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A Preliminary Examination of Citizen Orientation and Multiple Dimensions of Organizational Performance

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ABSTRACT
In this article, I discuss citizen orientated public management in relation to extant frameworks and theories in public management and organization research, including the role of the public servant, collaborative public management, citizen coproduction, and relational bureaucracy. Following the discussion, I hypothesize about the relationship between public organizations’ citizen orientations and multiple dimensions of organizational performance. I use data from approximately 900 New York City elementary and middle schools from 2008 to 2011 to examine the relationship. Preliminary findings indicate that a citizen orientation is positively related to multiple dimensions of public organization performance.

KEYWORDS
Citizen orientation; organizational performance; public management; education

Introduction
Researchers have long been interested in the ways organizations obtain, process, and use information. Much of modern organization theory views organizations as systems designed to gather and process information (e.g., Daft & Weick, 1984; March & Simon, 1958; Simon & Barnard, 1976; Weick, 1976, 1995), which subsequently learn (e.g., Argyris & Schön, 1978; Choo, 2001; Huber, 1991; Levitt & March, 1988; March, 1991) and make the strategic changes necessary to sustain or improve performance (e.g., Fiol & Lyles, 1985; Hrebiniak & Joyce, 1985; Miles, Snow, Meyer, & Coleman, 1978). In the era of performance management, public administration scholars have been particularly interested in both how and why public organizations use information and information’s relationship with public service provision (see Heinrich, 1999; LeRoux & Wright, 2010; Moynihan, 2008; Moynihan & Pandey, 2010).

At the same time, public administration scholars have examined the relationship between public servants and the recipients of public goods and services. Specifically, scholars are paying increasing attention to the role of citizen engagement and citizen participation in the production of public goods and services (e.g., Vigoda, 2002; Yang & Callahan, 2007; Yang & Pandey, 2011). However, we do not completely understand how public organizations might use relationships with citizens, specifically the citizens they serve, to enhance organizational performance.

In fact, some scholars point out that there might be a tension between organizational performance and citizen engagement. If citizen participation and engagement efforts are “…not carefully designed or implemented, it may delay decisions, increase conflict, disappoint participants” (Yang & Pandey, 2011, p. 880). Furthermore, while citizen participation and involvement in decision-making by public institutions are congruent with normative values in a democratic society, we still are not certain what, if any, impact they have on the performance of public organizations.

To better understand how the relationship between a public organization and the citizens it serves might facilitate organizational performance, I draw on the market orientation construct (Jaworski & Kohli, 1993; Kohli & Jaworski, 1990; Narver & Slater, 1990). I extend the concept to public organizations and develop what I call a citizen orientation. The market orientation construct was developed to operationalize the extent businesses gather and use information from their customers. The three cornerstones of the market orientation construct are: (1) gathering information from customers; (2) disseminating information internally; and (3) acting on the information (Kohli & Jaworski, 1990). The construct captures an organization’s proactivity to better meet the needs of those they serve. I

This market orientation is a construct distinct from general free market principles.
argue that a public organization following the same pattern of proactive information gathering and use has a citizen orientation. In this article, I ask: What is the relationship between a citizen orientation and the performance of public organizations?

Market orientation has not been widely used or discussed in research on public and nonprofit organizations (for exceptions, see Balabanis, Stables, & Phillips, 1997; Caruana, Ramaseshan, & Ewing, 1997; Shoham, Ruvio, Vigoda-Gadot, & Schwabsky, 2006; Wood, Bhuian, & Kiecker, 2000; Yang & Callahan, 2007; Yang & Pandey, 2011). While there are major differences between the customers of private organizations and the citizens served by public organizations, I argue that market orientation might be useful in understanding how a public organization’s orientation toward citizens facilitates performance.

In addition, I will discuss citizen orientation’s conceptual overlap with both empirical and normative theories in the extant public administration and organization research, including the new public service (e.g., Denhardt & Denhardt, 2000), collaboration (e.g., Emerson, Nabatchi, & Balogh, 2012), citizen coproduction (e.g., Bovaird, 2007; Sharp, 1980), and relational bureaucratic organizations (e.g., Douglass & Gittell, 2012; Gittell & Douglass, 2012). Cooper, Bryer, and Meek (2006) observe that these frameworks have been hard to operationalize since they are broadly specified and sometimes lack conceptual clarity. I will discuss ways that citizen orientation might be used to operationalize specific aspects of these frameworks and theories.

For public organizations, information that facilitates the delivery of public goods and services might be obtained directly from the recipients of those services. For instance, in public education, teachers and school administrators can learn about students’ learning needs directly from parents. In policing, police officers can learn about communities’ needs directly from members of the neighborhoods they serve. For organizations that provide public goods and services directly, information from the citizens they serve might help the organization identify the programs or initiatives that are working and those that are failing. A citizen orientation might help an organization identify future challenges or opportunities. Thus, an empirical examination of the relationship between an organization’s citizen orientation and organizational performance will provide researchers with a better understanding of how citizen participation and engagement can enhance organizational performance through information exchange.

Following this discussion, I utilize 3 years of observations from approximately 900 New York City middle and elementary schools to empirically examine the relationship between a school’s citizen orientation and the performance of the organization.

I proceed as follows. First, I will discuss market orientation and describe how a public-sector analogue, citizen orientation, might be useful in public administration scholarship. I will discuss how the citizen orientation construct might be useful in exploring the citizen relationships with public servants and organizations, collaborative public management, the coproduction of public goods and services, and the relational design of bureaucratic institutions. Second, drawing on previous scholarship, I hypothesize about citizen orientation’s relationship with organizational performance. Third, I describe the data and variables used to analyze the hypotheses. Finally, I conclude the article with discussion of the limitations of the current project, as well as steps for future research.

Literature

Market orientation and public organizations: a citizen orientation

Kohli and Jaworski (1990) define market orientation as the organization wide: (1) generation of market intelligence that pertains to current and future customer needs; (2) dissemination of the information throughout the organization; and (3) response to these needs. Narver and Slater (1990) take a slightly broader view, arguing that market orientation is the culture that produces the behaviors that create superior value for customers. The common conceptual space shared by both definitions is that organizations develop an orientation toward those they serve by obtaining information about customer needs and maintaining the flexibility to meet these needs. In its essence, the construct allows researchers to operationalize the degree to which organizations proactively gather and utilize information in order to respond the needs of those they serve.

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2While the term “client orientation” also might seem appropriate in extending the market orientation to public organizations, there are concerns with calling those who receive public services “clients.” According to Vigoda (2002), “the term client, or customer, which is so applicable in the private sector..., contradicts the very notion of belonging, contribution to society, and self-derived participation in citizenry actions. When someone is defined as a client, he or she is not actively engaged in social initiatives, but is merely a passive service (or product) consumer, dependent on the goodwill and interest of the owner.” (p. 534)
How might we apply this concept to public organizations? Like the nonprofit sector, the “market” from which public organizations obtains resources is different from the “market” that organizations serve. In applying the market orientation concept to the nonprofit sector, Gainer and Padanyi (2005) state, “it is difficult to define the market towards which an organization might be oriented inasmuch as most nonprofits engage several markets at once” (p. 855). In applying the market orientation construct to the nonprofit and voluntary sector, Shoham et al. (2006) stated that the previous conceptualization of market orientation was, “more in tune with the business sector…” and research extending the construct to the nonprofit sector “…needed to consider different orientations—including both a donor and a volunteer orientations—should be conceptualized as extension of the market orientation construct” (p. 470). Likewise, an extension to the public sector requires us to understand an organization’s orientation toward citizens as opposed to markets. This natural extension might be called the citizen orientation of a public organization.

Obviously, there are considerable differences between a citizen orientation and the market orientation construct from which it is extended. These differences arise from the contextual differences among public and private organizations—and the fact that responding to markets is substantively different from responding to citizens (Yang & Pandey, 2007). First, there are differences among public and private organizations with respect to the accountability systems in place. Private organizations are, in theory, held accountable by the marketplace. In contrast, a citizen-oriented public organization might not obtain resources directly from only the citizens they serve. Thus, organizational performance is not linked directly to obtaining resources. On the other hand, there are still other mechanisms of accountability and control for public organizations, ranging from political principals to interest or advocacy groups formed by the constituents they serve.

Second, there is no financial bottom line for most public organizations that facilitates a clear assessment of performance. There are, however, still metrics we can use to assess the performance of public organizations. Performance scorecards (e.g., Gilmour & Lewis, 2006), citizen satisfaction surveys, as well as more objective metrics, such as school test scores and pass rates (Meier & O’Toole Jr, 2001; Sun & Van Ryzin, 2012), have all been used to assess the performance of public organizations.

Third, unlike many private organizations, some government agencies, in particular those related to social services and education, have identifiable groups of citizens they serve. These citizens qualify for the goods and services they receive based on legally specified criteria. For instance, only those living in a particular geographic area can attend a particular school, or only those earning below a specific dollar amount might qualify for public assistance. On the other hand, the markets served by private organizations might be more dynamic, making them, generally, more susceptible to exogenous shocks. Citizens served by public organizations have fewer choices in how they receive public goods and services. In contrast, private organizations that face market competition might be more susceptible to exogenous shocks and, as a consequence, must be able to respond accordingly (Jaworski & Kohli, 1993).

Despite the substantive differences between the market orientation of the private organization and the citizen orientation of a public organization, the essence the constructs is essentially the same: Proactively obtaining information from those served and utilizing the information as a means of sustaining and enhancing organizational performance.

Before I discuss how a citizen orientation is related to the performance of a public organization, I will discuss how the citizen orientation might be useful in concert with other theoretical frameworks already in use in public administration scholarship.

**Citizen orientation and new public service**

Since public administration’s founding as a field, scholars have made normative arguments concerning the relationships between public administrators and citizens. On one hand, early scholars advocated a neutrally competent public service, one disconnected from politics and focused on executing the law efficiently and effectively (Wilson, 1887). Overtime, however, scholars began to see that politics and administration could not be separated (Waldo, 1984) and began suggesting a more active role for the public servant with respect to advocating on behalf of those they serve (see Mosher, 1975).

One recent example is Denhardt and Denhardt’s (2000) description of a New Public Service, the precursors of which include theories of democratic citizenship, models of community and civil society, and organizational humanism and discourse theory. The

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3This is not to say that exogenous shocks never affect public organizations. A notable example is the “shock” that occurred when families displaced by hurricane Katrina relocated to Houston and other areas of Texas and enrolled children in the local schools.
authors’ vision of a New Public Service includes several key tenets related to the relationship between public servants and those they serve. First, the role of the public servant is to help citizens articulate their shared interests, rather than control or steer society. Second, public interests are the aim, not the by-product of administration. Third, public servants do not merely respond to the demands of “customers,” but instead should focus on building collaborative relationships with the citizens they serve. Fourth, instead of valuing productivity, people should be valued in order to establish collaborative processes that can lead to productivity gains in the long term (for the complete list of the tenets of “New Public Service,” see Denhardt & Denhardt, 2000, pp. 553–555).

While citizen orientation does not capture the full scope of the “New Public Service” ideal, there is congruence on the emphasis in relying on the citizens to understand their needs in order to better meet the their needs. Thus, citizen orientation seems to be one way we might be able to operationalize the responsiveness dimension of the new public service ideals.

**Citizen orientation and citizen collaboration**

Collaborative public management has been defined in several ways. For instance, McGuire (2006) describes collaboration as “the process of facilitating and operating in multiorganizational arrangements in order to remedy problems that cannot be solved—or solved easily—by single organizations” (p. 33). By this definition, collaboration is limited to processes initiated through formal government and nongovernmental organizations (see also Ansell & Gash, 2008). A more recent definition, however, is broader and allows room for citizens in the management process. Emerson et al. (2012) define collaborative governance as:

> “The processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished” (p. 2).

This definition incorporates citizen engagement and participation in the study of collaborative governance (Emerson et al., 2012). A citizen orientation reflects responsiveness to the needs of citizens. There is, however, a clear distinction between citizen orientations and collaboration. According to Vigoda (2002), responsiveness and collaboration are not mutually exclusive constructs, and collaboration is founded on responsiveness, even though collaboration goes considerably beyond simply “responding” to citizens (p. 534). A citizen orientation might be considered a precondition to collaboration with citizens in the provision of public goods and services.

**Citizen orientation and coproduction of public goods and services**

Whitaker (1980) describes the coproduction of public services as, “the active involvement of the general public and, especially, those who are to be the direct beneficiaries of the service” (p. 242) (also see Bovaird, 2007; Brudney & England, 1983; Ferris, 1984). Sharp (1980) argues that coproduction is most visible in public service areas where the objective of the public organization is the transformation of the individual. According to Pestoff (2006), coproduction differs starkly “from the traditional model of public service production in which public officials are exclusively charged with responsibility for designing and providing services to citizens, who in turn only demand, consume and evaluate them” (p. 506).

Coproduction is a process characterized by a dyadic relationship between governments and citizens. Operationalizing a citizen orientation within the coproduction framework allows us to examine one aspect of the coproduction process—organizations’ assessments of citizen needs and response to those needs.

**Citizen orientation and relational bureaucracy**

While it has not yet gained traction in the current public administration literature, the relational bureaucratic organization framework might be another way to understand the importance of a citizen orientation. In an attempt to overcome the shortcomings of both the traditional bureaucratic and the relational (or network) models of organizations, Douglass and Gittell (2012) have advanced a hybrid organizational structure referred to as the relational bureaucratic model. While the complete model is beyond the scope of this article, the model’s perspective on relational coproduction between workers and customers is instructive in understanding how a citizen orientation might support coproduction through information use.

In a traditional bureaucratic model, the worker has power over, rather than power with, the organization’s customers. In the typical relational mode, the relationship is defined in terms of personal reciprocity, or acting based on personal rather than organizational criteria. In the relational bureaucratic model, the relationship between workers and customers represents a shared interest in the organizational outcome (Douglass & Gittell, 2012). According to Douglass and
Gittell (2012), “in the context of mutual respect, each party brings distinct knowledge to the table, contributing to the establishment of shared goals and enabling responsiveness to customer needs” (p. 716).

In contrast, traditional bureaucratic organizations are characterized by formal rules, functional specialization, hierarchy, and professionalism among organizational members (Max, 1947). In the traditional model, the organization knows best. In the relational bureaucratic model, relationships with citizens can be used to generate knowledge that can be used by the organization to serve. A citizen orientation does not completely capture the full scope of relational bureaucracy’s conceptualization of relationships between workers and customers, but a citizen orientation might allow us to operationalize an aspect of the organization’s responsiveness to citizen needs.

The previous discussion demonstrates the potential utility of the citizen orientation construct for both normative theory and empirical research. First, normative theory has suggested that rather than simply administer programs, public organizations must serve the citizen. Second, the citizen orientation might be used to operationalize specific aspects of the collaboration, citizen coproduction, and relational bureaucracy frameworks.

One of the challenges to studying these theories and frameworks is that they are complex processes—not just variables that can be easily operationalized. By attempting to operationalize a citizen orientation of public organizations and focus narrowly on one aspect of the relationship, we might enhance our knowledge within all of these theories and frameworks. I will now consider the relationship between a citizen-oriented public organization and organizational performance.

**Citizen orientation and public organization performance**

A number of studies have examined the direct impact of market orientation on performance. For example, Caruana, Ramaseshan, and Ewing (1998) found market orientation was positively related to the performance of academic departments, using both a perceptual measure department functioning by department heads and the obtainment of nongovernmental grants. Wood et al. (2000) found that a market orientation was positively associated with organizational performance of nonprofit hospitals.

While there have been limited studies on how information received from citizens can enhance performance, other theories provide evidence that proactively seeking and using information might enhance organizational outcomes. The prospector strategic position is useful in understanding how proactive information gathering and use can facilitate performance (Miles et al., 1978). Prospector organizations determine “how to locate and develop product and market opportunities” and “avoid long-term commitment to a single technological process” (pp. 552–553). Prospector try to “facilitate rather than control organizational operations” (p. 553). Prospector organizations are associated with innovative approaches and an orientation toward exploiting environmental opportunities. There is a key distinction, however, between the prospector strategic orientation and the citizen orientation. The prospector strategic position seeks information from a broadly defined environment, where the citizen orientation construct just considers information from those who the organization serves. Thus, while they are similar, they are conceptually distinct.

Utilizing two years’ worth of data from 69 English local governments, Walker, Andrews, Boyne, Meier, and O’Toole (2010) found the strategy content of the prospector is positively associated with the Core Service Performance of English local governments. In other research contexts, the relationship between the prospector strategy and organizational performance has not been as evident. In their study of school-district performance, Meier, O’Toole, Boyne, and Walker (2007) found that the prospector strategic position was not positively associated with the most salient performance measure—the total district pass rate. In contrast, the prospector strategic position was positively associated with high-end measures of performance, such as SAT scores. Despite these mixed findings, the prospector strategic position does give us theoretical reasons to believe that organizations that proactively engage citizens might have higher levels of organizational performance.

There are a number of ways a citizen orientation might positively affect the performance of public organizations. Drawing from Jaworski and Kohli (1993), there are two mechanisms in the market orientation framework I can extend to citizen orientation that could drive performance. First, an organization that is citizen oriented is better suited to identify and respond to the needs of the citizens. As a consequence of being proactive in addressing the needs of the citizens they serve, these organizations will perform at higher levels. This occurs because they have more specific knowledge about citizen needs, are proactive in making changes, can uncover opportunities to enhance performance, and can better meet the challenges in providing high levels of service. I test the following hypothesis:
H1: The citizen orientation of public service organizations is positively associated with higher levels of organizational performance.

This article will look at two dimensions of organizational performance. First, since I am looking at schools, I will examine the effect of citizen orientation on school test scores. Second, I will examine the relationship between citizen orientation and parent satisfaction.

Client orientation and student stability

In addition to the direct effect of a citizen orientation on organizational performance, I expect that the magnitude of citizen orientation’s effect on performance is contingent upon certain organizational characteristics. Specifically, proactive information gathering from citizens is likely to have a larger effect on organizational performance when there is a high-level of instability among the constituents to which the service is provided. In education, health, and other social service organizations, when organizations provide services to a stable clientele, the information gathered from the citizens remains within the organization. On the other hand, when new citizens are constantly entering a system as others exit, information gathering is going to have a greater effect on performance as information from previous years loses its value. As a consequence, I test the following relationship.

H2: The effect of citizen orientation on performance will be greatest when there are low levels of client stability.

There are other indirect mechanisms through which a citizen orientation might affect performance. These include the psychological and social benefits it provides employees. According to Jaworski and Kohli (1993):

“[A] market orientation is argued to lead to a sense of pride in belonging in which all departments and individuals work towards the common goal of satisfying customers. Accomplishment of this objective is posited to result in employees sharing a feeling of worthwhile contribution, a sense of belongingness, and, therefore, commitment to the organization” (p. 57).

In public administration scholarship, organizational commitment has been found to be positively affect organizational outcomes (e.g., Balfour & Wechsler, 1996). The sense of accomplishment public employees get from meeting the needs of the citizens they serve might be another way that a client orientation can enhance organizational performance (e.g., Grant, 2007). Finally, scholars have found that a marketing orientation is positively related to organizational learning, organizational innovation, and organizational entrepreneurship (Gainer & Padanyi, 2005). While beyond the scope of this current article, these are mechanisms through which a citizen orientation might enhance organizational performance. There is sufficient theory and evidence to suggest that a citizen orientation is positively related to organizational performance.

Data and method

To test the hypothesis, I use: (1) archival data available from the New York State Department of Education and the New York City Department of Education and (2) survey responses to New York City School’s annual school environment survey. All of the variables are aggregated at the school level. The unit of analysis for the study is the school.

Citizen orientation

A citizen orientation is the degree to which a public organization seeks to gather information from the citizens it serves and then uses the information to better meet citizen needs. A citizen orientation is characterized by responsiveness to the citizens they serve. As an example, a citizen-oriented public school is one where teachers and administrators obtain information from parents/guardians about the learning needs of students. As opposed to superficial contact with parents, the information obtained is used to help meet the needs of the students. Furthermore, the organization is proactive in sharing information with parents.

To operationalize organizations’ citizen orientations, I use data from the New York City “School Environment Survey.” All parents and teachers, as well as students in grades six through twelve, were invited to take the survey. Information from the survey provides feedback from key stakeholders (parents, teachers, and students) about the school’s learning environment. I use the school-level averages of teacher responses to the following 4-point Likert-scale items to construct a measure of an organization’s citizen orientation.4

1. Obtaining information from parents about student learning needs is a priority at my school.
2. Teachers and administrators in my school use information from parents to improve instructional practices and meet student learning needs.
3. My school communicates effectively with parents when students misbehave.

4I only used schools where at least 25% of the teachers participated in the survey to ensure representativeness.
Together, these items measure the degree to which the school obtains information, uses information, and shares information with parents (citizens). In the absence of a previously used measure of citizen orientation, these items represent a strong conceptual fit with the citizen orientation construct and will be used to operationalize the variable.

Table 1 provides the pattern matrix of factor loadings, as well as the estimated uniqueness of each item from of a common factor model with a one-factor solution using the maximum-likelihood method of factor extraction. The eigenvalue of the factor is 2.66 and explains most of the variation among the three items. Additionally, Table 1 reports the item correlations and a coefficient alpha of 0.95, indicating high levels of internal consistency. Bartlett scores are used to generate values for each school.

### Performance

Many scholars have used school test scores and pass rates as salient indicators of organizational performance (e.g., Meier & O’Toole, 2001, 2003). All New York City students in grades three through eight are required to take both an English Language Arts (ELA) and a Mathematics (Math) standardized test. The pass rates for both exams are available from the New York State Department of Education. The combined percentage of New York City elementary and middle school scoring at levels three or level four constitutes the overall student pass rate for each exam. Recently, Sun and Van Ryzin (2012) used these measures in their study of performance management and school performance. In addition to the overall pass rates for each school, I use the percentage of students who scored at a level four to construct a high pass variable for both the ELA and MATH exams. Since grades three through eight use different test formats than high school students, this study will only examine elementary and middle schools.

The second dimension of performance I examine is parent satisfaction. This measure is constructed using school-level parent responses (averages) to nine Likert-scale questions on the New York School Environment Survey. The items and the common factor model from which the factor is extracted are shown in Table 2. Similar items were used by Favero and Meier (2013) in previous research to operationalize parent satisfaction. Together, these items load onto a single factor with an eigenvalue of 7.642. The measures are generated using Bartlett scoring.

### Parental engagement

As mentioned in my discussion of the coproduction literature, the relationship between schools and parents is dyadic. The client orientation attempts to measure the school’s obtainment and responsiveness to information obtained from parents. On the other hand, parents themselves might engage with the schools and be very active in their child’s education. It is important to control for parent engagement of the school in order to estimate the independent effect of a school’s client orientation on performance. To measure parental involvement in each school, I use the percentage of parent responses to the New York City School Environment Survey returned to the school. While I do not have a direct measure of each school’s level of parental

### Table 2. Parent Satisfaction—Common Factor Model.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor</th>
<th>Uniqueness</th>
</tr>
</thead>
<tbody>
<tr>
<td>How satisfied are you with the following? (4-point Likert)</td>
<td>0.907</td>
<td>0.177</td>
</tr>
<tr>
<td>The quality of your child’s teacher this year</td>
<td>0.949</td>
<td>0.099</td>
</tr>
<tr>
<td>The level of assistance your child receives when he or she needs extra help with classwork or homework</td>
<td>0.954</td>
<td>0.09</td>
</tr>
<tr>
<td>How well your child’s school communicates with you</td>
<td>0.93</td>
<td>0.136</td>
</tr>
<tr>
<td>Your opportunities to be involved in your child’s education</td>
<td>0.944</td>
<td>0.109</td>
</tr>
<tr>
<td>The education your child has received this year</td>
<td>0.833</td>
<td>0.306</td>
</tr>
<tr>
<td>To what extent do you agree with the following? (4-point Likert)</td>
<td>0.931</td>
<td>0.134</td>
</tr>
<tr>
<td>The school has high expectations for my child</td>
<td>0.924</td>
<td>0.147</td>
</tr>
<tr>
<td>The school clearly communicates its expectations for my child’s learning to me and my child</td>
<td>0.913</td>
<td>0.16</td>
</tr>
<tr>
<td>My child’s teacher gives helpful comments on work and tests</td>
<td>0.913</td>
<td>0.16</td>
</tr>
<tr>
<td>My child is learning what he or she needs to know to succeed in later grades or after graduating high school</td>
<td>0.913</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Note. CFM = common factor model.

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3In contrast with principal component analysis, the common factor model allows for the estimation of both common and unique variances (Brown, 2006).
engagement, the response rates serve as proxy measures. I expect that schools with response rates at 80% have higher levels of parent engagement than schools with response rates of only 20%.

**Lagged performance**

One way scholars have sought to limit threats of endogeneity to models of management and performance has been to include an autoregressive term—or a lagged measure of performance (Meier & O'Toole, 2001; Sun & Van Ryzin, 2012). Thus, I will also estimate models with lagged dependent variables.

In addition to these key independent and dependent variables, I will also control for a number of variables that are part of the standard education production function (Hanushek, 1979).

**School demographic data**

The New York State Department of Education provides the following demographic variables for each school: *percentage of black students, percentage of Asian students, percentage of white students, percentage of Hispanic students, percentage of multiracial students, percentage of students with limited English proficiency, percentage of students eligible for free lunch, percentage of students enrolled the previous year, and percentage of students eligible for reduced lunch.*

Additionally, dummy variables are generated to measure the *percentage of students receiving public assistance.* Ten intervals ranging from 1 to 10, where 1 indicates a school with a poverty rate ranging from 1 to 10% and 10 represents a school with a poverty rate between 91 and 100%. Citizen characteristics have been suggested to be important variables in the performance of public organizations (Heinrich & Lynn, 2000), and there is evidence of this from previous research in the performance of Texas schools (Meier & O'Toole, 2003).

**Human capital quality**

Human capital refers to the knowledge, training, skills, and other abilities that allow individuals to accomplish the task at hand (Becker, 1962). Human capital quality is operationalized as the quality of the organization’s employees. The New York State Department of Education staffing data also contains measures that can be used to assess the different levels of human capital available in an organization. These include the *percentage of teachers with no valid teaching certificate, percentage of individuals teaching whose certification has expired, percentage of teachers with fewer than three years teaching experience, and the percentage of teachers with a master’s or doctorate.*

**School type**

This study examines schools with students in elementary or middle grades. Dummy variables are created for the following categories *elementary schools and middle schools.* It is possible for a school to be coded twice if the school has elementary grades as well as middle grades.

Table 3 provides descriptive statistics for all the variables and Table 4 provides a correlation matrix of the bivariate relationships among the variables.

**Analysis**

To test the hypothesis, I use the aforementioned data from New York City Schools and the New York State Department of Education. Across the models, there are between 2672 and 2797 observations. All the models estimated are estimated with pooled OLS regression. Furthermore, I estimate and report robust standard errors clustered by school.

**Direct Relationship**

Table 5 contains models testing the direct effect of citizen orientation on organizational performance (H1). Models...
Table 4. Correlation Matrix.

|                 | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 ELA pass (%)  | 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 2 ELA high pass (%) | 0.62| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 3 Math pass (%)  | 0.92| 0.47| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 4 Math high pass (%) | 0.79| 0.83| 0.72| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 5 Citizen orientation | 0.38| 0.46| 0.30| 0.45| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 6 Parent participation | 0.19| 0.27| 0.20| 0.31| 0.39| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 7 Student stability (%) | 0.45| 0.14| 0.48| 0.27| 0.02| -0.06| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 8 Free lunch (%)  | -0.53| -0.59| -0.38| -0.55| -0.34| -0.03| -0.17| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 9 Reduced lunch (%) | 0.38| 0.23| 0.32| 0.36| 0.12| 0.07| 0.15| -0.37| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 10 Public assistance (1–10) | -0.56| -0.62| -0.42| -0.58| -0.35| -0.03| -0.22| 0.87| -0.33| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 11 Limited English (%) | -0.22| -0.20| -0.07| -0.12| -0.14| 0.11| -0.05| 0.42| -0.18| 0.43| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 12 Black (%)      | -0.29| -0.36| -0.32| -0.47| -0.24| -0.24| -0.13| 0.24| -0.15| 0.26| -0.46| 1.00|     |     |     |     |     |     |     |     |     |     |     |     |     |
| 13 Hispanic (%)   | -0.38| -0.40| -0.24| -0.39| -0.20| -0.01| -0.09| 0.48| -0.35| 0.49| 0.61| -0.40| 1.00|     |     |     |     |     |     |     |     |     |     |     |
| 14 Asian (%)      | 0.42| 0.44| 0.39| 0.61| 0.18| 0.16| 0.15| -0.27| 0.44| -0.24| 0.16| -0.46| -0.32| 1.00|     |     |     |     |     |     |     |     |     |     |
| 15 Attendance Rate | 0.44| 0.49| 0.40| 0.56| 0.32| 0.27| 0.09| -0.33| 0.30| -0.34| 0.07| -0.36| -0.20| 0.46| 1.00|     |     |     |     |     |     |     |     |     |
| 16 Suspensions (%) | -0.39| -0.37| -0.41| -0.41| -0.29| -0.29| -0.06| 0.14| -0.11| 0.17| -0.12| 0.23| 0.07| -0.21| -0.41| 1.00|     |     |     |     |     |     |     |     |
| 17 Student–teacher ratio | -0.04| -0.05| -0.11| -0.01| -0.04| -0.17| 0.04| -0.12| 0.12| -0.11| -0.14| -0.07| -0.05| 0.14| 0.10| 0.30| 1.00|     |     |     |     |     |     |
| 18 Total teacher turnover (%) | -0.28| -0.29| -0.27| -0.34| -0.21| -0.17| -0.05| 0.14| -0.19| 0.12| -0.02| 0.15| 0.19| -0.25| -0.29| 0.34| 0.15| 1.00|     |     |     |     |     |
| 19 Teachers w/expired certification (%) | -0.20| -0.29| -0.18| -0.30| -0.20| -0.22| 0.02| 0.12| -0.19| 0.12| 0.01| 0.12| 0.22| -0.25| -0.29| 0.31| 0.17| 0.37| 1.00|     |     |     |     |
| 20 Teachers w/less than 3 years experience (%) | -0.07| -0.22| -0.02| -0.19| -0.16| -0.15| 0.07| 0.07| -0.14| 0.05| 0.00| 0.02| 0.25| -0.18| -0.24| 0.27| 0.08| 0.50| 0.42| 1.00|     |     |
| 21 Teachers w/no certification (%) | -0.18| -0.26| -0.15| -0.26| -0.19| -0.19| 0.00| 0.12| -0.17| 0.12| 0.00| 0.13| 0.18| -0.24| -0.27| 0.26| 0.11| 0.35| 0.89| 0.37| 1.00|     |
| 22 Teachers w/Masters' or Doctorate (%) | 0.26| 0.32| 0.20| 0.37| 0.22| 0.19| 0.04| -0.25| 0.33| -0.25| 0.02| -0.25| -0.33| 0.39| 0.32| -0.27| -0.02| -0.41| -0.38| -0.62| -0.33| 1.00|
| 23 Middle School Students | -0.19| -0.25| -0.25| -0.23| -0.17| -0.33| 0.09| -0.02| 0.03| 0.00| -0.20| 0.10| 0.02| -0.07| -0.21| 0.49| 0.60| 0.27| 0.32| 0.25| 0.25| -0.20| 1.00|
| 24 Elementary School students | 0.20| 0.24| 0.26| 0.21| 0.13| 0.33| -0.04| 0.06| -0.04| 0.03| 0.18| -0.05| -0.05| 0.04| 0.24| -0.55| -0.63| -0.30| -0.35| -0.28| -0.25| 0.21| -0.65| 1.00|
Table 5. Citizen Orientation and Organizational Performance.

<table>
<thead>
<tr>
<th></th>
<th>ELA pass</th>
<th>ELA high pass</th>
<th>Math pass</th>
<th>Math high pass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) b</td>
<td>(2) b se</td>
<td>(3) b</td>
<td>(4) b se</td>
</tr>
<tr>
<td>Citizen orientation</td>
<td>1.90**</td>
<td>0.78** (0.15)</td>
<td>0.56**</td>
<td>0.21** (0.07)</td>
</tr>
<tr>
<td>Parent participation</td>
<td>0.03**</td>
<td>0.02** (0.01)</td>
<td>0.01</td>
<td>0.00 (0.00)</td>
</tr>
<tr>
<td>Lagged performance (t-1)</td>
<td>0.04**</td>
<td>0.03** (0.01)</td>
<td>0.04**</td>
<td>0.03** (0.01)</td>
</tr>
<tr>
<td>Student stability (%)</td>
<td>0.25**</td>
<td>0.11** (0.02)</td>
<td>0.07**</td>
<td>0.03** (0.01)</td>
</tr>
<tr>
<td>Free lunch (%)</td>
<td>-0.03</td>
<td>0.00 (0.01)</td>
<td>0.01</td>
<td>0.00 (0.01)</td>
</tr>
<tr>
<td>Reduced lunch (%)</td>
<td>0.19**</td>
<td>0.06 (0.03)</td>
<td>-0.08</td>
<td>-0.03 (0.01)</td>
</tr>
</tbody>
</table>

|                        | (5) b se | (6) b se      | (7) b se | (8) b se       |
| Public assistance (%)  |          |              |          |                |
| 7–10%                  | 16.96**  | 6.94** (1.96) | 18.25**  | 2.70+ (1.42)   |
| 11–20%                 | 12.01**  | 2.15+ (1.30)  | 9.00**   | 0.59 (0.72)    |
| 21–30%                 | 10.34**  | 2.49+ (1.10)  | 8.52**   | 0.92 (0.62)    |
| 31–40%                 | 8.28**   | 2.53+ (1.04)  | 6.16**   | 0.92+ (0.55)   |
| 41–50%                 | 6.73**   | 2.72+ (0.92)  | 4.97**   | 0.70 (0.51)    |
| 51–60%                 | 4.71**   | 1.25+ (0.76)  | 2.48**   | 0.17 (0.34)    |
| 61–70%                 | 4.76**   | 1.16+ (0.62)  | 2.42**   | 0.68+ (0.26)   |
| 71–80%                 | 2.16**   | 0.70 (0.49)   | 1.17**   | 0.22 (0.12)    |
| 81–90%                 | 0.00     | 0.15 (0.35)   | 0.37+    | 0.15 (0.12)    |

| Limited English (%)    | -0.34**  | 0.08 (0.02)   | -0.08    | -0.02 (0.01)   |
| Black (%)              | -0.13**  | 0.06 (0.01)   | -0.05    | -0.02 (0.00)   |
| Hispanic (%)           | -0.09**  | 0.04 (0.01)   | -0.04    | -0.02 (0.01)   |
| Asian (%)              | 0.15**   | 0.04 (0.01)   | 0.08**   | 0.04 (0.01)    |
| Attendance rate        | 100.84   | 53.92 (19.07) | 18.02+   | 6.03+ (2.69)   |
| Suspensions (%)        | -0.55**  | 0.09 (0.04)   | -0.06    | -0.02 (0.01)   |
| Student-teacher ratio  | -0.07    | 0.10 (0.08)   | -0.01    | -0.04+ (0.03)  |
| Total teacher turnover (% | -0.17**  | -0.05 (0.02)  | -0.02    | -0.01+ (0.01)  |
| Teachers w/ expired certification (%) | 0.02     | 0.04 (0.05)   | -0.04    | 0.04 (0.01)    |
| Teachers w/ less than 3 years experience (%) | 0.00     | 0.03 (0.02)   | 0.00     | 0.00 (0.01)    |
| Teachers w/ no certification (%) | 0.00     | 0.02 (0.04)   | 0.05+    | 0.02 (0.02)    |
| Teachers w/ Masters’ or Doctorate (%) | -0.07**  | -0.05 (0.01)  | -0.04    | -0.02 (0.02)   |
| Elementary grades      | -1.95**  | -0.28 (0.31)  | -1.60    | -0.79 (0.13)   |
| Middle grades          | 2.20+    | -0.34 (0.54)  | 2.08+    | 0.44 (0.19)    |
| Constant               | -4.24    | 48.97 (16.46) | -15.03   | 8.29 (2.48)    |
| Observations           | 2797     | 2672          | 2797     | 2672           |
| R-squared              | 0.826    | 0.911         | 0.701    | 0.853          |

(+ = p < 0.10; * = p < 0.05; ** = p < 0.01).
1 and 2 examine the relationship between an organization’s citizen orientation and student pass rates on the ELA exam. Model 2 contains the lagged dependent variable. This model has an $R^2$ of 0.91. Model 2 demonstrates that citizen orientation has a positive, statistically significant relationship with pass rates on the ELA exam. The citizen orientation variable has a beta coefficient of 0.78 and is statistically significant at the 0.01 level. The relationship indicates that a one standard deviation increase in citizen orientation is associated with 0.78 percentage point increase in students who achieve a passing score on the standardized ELA exam. As expected, the parent participation variable is highly significant, although the effect is relatively small.

In addition to the overall pass rate, I examine the percentage of students that score a “high” pass on the ELA standardized exam. Models 3 and 4 examine the relationship between citizen orientation and the percentage of students receiving a high pass on the ELA exam. Model 4 contains the lagged dependent variable and has an $R^2$ of 0.85. In this model, citizen orientation has positive, significant relationship with the dependent variable. A one standard deviation change in citizen orientation is associated with .22 percentage point increase in students receiving a high pass on the ELA. The coefficient is statistically significant at the 0.01 level.

Models 5 and 6 examine the relationship between a citizen orientation and student pass rates on the standardized Math exam. Model 6 includes the lagged dependent variable. The $R^2$ of Model 6 is 0.87. In Model 6, we see that citizen orientation is positively and significantly related to organizational performance. The beta coefficient indicates that a one standard deviation increase in citizen orientation is associated with 0.61 percentage point increase in students who achieve a passing score on the standardized Math exam. The coefficient is statistically significant at the 0.01 level.

Model 8 demonstrates that a relationship between citizen orientation and student pass rates on the standardized Math exam at a high pass level on the Math exam is also positive and statistically significant. The model has an $R^2$ of 0.91. A one standard deviation increase in citizen orientation is associated with a 0.40 percentage point increase in students who achieve a high pass on the math exam. The coefficient is significant at the 0.01 level.

A second important indicator of organizational performance is the citizen assessment of how the organization is performing. Previous research indicates that these measures of performance are not always correlated with more objective measures—thus, creating the need to explore these different dimensions of performance (Favero & Meier, 2013). Table 6 presents the coefficients of the relationship among citizen orientation and citizen satisfaction. In Model 1, the beta coefficient on the citizen orientation variable is 0.24 and is statistically significant at the 0.01 level. The model has an $R^2$ of 0.55. Some might argue that satisfaction is itself a function of performance. As a result, I have specified a model that includes a lagged measure of performance on both the standardized ELA and Math exams. In Model 2, the relationship between citizen orientation and school performance remains statistically significant at the 0.01 level, although the magnitude of the effect decreases slightly to 0.22. The model has an $R^2$ of 0.56.

Overall, these models provide support for the hypothesis that a citizen orientation is positively associated with the measures of organizational performance examined (H1). The relationship is present across all models, even after controlling for parental engagement and including the lagged dependent variable. Together, the models in Tables 5 and 6 demonstrate a citizen orientation, characterized by proactive information gathering and use, is positively related to multiple dimensions of performance.

### Conditional relationship with student stability

To test the hypothesis that the relationship among an organization’s citizen orientation and organizational performance will be greatest when there is instability of amongst service recipients, I estimate models interacting citizen orientation and student stability. The results are available in Table 7. Model 1 demonstrates that as student stability increases, the effect of citizen orientation on the percentage of students who pass the ELA exam diminishes. This effect is statistically significant at the 0.01 level. Interestingly, the relationship does not hold when examining the effect of citizen participation on the percentage of students scoring at the high level. The effect of citizen orientation does not decrease as student stability increases.

When examining the effect of citizen orientation on the overall student pass rate on the math exam, we see...
evidence that the effect of citizen orientation is greatest when student stability is very low—or when there are large amounts of student turnover on a yearly basis. The effect is significant at the 0.01 level. There is a relationship of a different nature, however, when examining the effects on the interaction on the percentage of students who receive a high pass score on the Math exam. Model 4 in Table 7 demonstrates that at low levels of stability the effect is negative, however, but the effect increases as stability increases.

These models provide only mixed support for our hypothesis that citizen orientation’s relationship is conditional upon the level of student stability. Furthermore, no relationship was found when the interaction was examined with parent satisfaction as the dependent variable. These mixed findings suggest that citizen orientations might affect different dimensions of organizational performance differently under disparate conditions.

Discussion
Limitations and future research

There are a number of limitations of this article. First, the measures I use to construct the measure of an organization’s citizen orientation are drawn from secondary data. While there is a market orientation scale (Kohli, Jaworski, & Kumar, 1993), there is no such instrument to measure an organization’s citizen orientation. This represents an opportunity for future construct and measurement development. Furthermore, an instrument is needed that not only measures a public organization’s citizen orientation, but also responsiveness to other actors in the multi-stakeholder, multi-principal, environment in which they are situated. Such an instrument will enhance our knowledge of how public organizations’ and public managers respond not just to those they serve, but to their political principals and their employees.

Second, this article does not take into account formal school policies related to performance management practices (Sun & Van Ryzin, 2012). The next step for future research is to examine the degree to which organizational policies support an organization’s citizen orientation. Research has examined how the presence of formal performance management practices of the organization positively affects organizational performance (Sun & Van Ryzin, 2012). Yet, understanding how formal policies to manage performance information drive, support, or moderate an organization’s information exchange with citizens is an important step for future research.

Finally, while I attempt to control for parent engagement in my models, I can do so only having a proxy variable. Despite this shortcoming, it is important to try to isolate the effect of parental engagement in their child’s education on school performance from the school proactively gathering information from the parents and the presence of a citizen orientation.

Conclusion

This project is a preliminary first step to better our understanding of how public organizations’ orientations toward gathering and using information from the citizens they serve might affect performance. In addition to further theoretical and measurement development, there are a number of questions that need to be addressed in future research. First, what are the determinants or antecedents of a citizen orientation? What role does management and leadership play in facilitating a citizen orientation? What factors mediate or moderate citizen orientation’s relationship with organizational performance?

While only preliminary, this research provides support for a positive relationship between citizen orientation and organizational performance across multiple dimensions. Citizen orientation is both positively and significantly related to school test scores and measures of parent satisfaction. Furthermore, by probing the interaction among citizen orientation and student stability, I demonstrate that a citizen orientation has its greatest effect on school performance when student stability is low. This suggests that proactive information gathering and information use is a way that schools can overcome the challenge of having a constantly changing student body and where knowledge about students cannot accrue easily overtime.
Finally, as I discuss early on the article, the citizen orientation construct has considerable conceptual overlap with other theories and frameworks in public administration. The strength of the construct is its ability to define an orientation in a way that can operationalized for quantitative analysis. Scholars working within relational bureaucratic frameworks, theories of citizen coproduction, as well as organizational strategy might find ways to operationalize this construct in their future scholarship. Furthermore, by conceptualizing one specific construct, we might be able to place more conceptual structure on our future empirical work within the extant frameworks.

References


