former, in addition to meeting to discuss goals and problem solving (Termes et al., 2015). At the same time, though, CEC teachers have less freedom in the selection of teaching methods (though these methods are also seen as less traditional than those employed in TPSs, not surprising in that CECs use computers, laboratories, and library visits more),[5] as the curriculum and pedagogical approach embraced by CEC schools are set by the CMOs (Sarmiento et al., 2005; Termes et al., 2015). Overall, however, while many

[5] Note that the use of these methods is linked to CEC ability to acquire supplemental resources, as discussed later in the paper.

of the above-mentioned findings arguably reflect aspects of the CEC working environment that teachers appreciate, it must be noted that a tradeoff of working in a CEC is job insecurity.

Indeed, a key feature of CECs is their autonomy in the hiring and management of teachers (Villa & Duarte, 2005). Teachers must be legally qualified for their job, and CECs are required by law to pay them according to the public school teachers' pay scale.[6] However, as can be seen in Table 3, CEC teachers are not unionized and, therefore, do not hold any kind of job security. Additionally, CECs do not necessarily pay for previous experience (more below) and can offer shorter contracts. Only 13.8 percent of CEC teachers have contracts with a 12-month duration, the rest are contracted for 11 months or less (Termes et al., 2015). Clearly, then, schools hold the power to replace their teaching faculty annually, a key feature of teacher management dynamics.

[TABLE 3]

CEC principals and leadership were open about the fact that they value the ability to manage teachers with more flexibility than TPS principals possess. One main way they use this flexibility is to include more stringent requirements of the teachers they hire. For example, one CMO requires teachers to be licensed in education and to have two years of experience (BOGACT10), while another requires a bachelor's degree (*licenciatura*) in addition to a post-graduate degree (or the teacher must at least be currently working towards a post-graduate degree) (BOGACT8), and a third, for its part, requires both a bachelor's a master's degree and two years experience (BOGFG3). In comparative perspective, each of these CECs requires more than the TPSs in Bogotá, considering that, as a minimum, teachers can begin to work in public

[6] See Termes et al. (2015) for more on pay scale details.

schools (up to grade eight) with only a high school degree, though teaching in high school (grades 10 and 11) and beyond requires that the teacher has graduated from a teacher training or technical college or has obtained a bachelor's degree.

CECs also have high expectations around teachers' work in practice. Some CECs, for example, offer (and require teacher participation in) continual professional development (BOGACT10). Beyond this, however, CECs generally approach the work of teachers from a value-added perspective, meaning that they not only expect teachers to carry out their responsibilities but they also expect the execution of these responsibilities to produce positive and measurable results, particularly when it comes to student achievement. The observation below from a CEC principal captures the CEC approach to teacher management:

> We demand a lot from them [teachers]. First, an added value of CECs is that we strive to train the teachers, not just to recruit them. Once they are hired, they are continuously trained. For example, in this school, the students arrive at 7:30 in the morning, but the teachers arrive at 6:45. All of the teachers have training from 6:45 to 7:30 in the morning, everyday. [The training deals with] pedagogy, education management, pedagogical modeling, values, and human development, because if the teachers themselves are well trained, the work they do will be better (BOGACT10)

As a result of such demands (as well as others, discussed below), CEC teachers, on average, spend over 12 hours more each week at school than their TPS counterparts, as highlighted in Table 3.

In addition to longer work days, CEC teachers are also less well compensated for their time. While the majority of TPS teachers (83.2 percent) earn two times the minimum wage or

more (i.e., over USD$600/month), the majority of CEC teachers (66.5 percent) earn two times the minimum wage or less (Termes et al., 2015). Moreover, though three (of the nine) CMOs do pay salaries that reflect the middle range of what TPS teachers earn—meaning that these CMOs pay between USD$600-1200/month, or between 2 and 4 times the minimum wage—two points need to be made: First, CECs avoid hiring (or paying) teachers salaries at the top end of the pay scale, except in rare cases; second, even for those teachers who work in relatively well-paying CECs, the school day is significantly longer (8.5 hours rather than 5-6 hours in duration, as is the case in TPSs). Moreover, since CEC shifts run from 7am-3:30pm, it makes it difficult for those CEC teachers who wish to find additional work to do so (because the second shift of TPSs runs from 1pm-6pm), unless they work the night shift in a TPS from 6-10pm or search for other work. In practical terms, then, CEC teachers tend to work more hours per shift and have lower income earning potential. A CEC principal explained these dynamics:

> We take as the basis [for payment] the regulations for traditional public schools and we add we're a bit higher... [But,] the big problem is that the teachers in the district [i.e., teachers in traditional public schools] earn a little less but work for half the amount of time. The district schools have three shifts, one in the morning that is normally from 6:00-6:30 to 11:30-12:30, one from 12:30-1:00 to 6:00, and one from 6:00-10:00. These are the three shifts they have in the district. A teacher could earn 100,000 pesos less than ours, or 50 or 60 dollars less, but they work from 6:30-12:30. Here, they have to work from 7:00 in the morning ...until 4:00 in the afternoon or until 3:00, because it is just one shift. (BOGACT1)

With regard to teacher compensation, evidence indicates that CECs have been unwilling to pay teachers according to the rank they achieved in the public teacher pay scale. In practice,

CECs may offer to pay teachers only a portion of what they should receive, according to their rank and years of service. A professor from the national university who has researched CECs explains the underpayment of teachers by CECs:

> At that time there were 14 levels on the salary scale, and teachers moved up according to seniority, education level, professional development, etc. Therefore, if I needed to work and I was in category 13, in this category today, I would earn 2 million pesos annually. The highest category, 14, would earn approximately 2.5 million pesos. This would be 1,000 dollars or so. So, if I went to a CEC and I want to work, they would ask me for records of my previous work and which pay level I was at. If I had been in category 13 they would have to pay 2.2 million pesos, but they cannot pay you that much, so they tell you, 'Bring me the certification for level 8 and I'll pay you the salary for that level." Meaning, they would pay you half. (NATACT2)

This finding has been corroborated by Garcia, Torres, and Zuluaga (2014) and Termes et al. (2015), the latter of whom quote a representative of the Secretary of Education of Bogotá: "Teachers in public schools are paid according to their teaching ranks. However, … all CECs hired teachers in the 7th category [the lowest one]. … There is a cost economy at the expense of labor and professional rights of teachers. CEC teachers' rights … are not recognized" (p. 26). A CEC principal commented as well: "The CECs, in spite of officially being a public school, do not dignify the labor of teachers. How do they not? By not paying either then amount of money or the number of payments that the public sector pays" (BOGACT1)—with one consequence being that many CEC teachers (those on contracts of fewer than 12 months) do not receive pay during the summer or winter breaks.

The willingness of teachers to work in these conditions may seem surprising at first. However, it becomes more understandable when one considers the lack of teaching positions vis-a-vis teacher demand in Bogotá. Teachers are willing to work in CECs because there are limited alterative options. When asked if it was difficult to find teachers at the time that his CEC opened, a principal responded, "No, because the unemployment here is barbarian, at all levels" (BOGACT16). Another principal responded that it is easy to find teachers "because there is a lot of demand for these jobs" (BOGACT3), although it is easier in certain areas for teachers to find positions, such as English and math. To put these statements in context, consider that, in 2015, 300,000 teachers submitted applications to fill 24,250 positions in Colombia (Osorio, 2015).

Given the longer hours, lower pay, and lack of job security, it is not surprising that many teachers who begin their careers in CECs move into TPS jobs as they become available (Bonilla, 2011). Those who do stay in CECs either cannot find employment elsewhere or are committed to the mission/model of the CEC schools. As has has been found, "The strong and majoritarian negative opinion of the bad employment conditions is combined with a certain positive valuation of the CEC in aspects such as pedagogical planning and training opportunities. In many cases, especially in religious schools, teachers considered themselves profoundly attached to the ethos of the CEC" (Termes et al., 2015, p. 27). To that end, and interestingly, CEC principals consider that hiring such teachers leads to a more efficient use of resources. In other words, in spite of the comparatively lower pay for teachers, CEC principals benefit because these same teachers tend to do more (and sometimes are more committed) for a lower price. In the words of a CEC principal:

> The teachers here are characterized by that, doing more than what is asked, having greater commitment to students' learning process. Therefore I see that there is a more

> efficient manner of resource management, there is greater commitment of the teachers, there is better organization of the school environment, and there is a greater sense of humane treatment to the students (BOGACT11).

As the next section explains, teacher salaries are only one area of focus for CECs when trying to maximize resources.

Resource Provision and Use

Between 1999 and 2003, 25 CECs were newly constructed by the Secretary of Education of Bogotá specifically for this program, in marginalized areas with insufficient capacity to serve the student population. The schools were designed to accommodate 800-1200 students in 24 classrooms with "top-quality infrastructure" (Villa & Duarte, 2005, p. 114). CECs are, thus, intentionally well resourced, with each containing such features as a recreation room, a science laboratory, two art rooms, three technology rooms, a library, and multi-purpose fields, all "fully equipped" (Villa & Duarte, 2005, p. 114). The average cost of constructing each school was $2.5 million, including the purchase of the land, construction, and school furniture and equipment (Villa & Duarte, 2005). According to Villa and Duarte (2005), not only should the quality of the building and its facilities be a source of pride to the children and the community, and not only should these schools raise expectations about the learning experience, but they should also be centers of social development for their communities.

CECs also receive a set amount of per pupil funding each year, though this amount has changed over time and has been the source of much frustration on the part of CEC leaders. At the program's beginning, CECs were awarded an average of USD$545 per student per year, with this amount rising to USD$945 by 2014 as a result of inflation (Termes et al., 2015). The original

amount was based on a basket of education services deemed to be necessary and which entailed staff costs (including wages and benefits), educational materials, infrastructure maintenance, school administration, security services, hygiene facilities, and a daily snack (Villa & Duarte, 2005). For public schools, researchers have claimed various figures for cost per pupil. At the time of the program's initiation, these figures ranged from about USD$430 ($1,000,000 pesos per year) (Barrera-Osorio, 2006) to about USD$599 ($1,259,490 Colombian pesos) (Iregui et al., 2006).[7] By 2013, estimates for per pupil funding in public schools rose to approximately USD$1720 ($3,181,060 pesos), with the large increase here also due to high rates of inflation (Pérez, 2015).[8]

However, one must be cautious in interpreting the above figures, particularly when it comes to estimates for per student costs in public schools, as it is not always clear what expenses are included in researchers' calculations. Moreover, TPSs and CECs have school days of differing lengths (5 hours vs. 8.5 hours), thus making comparisons difficult, in addition to the fact that the Secretary of Education of Bogotá has both specific (e.g., transportation) and system-wide costs that CECs do not incur. In the words of one interviewee who implemented the CEC program in Bogotá and then nationally:

> Here, in [the Secretary of Education of Bogotá], nobody knows the cost of a student in the official system. One day, they come out with one figure and the following day they say no, that it's half as much, and the following day they come out with another figure. Nobody has been able to know how much it costs (NATACT6).

[7] The conversion for the figure from Iregui et al. (2006) assumed an exchange rate of USD$1 = $2,100 Colombian pesos, based on Trading Economics (2016). Barrera-Osorio (2006) include funding figures in both USD and Colombian pesos.

[8] Assuming an exchange rate of USD$1 = $1850 Colombian pesos for 2013 (Trading Economics, 2016).

Thus, just as is common in the United States (Baker et al., 2012), there is a lack of clarity in Colombia when it comes to identifying and comparing costs across charter schools and TPSs. Following from the above—in addition to being outside the scope of the present study—it is simply not possible to make definitive claims related to per pupil funding across CECs and TPSs, nor related to relative efficiency with which those resources are used.

However, in what is perhaps the most useful financial analysis to date, the Secretary of Education of Bogotá (2013) estimated differences in how resources are spent, using as the point of comparison a recent "40*40" initiative being implemented in a portion of public schools in Bogotá where students are in class for 40 hours a week, with a student-teacher ratio of 40. In comparing six kinds of costs (human resources, maintenance, learning materials, administration, transport, and nutritional support), the analysis found that "public 40*40" schools cost USD$2,091 per student annually, as opposed to USD$1071 for CECs. What is interesting here, though, is how resources are allocated: 55 percent of the difference derives from "public 40*40" schools spending more on human resources, that is, teacher salaries, a finding which accords with the profile of CEC teachers presented above (i.e., since CEC teachers tend to have fewer years of experience and/or are placed in salary categories below their earned rank). Other areas of note are transportation (accounting for 7.7 percent of the difference, since CECs do not receive government funding for this), learning resources (with these public schools spending 21.43 percent more), and nutritional support (an expense that accounts for 13 percent of the difference).

The Necessity of Garnering Additional Resources

The figures presented above cannot be interpreted to mean that CECs provide fewer resources to their students; rather, these figures simply show how government-provided funding is invested. To this picture, one must add the various other resources that CECs garner and the ways that they are able to do so. To be sure, CEC principals and leadership dedicate significant time and energy in order to acquire additional resources, as they believe the amount they receive per pupil to be insufficient to cover their costs. On one hand, this assertion is due to the fact that the cost of certain inputs rose faster than the per pupil funding rate. The key example here is teacher salaries, the legal pay scale for which increased more rapidly than inflation (with inflation determining the rate of adjustment of CEC funding) (Termes et al., 2015). On the other hand, CECs have viewed the acquisition of additional resources as necessary because they are unwilling to compromise on services that they see as essential, examples of which are discussed later in the paper. Thus, while the Secretary of Education of Bogotá asserts that "the basket of educational services established was just enough to have a school like they imagined" (NATACT6) particularly if managed well, the CECs, for their part, claim: "we lose money because of the manner in which we want to do education" (BOGACT1).

Interestingly, feelings of unjustness were present in both CEC and TPS principals. While the former were frustrated with what they perceived (and experienced) as inadequate funding, the latter were frustrated with the fact that CECs were provided with new and well-equipped facilities, thereby affording CECs an advantage that was out of reach for TPS principals. On both sides, feelings that the other benefits from unfair resource provision are spurred on by a context in which TPS costs per pupil are unknown.

Additional CEC Resources

As noted previously, the CECs were brand new at the time of their opening and were replete with modern equipment. To these initial inputs, CEC principals and the CMOs that oversee them have added a range of other resources. Table 4 summarizes the various resource types—along with examples of each—that were identified in this study. Generally, the table is organized such that more substantive resources are listed more near to the bottom. As can be seen, CECs offer donations to students and families in the form of uniforms and food assistance, as well as additional meals (beyond the one that is required according to CEC contracts) for students while at school.

Other resources that stand out, and which were regularly referred to in interviews, relate to student health and supplemental medical services. More specifically, these include psychologists, social workers, nurses, dental checkups, and eye exams. A CEC principal speaks to this point while also including commentary on what TPSs offer:

> So, here there are [several] lines of work ... The first, giving them proper nutrition, the second, offering complementary medical and dental services to those [services] that they already have, so we have a dental office, medical insurance, a nurse which is very difficult to find today in public schools, we have a social worker and a psychologist. Public schools normally have either social workers or psychologists, who at times acts as an advisor (BOGACT1)

Thus, as noted, TPSs do offer some of the same supplementary services as CECs, such as psychologists and social workers. The difference, however, is the ratio of students per specialist, as the director of the local-level office of the Secretary of Education of Bogotá explained:

> The public schools also have a sociologist or an advisor. What happens is that we do not have these positions in the same numbers that they have, we have one advisor for every 600 students. They have an advisor for every 350 or 400, but in the secretary of education, we do have contracted sociologists. (BOGACT18)

Relatedly, some CECs have "super rooms" for students with learning disabilities, in addition to offering multiple forms of engagement for students and their families in the afternoons and on the weekends. In the quote below, a CEC principal describes these various resources:

> Many parents know, the support that we have for children with learning difficulties. So, we have a super room, we have clubs to keep the children busy all the time with things that help them. Just right now, you are listening to the band, we have many clubs, and our desire to occupy the kids' free time, so they are not in the street which would be unsafe (BOGACT3).

After-school programs and weekend activities revolve around such topics as good use of free time, math and English practice, reading, and technology use. Some CECs also work with community leaders to implement programs in the community, such as trash cleanup. In other CECs, the principals and teachers make a point to contact parents in the afternoons and on the weekends, particularly in those cases where students are struggling. However, beyond the traditional strategy of house visits, it was found that CECs have also focused on working with parents and students together, for example, around reading-writing support, as one CEC principal shared:

> We do a lot of workshops for parents. ... We arrived at the conclusion that we have to impact parents, change the parents, and we have several projects. For example, another [project] that I can mention besides the parent workshops, we have a reading and writing plan, where the parents are part of that. So, every week parents come to take some books to read at home as a family, or we are going to a library near here, we go on Saturdays with children and parents to read there. What we want is to foster a culture. (BOGACT3)

To implement these programs, CECs at times rely on teachers to work extra hours. At the same time, though, CECs offer additional resources to teachers, for example, in the form of in-school food subsidies and no-interest loans to pursue post-bachelor's study. However, while volunteer teacher labor is a key avenue for enabling the provision of additional resources to students and their families, it is only one strategy among many, as discussed further in the next section.

[TABLE 4]

Resource Acquisition Strategies

Through the present study, it was found that CECs rely on five strategies to acquire additional resources, beyond the initial infrastructure and learning materials provided by the government. The first is budget prioritization—that is, the CECs and the CMOs that oversee them place more emphasis on certain inputs than others. As the supervisor of the CEC program from the Secretary of Education of Bogotá commented: "[that CMO] spends a lot on this specialized class they have for catching students up that has some pedagogical elements that can be more expensive because they require more staff" (NATACT6). A CEC principal also addressed the issue of budget priorities in reference to after-school activities: "Yes, there is a

band, the CEC pays for it from its own money. It is part of that deficit [in funding] that you have. In other words, programs, extracurricular activities, how there is a band in [this school] or you might do it a dance club in the afternoon, those things are part of the concession" (BOGACT5). Thus, not only do CECs allocate the funding that they receive differently, but, as the previous statement indicates, they are commited to services that cannot be covered by per pupil funding alone.

Adding to government funding are donations. These donations originate from a number sources, including the parent CMO (which may provide buses for excursions), the parent-teacher association of the parent CMO (which may provide funding for school and sport team uniforms), and from foundations (which may donate used clothing or machines for vocational education, for example). Regarding foundation donations, a CEC explained:

> We did not arrive to say, we need 100 million pesos for this [thing], no never. ... I, for example, went out to look for foundations, told them, "We want to get some machines [for vocationa-technical education]. Wouldn't you want to provide some machines?" If I ask the CEC if it is possible, the CEC will tell me yes, but I wanted to involve foundations and to pursue avenues other than the school, so that the help was faster and of greater quality, this is the kind help that I am explaining. (BOGACT16)

Interestingly, then, even where CEC principals could use the school's budget for certain materials, they prefer at times to look for ways to involve private foundations, because they are seen as providing assistance that is quick and high quality. Notably, this strategy also helps to stretch what budget the school does have.

The third strategy identified is the use of volunteers, including university students, parents, and teachers. While teachers help to implement after-school activities, and while parents volunteer around the school with various tasks, CECs also set up programs with local universities for student volunteers, as a CEC principal described: "we have agreements with universities ... those from the universities come here to the school on Saturdays, undergraduate education students, to review the literacy programs with the children" (BOGACT10). In another case, university students work with school children in a dance club at a CEC, with these university students able to receive credit for the social service hours they are required to peform as part of their degree. Outside of volunteers, however, larger partnerships were also established with universities and other organizations.

Indeed, partnerships is the fourth strategy, with each partnership being facilitated by CEC leadership, just as Scott and Holmes (2002) noted in relation to charter schools in California. For example, CECs in Bogotá have established partnerships with religious organizations (e.g., the local parish) to procure used clothes and shoes for students (e.g., for first communion) and with the National System of Youth and Infant Orquestras of Colombia. A CEC principal explained in detail this last relationsihp:

> In fact, one of our strongest links is with Batuta, which is an institution that works on music for children and youth, it is the National System of Child and Youth Orchestras of Colombia. Batuta works in this school for all children in this neighborhood, not only for children of [this CEC]. … there are horns, flutes, cellos, trumpets, there is an orchestra, there are groups, there are 250 children. 100 are from [this CEC] but the rest are from other schools. What is the advantage that Batuta has here? What does Batuta get out of

> being here? We give them a space, which we help with, we advertise them on our website, we give them lunch, we facilitate the processes [for these things]. (BOGACT1)

Notably, such partnership strategies can reinforce the positive image or reputation that CECs enjoy, for example, as a result of the orquestral relationship being featured on the CEC's webpage.

The final avenue for resource acquisition is alumni networks. This strategy has been most relevant in relation to university scholarships. Here, principals reach out to former students who now work in various universities, asking them to facilitate the arrangement of scholarships for students from their CEC. Thus, many of the avenues for resource acquisition overlap. For example, when it comes to scholarships, the strategies of donations, partnerships, and networks intersect. More will be said about this issue in what follows.

Discussion

This paper has sought to shed light on approaches to teacher management and resource acquisition in charter schools by focusing on the case of CECs in Bogotá, Colombia. On teacher management, for example, it was found that, in many regards, CEC teachers enjoy a positive work environment in that they participate more in group planning with other teachers, they participate more frequently in professional development, and they engage more regularly with their principals for the purpose of teaching observation, feedback, and discussion of goals and problem solving. In part, these findings echo previous research. That is, while Ni (2012) has found that charter schools embodied a more supportive work environment, other scholars have reported that charter school teachers in the United States have fewer professional development opportunities (Wei et al., 2014). However, in that this finding is inconsistent across studies, it

represents and area for further investigation. Future studies should not only compare professional development in charter schools and non-charter schools, but should also distinguish among types of charter school management, as there is likely to be differences in professional development opportunities and requirements between independent charter schools and those run by CMOs, for example. Interestingly, and in contrast with previous research (e.g., Bomotti et al., 1999; Malloy & Wohlstetter, 2003; Ni, 2012; Wei et al., 2014; Weiss, 1999), the teachers in the present study did not report more autonomy in the classroom. This finding is due to the fact that the pedagogical approach to which teachers should adhere is defined by the CMO that oversees the teachers, not unlike the CMOs in the United States such as Achievement First, KIPP, and Uncommon Schools (Javier-Watson, 2016). Ultimately, through this supportive, collegial, and guided approach, CECs expect that their teachers will deliver added value for students.

CECs use their autonomy in other ways as well. For example, they hire non-unionized teachers, contract them for periods of a year or less (with the implication being that many teachers are not compensated during the summer or winter breaks), impose more stringent hiring requirements (beyond what is required to work in public schools), and offer significantly lower salaries, on average, despite working over 12 hours more each week than their public school counterparts. Again, these findings both align with and differ from previous research. The higher education level of CEC teachers in Bogotá mirrors the finding that elite CMOs in the United States hire teachers from more competitive universities (Baker & Dickerson, 2006; Brewer & Ahn, 2010; Cannata, 2012). However, while other scholars have indicated that demand for high-qualified teachers in US charter schools outstrips supply (Farrell et al., 2014), in Colombia, CMOs benefit from an oversupply of teachers because of insufficient teaching positions in the country. Longer work hours, lower teacher pay, and the absence of job security in CECs in

Bogotá are further similarities with previous studies (Brewer & Ahn, 2010; Cannata, 2012; Harris, 2006; Podgursky & Ballou, 2001), and like previous studies have found, because of these features of teacher management by charter schools, there is greater teacher turnover (Brewer & Ahn, 2010; Cannata, 2012; Clark, 2001; DeArmond et al., 2012; Malloy & Wohlstetter, 2003)—the exception here, as elsewhere, being those cases where CEC teachers prefer to work in a school where they identify with the mission (a preference which is more common for CEC teachers working in schools run by religious orders) (Cannata & Peñaloza, 2012; DeArmond et al., 2012; Nelson & Miron, 2004).

Of course, the issue of teacher salaries stands out as an aspect of teacher management in need of further attention. On the one hand, this is because the findings here indicate that CECs ignore teacher pay scale regulations—based on teacher qualifications and years of experience—instead assigning hired teachers to lower compensation categories. Indeed, in that representatives of the Secretary of Education of Bogotá have been found to be aware of this practice, but seem not to have pursued corrective action, raises questions about why this may be the case. One explanation may be that the government has not been in a position to replace CMOs with alternative management because there are too few qualified organizations with interest in managing charter schools in marginalized areas of the city. Whatever the reason, charter school compliance with applicable hiring regulations in Bogotá is an area in need of further investigation; this issue also stands out as one that has not been the focus of much research on charter schools generally.

On the other hand, teacher salaries warrant further attention in relation to resource acquisition and use more generally. While per pupil funding figures for CECs and TPSs cannot be compared for reasons explained in the paper, the closest comparison available shows CECs

receive less funding from the government per pupil than the amount that the government spends per student in its recent initiative to offer high quality education in public schools (i.e, the 40*40 initiative). Indeed, while 40*40 schools cost twice as much (USD$2,091 per student annually vs. USD$1071), over half of the difference (55 percent) is due to the fact that CECs choose to pay teachers less, with another 42 percent of the gap due to differences in spending on transportation (7.7 percent), nutritional support (13 percent), and learning resources (21.43 percent). Unsurprisingly, in a context with surplus workers and non-union contracts, labor suffers lower salaries, a finding that has been echoed in relation to charter schools before (Arsen & Ni, 2012; Huerta & d'Entremont, 2010). Moreover, in a context where funding is seen to be inadequate, CECs are willing to pursue a range of strategies to supplement school resources but not to supplement teacher compensation.

While we cannot speak to the efficiency with which CECs use their resources, the perceived need of supplementing government resource provision was understandably strong, just as Huerta and d'Entremont (2010) have suggested it should be for charter school leaders (who they claim should be motivated by the gap between the funding they receive and the resource levels they deem necessary). In the present study, it was found that five strategies are employed to garner a wide range of resources: budget prioritization, donations, volunteers, partnerships, and alumni networks. To this list, we could have added "proactive school leadership" as an additional strategy, as Scott and Holmes (2002) have done; however, in that this strategy is necessary for the activation of the other strategies presented here, we do not list it separately. Interestingly, while CECs and charter schools elsewhere both acquire volunteers and donations by relying on parents and partnerships with foundations and by tapping into their relationship with the CMOs that oversee them, two differences stand out (Huerta & d'Entremont, 2010; Scott

& Holmes, 2002). The first is reliance on grants and fundraising. This strategy may not have been targeted by CECs for two reasons—(a) because the government provided new and well-equipped schools upfront for the CEC program, thereby eliminating the need to fundraise or write grants for expenditures such as facilities, teaching materials, and furnishings (expenditures which US charter schools often have to cover on their own; Huerta & d'Entremont, 2010), and (b) because CECs were able to acquire the resources they sought through other avenues.

The other strategy of difference is "governing board membership," which is used by US charter schools in order to benefit from the "connections, expertise, or resources these people could bring to the school" (Scott & Holmes, 2002, p. 112). In contrast, in Bogotá, this strategy wasn't necessary because of the way the CEC program was initially designed by the government, which decided that it would only allow charter schools to be managed by private entities (e.g., private schools, religious foundations, or family benefit societies) with a track record of engagement in educational services. The implication is the CMOs in Bogotá were not new players in the education sector; that is, they were already well connected and had good reputations. Bogotá's CECs were thus arguably in a better position to start than many charters in the United States, which must procure their own facilities, teaching materials, and furnishings (Huerta & d'Entremont, 2010) and which must invest time and energy on the front end to network and make connections (Scott &Holmes, 2002).

Conclusion

In sum, supporting CECs is a question of policy priorities, particularly since CECs have not been found to produce better results on standardized exams in comparison with TPSs once length of school day and student socio-economic status is taken into account (Termes et al.,

2015). In that CECs are well equipped and in that they are able to acquire and provide a range of supplemental resources and services, they are islands of excellence in which students benefit and in which teachers suffer—at least in terms of salary, job security, and bargaining power, if not in terms of teaching resources and a collegial work environment. Moreover, based on the available funding estimates, it may be that CECs are less costly for the government on a per pupil basis than typical TPSs. However, it needs to be remembered that the cost incurred by the government only reflects part of the total cost. As shown in this study, complementing the government's funding are various forms of additional resources, such as supplemental health and medical services, after school clubs, weekend engagement, university scholarships, and teacher support (e.g., no-interest loans for post-bachelor's study), among others. Thus, while we cannot say definitively, it may be that the overall value of CEC services is greater than cost of TPSs to the government. To be sure, future research is needed in this area.

What the present study does indicate is that the CEC program functions as a way for the government to enable a well-resourced educational experience for some students without bearing many of the costs. CECs fill this gap through a number of avenues, including the networks and social capital of their CMOs, their principals, their alumni, and the parents of their students. On this last point, it is worth noting that CECs, like other charter schools (Huerta & d'Entremont, 2010), have been found to admit students who are relatively more well off and less needy (Edwards & Hartley, 2015; Termes et al., 2015), with the implication being that CEC students further benefit from the composition of the student body and from the ability and willingness of their peers' parents to volunteer with the school on different projects. At the same time, then, these parents are removed from TPSs, compounding the effects of TPSs having older infrastructure, lower morale, fewer resources, more students, less time for principal outreach,

shorter school days, different networks, and a smaller amount of discretionary spending at the school level (Edwards, 2014; Termes et al., 2015).

In discussing teacher management and resource acquisition in CECs in Bogotá, our aim has been to shed light on aspects of the charter school debate that arguably receive less attention. As we have shown, CECs are very dedicated when it comes to their commitment to providing a quality educational experience for their students. In making this experience available, both the government and CECs dedicate their energy and resources in ways that involve tradeoffs, tradeoffs with significant implications for those involved, including teachers and students—in both CECs and TPSs. As always, tradeoffs involve costs and benefits. Our point here is that, going forward, when addressing the costs and benefits of charter schools, we need to ask: Costs in what sense? Benefits for whom? And at whose expense? Our hope is that the present paper contributes to the understanding of these issues in relation to the case of CECs in Bogotá.

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Table 1: Summary of Interviewee Characteristics	
Actor Groups	**No.**
Ministry of Education of Colombia Officials	5
Secretary of Education of Bogotá Officials	5
CEC Evaluators and Researchers, and Colombian Education Specialists	7
Charter School Management Organization Leadership	3
Charter School Principals	11
Public School Principals	7
Total	**38**
Note: Total is more than sum of individual interviewees (35) because some interviewees held positions at more than one level during their career.	

Table 2: Summary of Charter Principals Interviewed		
Operator (CMO)	**Principals Interviewed**	**CMO Information**
Colsubsidio	4	- Is a family benefit society - Participated in CEC program from the beginning
Fundación Gimnasio Moderno	2	- Foundation is based in and dedicated to the service of others - Created by managers of the elite private school of the same name in Bogotá - Interested in CEC program from the beginning
Alianza Educativa	2	- The board of this CMO has members from four prestigious institutions—the Universidad de los Andes and three high performing private schools (Colegio Nueva Granada, Colegio San Carlos, Colegio Los Nogales) - Has participated since 2000 in the CEC

		program
Don Bosco	2	- Foundation is associated with the Catholic "orden Saleciana," which works in poorest areas of the country - Foundation created in 1999 to participate in first bid for CECs - Teaching approach is drawn from the work of priest Don Bosco at the beginning of the 19th century
Fundación Educativa La Salle	1	- Created in 2002 to participate in third bidding - The Foundation is comprised of "Hermanos de las Escuelas Cristianas," who trace their origins to 1681 and priest Juan Bautista de la Salle
Total	11	
Source: Adapted from Edwards (2014).		

Table 3: Comparison of teachers' employment conditions in Public and Charter Schools in Bogotá		
Dimension	**Public School**	**Charter**
Teacher age (in years)	44.4	35.2
Teacher years of experience	19.3	11.4
Years at school	8.3	4
Hours/week spent at school	30.3	42.9
Hours/week spent in class	23.8	31.2
Salary (in multiples of the minimum wage)	83.2 % of teachers earn between 2 and 6 multiples of the minimum wage	66.5% of teachers earn 2 multiples of minimum wage or less
Union membership (in percent)	Yes: 77.1 No: 22.9	Yes: 0.7 No: 99.3

Source: Adapted from Termes, Bonal, Veger and Zancajo (2015).

Note: According to the Banco de la República of Colombia (n.d.), the minimum wage for was approximately USD$300/month ($600,000 Colombian pesos) in 2014, the year of data collection for Termes et al. (2015). The average exchange rate for 2014 was approximately USD$1 = $2,000 Colombian pesos (Trading Economics, 2016).

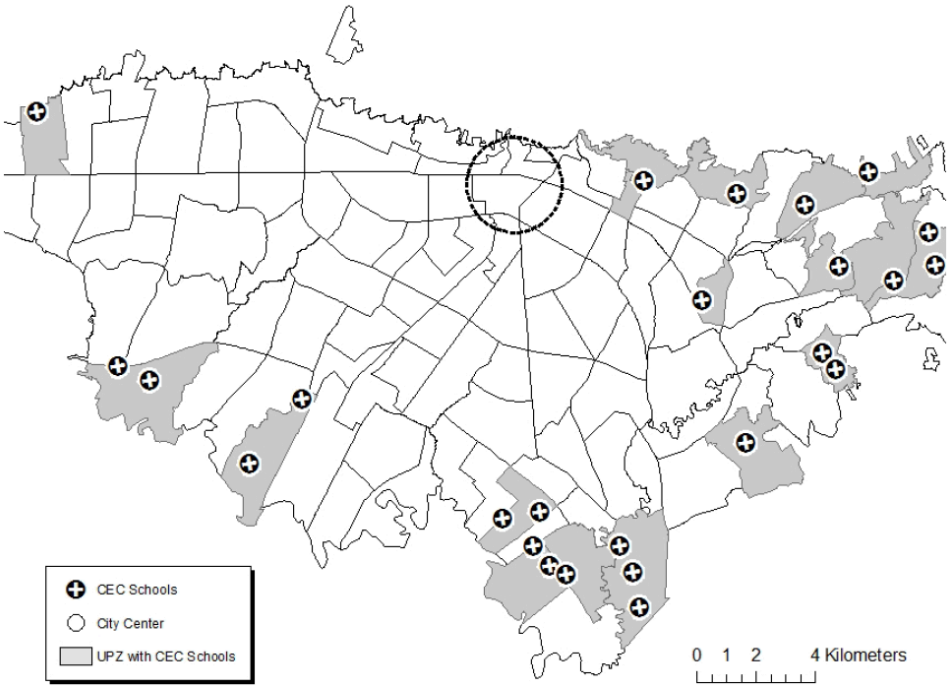
Table 4: Non-pedagogical Resources Offered by Concession Schools in Bogotá		
No.	**Resources**	**Example**
1	Donations	For school uniform assistance, sport team uniforms, food donation to needy families
2	Student nutrition	Second school meal/snack
3	Parental engagement	Home visits*, parents workshops on reading and writing including visits to local library to check out books
4	Student health	Nurse*, social worker*, psychologist**
5	Supplemental medical services	Dental check-ups, ophthalmologist, support for prosthesis
6	Special needs services	"Super room" for students with disabilities
7	After-school clubs	Free-time guidance, musical band, orchestra, dance club
8	Weekend engagement	Friday and Saturday work with students on math, English, technology, and reading-writing lessons
9	Religious services	Values training, first communion clothing, involvement of church or local parish in school
10	Transportation	Buses for excursions***
11	Post-secondary support	Student scholarships (e.g., through alumni connections)
12	Teacher support	In-school food subsidy, professional development, interest-

		free loans to teachers for post-bachelor study/specialization

Sources: Authors.

Notes: * TPS may also offer or engage in this activity. ** in TPSs, there is typically either a social worker or a psychologist with the title of orientor. ***The Secretary of Education of Bogotá provides transportation to TPSs for excursions but not to CECs, and CEC funding does not factor in transportation costs.

Figure 1: Spatial Distribution of Concession Schools in Bogotá



Note: North on this map corresponds to the left side. The subdivisions depicted are UPZs, the smallest subdivision within the city; they are used by city officials for planning purposes. UPZs "are defined such that the urban and economic characteristics of the housing units within them are very similar" (Bonilla, 2011, p. 17).

Source: Bonilla (2011).