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Water Utility Executive Leadership, Part 3: What CEOs Do

THIS ARTICLE IS THE THIRD
OF THREE THAT REPORT ON
THE FINDINGS OF THE
WATER RESEARCH
FOUNDATION REPORT
*WATER UTILITY EXECUTIVE
LEADERSHIP FOR THE
21ST CENTURY.*

In many ways, an organization’s success depends on the quality of its executive leadership. As noted in the 2008 *Effective Utility Management: A Primer for Water and Wastewater Utilities*, leadership is the “first key to management success” (USEPA et al, 2008). Although thousands of seminars and books explore leadership, few studies address drinking water utility executive leadership specifically, and hardly any examine empirically who water utility executives are, what they think, and how they behave on the job. *Water Utility Executive Leadership for the 21st Century*, a study sponsored by the Water Research Foundation (WRF), is a first step in addressing this need.

This article is the third and final in this series and follows “Water Utility Executive Leadership, Part 1: Who Our CEOs Are” (December 2013, p. 22) and “Water Utility Leadership, Part 2: What CEOs Think” (April 2014, p. 55) by exploring water utility chief executive officers’ (CEOs’) actions and how they choose to allocate their time inside and outside of their organizations. As with the first and second articles, this article is based on the WRF study and uses the same scientific survey of water utility CEOs supported by six case studies. The findings reported here depict the day-to-day work of utility executives in behavioral terms, rather than in terms of their formal responsibilities.



A full report of this project, *Water Utility Executive Leadership for the 21st Century* (4342), is available for free to Water Research Foundation subscribers by logging on to www.waterrf.org.

That is, this article explores water utility executive leadership not according to their organizational charts or job descriptions, but rather by looking at what CEOs actually do.

REVIEWING THE METHODOLOGY

As in the first and second articles, we define a water utility CEO as “an organization’s highest ranking professional who directs the drinking water

utility, exclusively or in combination with other utilities and/or services.” The study excludes elected officials and general-purpose city managers but does include public works directors who manage public water utilities alongside other services. A semistructured telephone interview survey of CEOs who lead water utilities remains the empirical centerpiece of this study, which used a randomized,

stratified sample of 300 US utilities drawn from the US Environmental Protection Agency Safe Drinking Water Information System. A total of 169 CEOs participated, for a participation rate of 57.9%, and 120 of those completed a follow-up questionnaire online, for a completion rate of 71.0%. In addition to the survey, six in-depth CEO profiles provide concrete illustrations of the data

Frontline Leadership in Large- and Medium-Sized Utilities

Interaction with frontline field, plant, and/or customer service personnel is an ordinary part of day-to-day work for leaders of small utilities. For executives in large- and medium-sized utilities, however, meaningful frontline leadership can require a commitment to systematic, regular interaction with frontline workers.

Anthony Bellitto, executive director of North Penn Water Authority (NPWA) in Lansdale, Pa., leads a medium-sized utility with 51 employees. NPWA holds semiannual all-hands breakfast meetings at which Bellitto addresses strategic and budgetary issues before the entire staff to “tell employees about what’s coming up and to quell any rumors that they may have heard.” Bellitto also arranges to have lunch at a local restaurant (at Bellitto’s expense) with each NPWA employee on his or her birthday each year. These birthday lunches make employees feel valued and help Bellitto connect on a personal level with his staff. Besides a birthday treat, these lunches give Bellitto an opportunity to talk with each employee about his or her experiences, goals, and ambitions in an informal setting and away from other staff. Employees can receive encouragement and mentoring through these meetings. Moreover, Bellitto regularly gains valuable organizational information from each part of his organization. For example, at one birthday lunch, an employee told Bellitto that he suspected another long-serving, well-liked employee of stealing fuel from NPWA but feared reporting his suspicions formally (likely because NPWA is a small, tight-knit organization). Bellitto brought up the issue informally during birthday lunches with other staff members and found that others shared the same unspoken suspicion. Subsequent investigation confirmed the theft with direct evidence, and Bellitto dismissed the offending

employee. The comfort and informality of the birthday lunch helped Bellitto get critical, frontline organizational information in a way that would have been difficult through more formal, hierarchical channels.

Frontline leadership is especially challenging in the largest utilities. Birthday lunches for each staff member are not possible for San Diego (Calif.) Public Utilities director Roger Bailey, who leads 1,600 employees in a hierarchy whose organizational chart is 59 pages long. To maintain communication with frontline employees, each quarter Bailey holds an hour-long, all-hands meeting with utility staff throughout the system, much as Bellitto does at the smaller NPWA. Bailey uses these meetings to update all employees on strategic developments that affect the utility, to acknowledge accomplishments publicly through awards and recognitions, and to field questions and feedback. San Diego’s utility workers are unionized, and “sometimes they ask very tough questions,” Bailey admits with a smile. Bailey’s approach to the all-hands meetings is consistent with a leadership style that emphasizes transparency about the organization’s goals and constraints. Employees at every level are aware of the utility’s place in the political life of San Diego. Senior managers embrace their roles as representatives of the utility in the political process and ambassadors in the community. Rather than trying to seal off his utility from its political environment, Bailey fosters a self-aware organization that advocates for its own mission—right down to the front line.

In 2013, Roger Bailey left San Diego Public Utilities to become general manager and chief executive officer at Central Contra Costa Sanitary District, Martinez, Calif.

presented. The six CEOs were chosen for their representation of a broad range of utility leadership. Further information about the study's methodology is included in the first article (Teodoro & Whisenant, 2013). Full methodological details are included in the final report for *Water Utility Executive Leadership for the 21st Century*, which is available from WRF (Teodoro, 2013b).

LOOKING AT TIME ALLOCATION

How do utility executives spend their time? What does an ordinary day or week on the job look like for a water utility CEO? The WRF survey asked CEOs to describe how they divided their time during a "typical work week" among four categories:

- Management and leadership of utility staff
- Planning, analysis, and regulatory compliance
- Direct, hands-on operations
- Interactions with people outside of the utility.

Figure 1 shows the weighted average allocation of time across these four categories. Data on time allocation were combined with a variety of other individual and utility data in a regression analysis to identify important correlates of executive behavior.

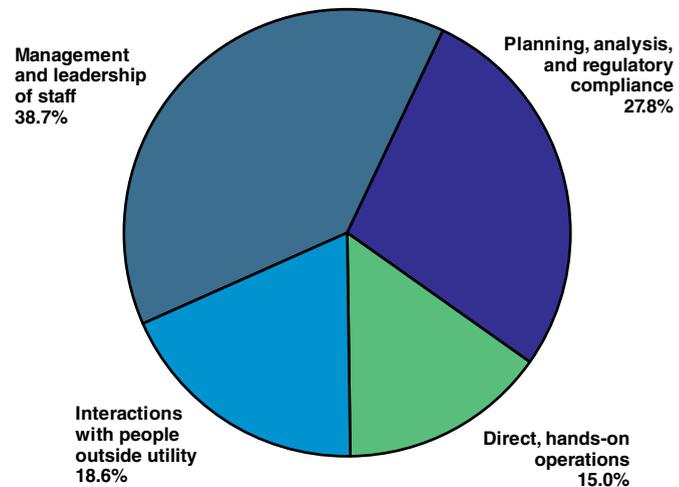
Management and leadership of utility staff. On average, CEOs report spending 38.7% of their time on management and leadership of utility staff. A variety of regression model specifications failed to identify important correlations, suggesting that internal management and leadership tasks require similar proportions of time across most utilities or that the factors explaining variation in management and leadership time allocation were not captured by the WRF study.

Planning, analysis, and regulatory compliance. CEOs report spending an average of 27.8% of their time on planning, analysis, and regulatory compliance. Statistical models of time allocated to these tasks generated one interesting and statistically significant

finding: the proportion of time that CEOs spend on these tasks declines as utility size increases, as seen in Figure 2. This result likely reflects the greater resources available to CEOs of large utilities, whereas in smaller utilities the CEO must "wear several hats" and play many roles.

Hands-on operations. On average, CEOs report spending 15.0% of their time on direct, hands-on operations. This proportion was surprisingly high—and also surprisingly, it was not significantly correlated with utility size. Special-district CEOs spend significantly less time on

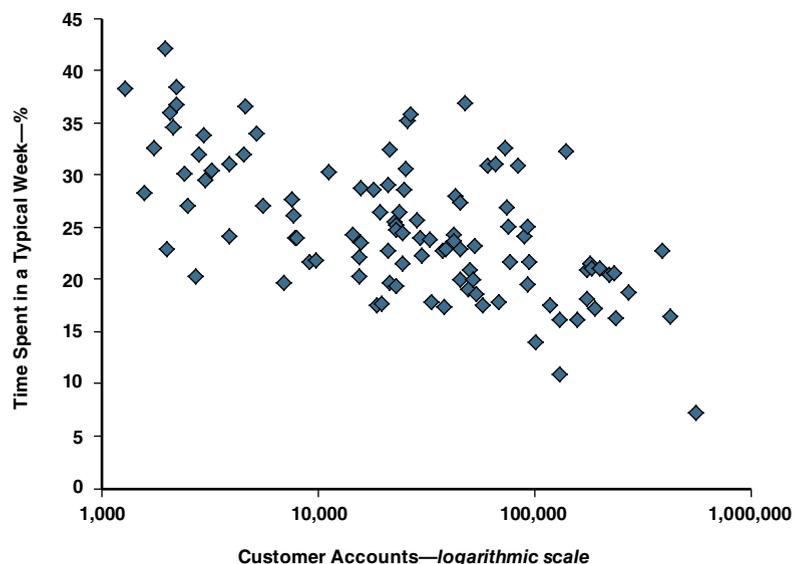
FIGURE 1 Average CEO time allocation



Source: CEO survey (n = 116).

Total may not equal 100% because of rounding

FIGURE 2 Estimated percentage of chief executive officer time spent on planning, analysis, and regulatory compliance by utility size



Source: Linear regression analysis of CEO survey; see full report for details

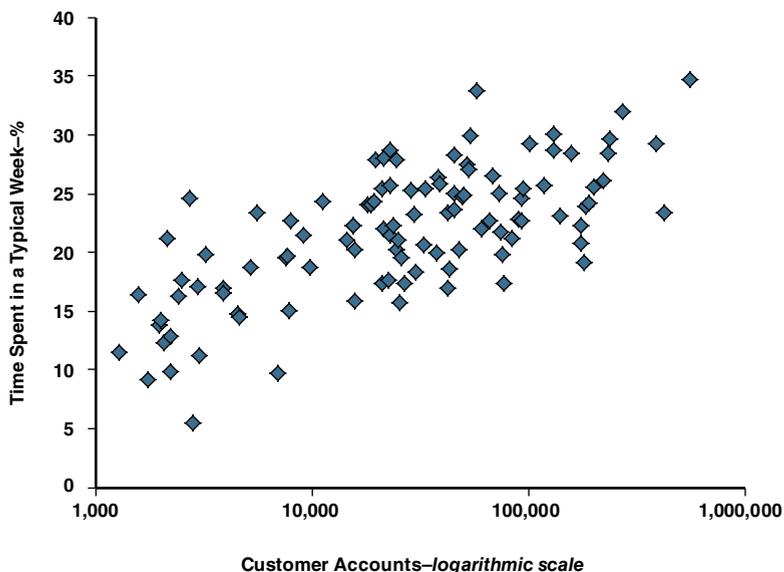
hands-on operations than their counterparts in other types of utilities. In addition, the model indicates that CEOs of investor-owned utilities

spend significantly greater time on direct operations than their publicly owned counterparts. However, this result should be viewed with some

caution, because only 13 investor-owned utilities are in the dataset.

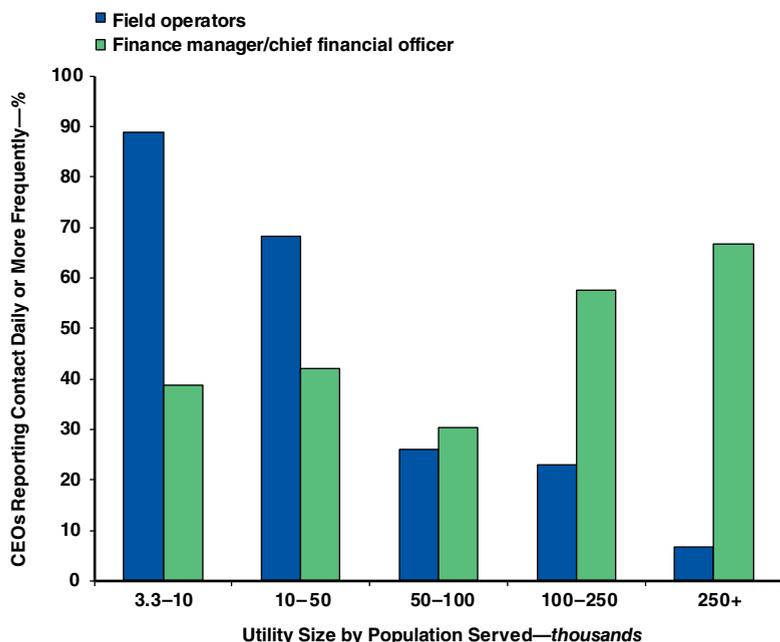
Interactions with people outside of the utility. CEOs reported spending an average of 18.6% of their time interacting with people outside of the organizations they lead. Regression analysis identified a strong, positive correlation between utility size and time that the CEO spends interacting with people outside of the utility, as shown in Figure 3. Larger utilities' CEOs may be more engaged in negotiations with neighboring utilities, community groups in the areas they serve, state or federal regulatory agencies, and the broader professional community. Although nearly all CEOs spend time on such tasks, time allocated to outside engagement apparently increases as utilities grow larger. In addition, CEOs of investor-owned utilities spend significantly less time interacting with people outside of the utility than do those of publicly owned utilities.

FIGURE 3 Estimated percentage of chief executive officer time spent interacting with people outside of the utility organization by utility size



Source: Linear regression analysis of CEO survey; see full report for details

FIGURE 4 Percentage of chief executive officers reporting at least daily interactions with field operators and finance managers by utility size



Source: CEO survey (n = 116)

CAPTURING INTERACTIONS WITHIN THE UTILITY

The survey also captured data on CEOs' interactions with people inside their organizations. CEOs were asked how often they interacted with various kinds of people within their organization during the previous 12 months. CEOs report the most frequent interaction with their administrative assistants/secretaries, with 86.3% reporting interactions with these employees daily or more frequently. CEOs also report frequent interactions with senior operations managers, whereas they report having the least interaction with their attorneys, community relations, and human resources managers.

Utility size has a large effect on the distribution of CEO internal contact. Smaller, flatter organizations report more frequent interactions with frontline field, plant, and customer service personnel, whereas utility CEOs report fewer interactions with frontline personnel and a high frequency of interaction with operations and finance managers/chief

financial officers (CFOs). Figure 4 shows these differences.

Patterns of internal interaction. What patterns, if any, emerge from CEOs' interactions with people within their utilities? Are there distinct types of internal CEO leadership in water utility organizations? Factor analysis was used to detect relationships between executives' reported internal interactions. Factor analysis uses observed correlations between several variables to identify underlying patterns that may indicate one or more general factors that unite sets of variables. Factor analysis of survey data indicated that CEOs' internal interactions aligned along three factors, representing three separate dimensions of behavior: frontline leadership, business leadership, and system leadership. These factors were used to measure the degree to which each CEO reports engaging in each of these dimensions of internal interactions; Figure 5 shows their distribution. The full results can be found in the full report, but the following section outlines important findings for each of the dimensions.

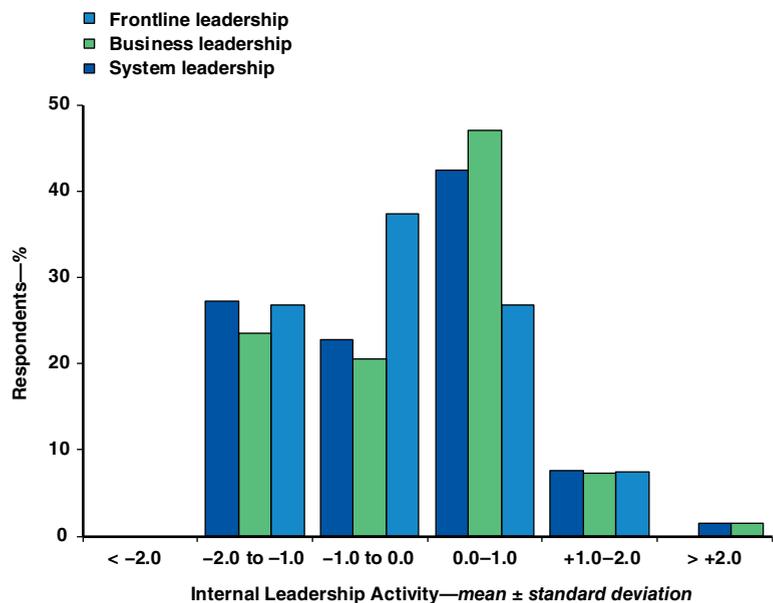
Frontline leadership. Factor analysis found strong associations between CEOs' interactions with field operators, plant operators, and customer service staff. Two variables were identified that strongly predict this frontline leadership among CEOs (see the sidebar on page 72). The first is utility size: a CEO's frontline leadership declines as the size of his or her utility increases, as shown in Figure 6. This result is unsurprising, because the need for frequent frontline supervision declines as organizations grow and middle managers take on greater supervisory responsibility. The second significant correlate is CEO age: all else being equal, a CEO engages in more frontline leadership as his or her age increases. The reasons for this correlation are unclear and require further analysis.

Business leadership. A second strongly related set of behaviors

emerged from CEOs' reported interactions with human resources managers, finance directors/chief financial officers, and customer service managers (see the sidebar on page 77). Because these functions are not directly related

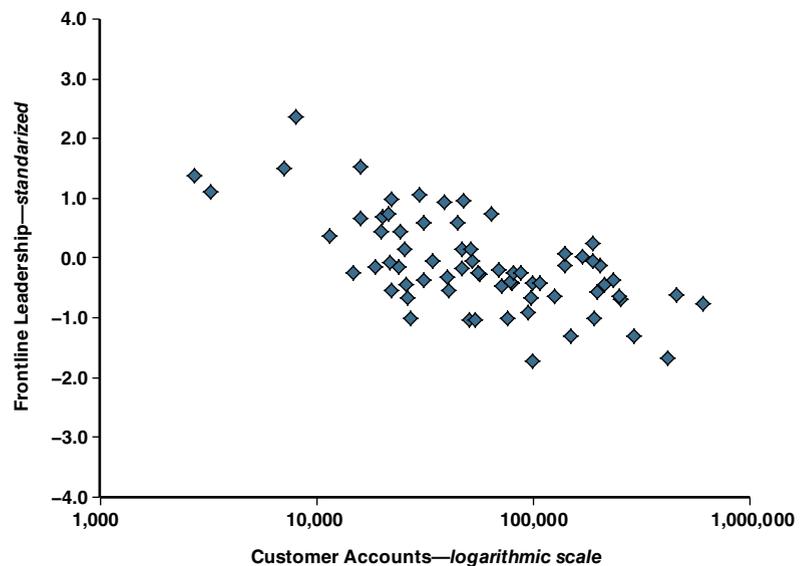
to utilities and could be found in any business organization, this factor is labeled "business leadership." Regression analysis identified just one variable that strongly predicts business leadership among CEOs: a CEO

FIGURE 5 Distribution of frontline, business, and system leadership factor scores



Source: Factor analysis of CEO survey; see full report for details

FIGURE 6 Estimated frontline leadership behavior by utility size



Source: Ordinary least squares regression analysis of CEO survey; see full report for details

engages in more business leadership as utility size increases. Figure 7 shows this relationship.

System leadership. The third identified pattern deals with CEOs' interactions with operations and

engineers to senior managerial posts and entrust them to make sound decisions without frequent interactions. Executives promoted from within an organization engage in more system leadership than their

Chief executive officers of investor-owned utilities spend significantly less time interacting with people outside of the utility than do those of publicly owned utilities.



engineering managers, labeled as "system leadership" in this study. Four variables significantly correlate with system leadership among CEOs. At the individual level, system leadership is mildly and negatively correlated with CEO tenure in the current job; the reasons for this relationship are not clear. In addition, CEOs who are engineers engage in significantly greater system leadership than non-engineer CEOs. Engineers may pursue more frequent system leadership out of professional interest; simultaneously, nonengineers may seek to appoint highly qualified professional

peers who were hired from outside an organization. At the utility level, CEOs who lead special-district utilities engage in significantly more system leadership than CEOs of general-purpose municipal government and investor-owned utilities. The reasons for these differences are not clear from the present analysis.

CAPTURING INTERACTIONS OUTSIDE THE UTILITY

Leading a water utility also can require interacting with people outside of the utility, and so the survey also captured information on CEOs'

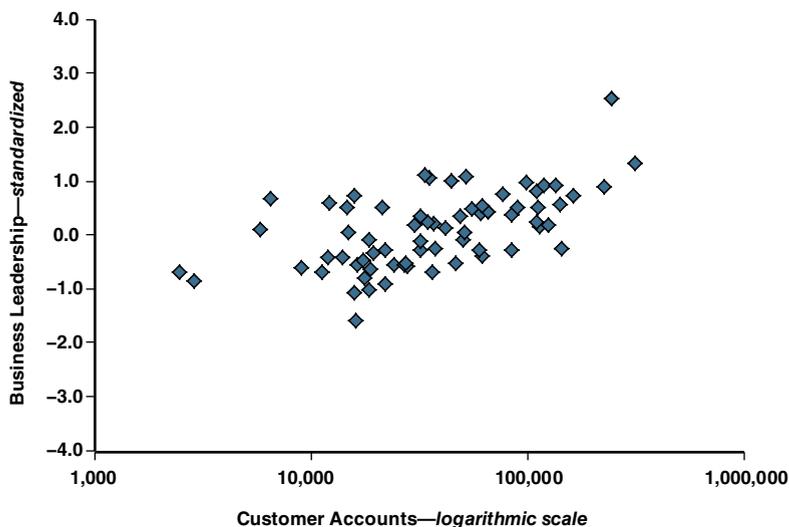
patterns of such interactions. CEOs were asked how often they interacted with different kinds of people during a span of 12 months, coded on a five-point scale: never, one to two contacts per year, one to two contacts per month, one to two times per week, or daily. CEOs reported the most frequent and self-initiated contacts with appointed executives of their organizations (e.g., the city manager in a council-manager city government). Substantial majorities of CEOs also reported initiating contacts with their governing boards (e.g., city council, board of directors) as well as professional peers from other utilities. The second most frequently contacted people outside of the utility were customers, with 84.2% of CEOs reporting interactions daily or more frequently. However, 83.0% of CEOs reported that customers initiated contact in their last interactions. Similarly, CEOs report high frequencies of interaction with business, neighborhood groups, and vendors, but the majority of these interactions is not initiated by the CEO.

Patterns of external interaction.

What patterns, if any, emerge from CEOs' interactions with people outside of their utilities? Are there distinct types of external CEO leadership in water utility organizations? As before, factor analysis was used to detect patterns within the external interaction data to reveal the dimensions of CEOs' external leadership interactions. This analysis indicated that CEOs' external interactions aligned along four dimensions: customer relations, advocacy, networking, and managing up. With the use of these dimensions, regression-based factor scores were created that measured the degree to which each CEO reported engaging in each type of external interaction. The following section discusses important findings for each dimension of external interaction.

Customer relations. Factor analysis showed strong associations between CEOs' interactions with customers, neighborhood groups,

FIGURE 7 Estimated business leadership behavior by utility size



Source: Ordinary least squares regression analysis of CEO survey; see full report for details

and businesses/developers. These people are elements of a utility's customer base, and so this factor is labeled "customer relations." Regression analysis of several combinations of variables failed to generate stable, robust correlations between customer relations behavior and utility-level variables. Most of these contacts are not initiated by the CEO, so

this dimension represents CEOs responding to various customer and interest-group concerns.

Two individual-level variables show moderate differences in CEO level of customer relations activity: profession and career path. CEOs who are engineers engage in significantly less customer relations activity than do nonengineers. Also, execu-

tives who were promoted from within an organization engage in more customer relations activity than do those who were hired from outside an organization. The present data do not offer a direct explanation for these differences. However, the apparent effect of career path are consistent with earlier research that links internal promotion with "local

Reorganization as a Business Leadership Strategy

In his first two years as director of the Miami-Dade (Fla.) County Water and Sewer Department (WASD), John Renfrow implemented a major reorganization of his utility. Like most reorganizations, this initiative stressed efficiency and economy as well as maximizing coordination and minimizing redundancies (March & Olson, 1983; Boyle, 1979). But reorganizations have significance beyond efficiency; they are important signaling events and educational opportunities in the life of an organization. Organizations have values, priorities, and beliefs; reorganizations can reinforce or contravene them (Maynard-Moody et al, 1986; March & Olson, 1983). At one level, Renfrow's reorganization helped capture efficiencies and eliminate waste and fraud. At a deeper level, the reorganization helped to shape the mission and culture of one of the nation's largest utilities.

The two stated purposes of the WASD reorganization were (1) to change organizational structure by shifting of positions and responsibilities and (2) to gain staffing efficiencies through streamlining and improved training (Miami-Dade County, 2006). When asked what prompted the department reorganization, Renfrow responded, "There was too much inefficiency going on here, there was some fraud going on here, there was some criminal activity going on here. Forget the water and sewer part of it; we had to really stop the bleeding."

Beyond the efficiencies captured through streamlining, the reorganization sent potent signals of Renfrow's priorities. With a staff of nearly 2,400, he cannot interact regularly and directly with every employee. Reorganization is a means of shaping organizational culture when the chief executive officer must lead "from a distance." The reorganization indicated to employees throughout WASD that their leaders value efficiency. Five

years after the reorganization, interviews with staff reflect that priority: employees from the executive office to the street level espouse the efficiency and accountability ideals. For example, the research team observed one treatment plant operator who took pride in rebuilding a decades-old motor on his own, pointing out that replacing the motor with a new one would have been much costlier in time and money.

Renfrow's reorganization also conveyed concern for regulatory compliance. The reorganization plan elevated compliance to a very high status and tied compliance directly to capital planning by creating a deputy director for regulatory compliance and capital improvements. Deputy Director Douglas Yoder explained that there had been a long history of compliance problems at the department, which reached a crescendo in 2006 when WASD failed to renew its water use permits and had to suspend development at the height of a building boom. The reorganization helped to refocus WASD on its regulatory obligations. Elevating the responsibility of regulatory compliance to the top of the organization chart signals the gravity with which the chief executive officer regards regulatory compliance.

Renfrow's 2006 reorganization of the Miami-Dade County WASD captured operational efficiencies and improved accountability. More significantly, restructuring WASD demonstrated Renfrow's commitment to reforming the utility at a cultural level. From the bottom to the top of the WASD organizational chart, employees espouse the importance of efficiency and regulatory compliance—even when they personally dislike the directives and constraints under which they work. The reorganization's most profound, long-term effect may be on the department's organizational culture.

orientation,” which in the case of utility managers might mean heightened concern with responsiveness to customers (Green, 1989; Almy, 1975).

Advocacy. “Advocacy” includes the interactions that a CEO has with the media, the utility’s governing council (city council, commissioners, or board of directors), and state or federal legislators. Regression analysis identified two utility-level variables and two individual-level variables that are significantly correlated with advocacy among CEOs. At the utility level, size is positively correlated with advocacy: CEOs of larger utilities engage in more advocacy than do their counterparts in smaller utilities, as shown in Figure 8. Also, CEOs of special-district utilities engage in significantly less advocacy than CEOs of comparable general-purpose municipal government and investor-owned utilities.

At the individual level, advocacy declines as CEO tenure increases. This finding may indicate that newly appointed CEOs interact frequently with elected officials, legislators, and

hired from outside an organization engage in significantly greater advocacy than do those who were promoted from within, a finding consistent with other research on

On average, chief executive officers report spending 38.7% of their time on management and leadership of utility staff.



the media to establish credibility and a public image. Alternatively, newly arrived CEOs may need to advocate for authority and/or resources for their organizations to address immediate issues. In either case, the urgency for advocacy would decline as a CEO’s tenure continues. Also, CEOs who were

career paths and executive behaviors (Teodoro, 2013a).

Networking. CEOs are members of a broader drinking water community and interact with regulators and professional peers from other utilities. This forms the basis of the third factor, “networking,” and includes interacting with fellow utility

Networking and Regional Leadership

Effective utility leadership sometimes means leading a broader community of drinking water providers. During the past 25 years, a large area of southeast Texas has suffered from geologic subsidence because of a combination of high growth and a historic high degree of dependence on groundwater sources by the water utilities that serve the region. As one of the larger utilities and among the fastest-growing utilities in the region, the City of Sugar Land’s (Texas) Utilities Department is at the center of the subsidence issue, literally and figuratively. Securing supply sources while addressing subsidence has been critical for Sugar Land since SuEllen Staggs took over as director of utilities. Staggs’ influence extends beyond her own utility: through the subsidence issue and other interagency coordination efforts, she has quietly emerged as a leader in regional water management throughout southeast Texas and beyond.

Regional subsidence issues put the region’s utilities in potential conflict over dwindling groundwater. Taking advantage of Sugar Land’s relative affluence and robust growth rate, Staggs and her utility moved to develop a new surface water treatment facility and so reduce the

utility’s reliance on groundwater. At the same time, Staggs has become deeply engaged in regional planning and coordination efforts rather than delegating the responsibility to a staff member. “SuEllen is a leader in our regional relationships,” observed one of her senior staff members.

As a participant in regional planning and policymaking, Staggs seeks to build trust among people and organizations that have shared a contentious history. When asked to describe Staggs’ participation in regional policy processes, one observer described her as “credible—she really took the time to become educated on the issues and the perspectives of everyone involved.” Staggs “doesn’t speak more than she listens,” said another observer. “But she interjects when she needs to. She’s respectful, and so she’s respected by everyone.” By building trust and establishing her credibility, Staggs has become a pivotal actor who represents one of the most important utilities in the region.

SuEllen Staggs left the City of Sugar Land’s utilities department and became the Woodlands Division Manager at San Jacinto River Authority (Conroe, Texas).

leaders pursuant to interagency planning, negotiating, and cooperation as well as communicating with the staff of the regulatory agencies with whom the utility works (see the sidebar on page 78).

Analysis of networking revealed no consistent, significant utility-level or individual-level correlates. This null finding is interesting because it suggests that, although interaction with the drinking water community outside his or her utility is important, a CEO's level of external networking is driven by largely idiosyncratic conditions. One implication of this nonfinding is that leaders of the drinking water professional community who are interested in fostering networking among utility executives should look to circumstantial drivers of cooperation.

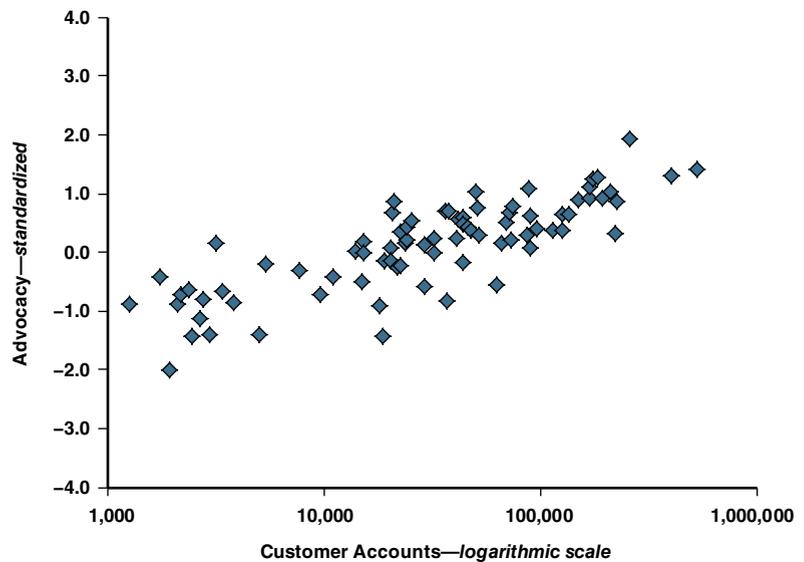
Managing up. Interaction with an elected or appointed political executive (e.g., a mayor or city manager in a municipal utility) shows the strongest loading on the fourth factor, though other variables show moderate loadings on this factor as well. Following Moore's work (1995), this factor was labeled "managing up" because it reflects the CEO's engagement with his or her organizational superior.

Regression analysis identified two variables that predict managing up by CEOs. First, managing up declines as utility size increases, as the scatter plot in Figure 9 shows. Second, CEOs who are engineers engage in significantly more frequent managing up than do nonengineers. The present data do not offer direct reasons for these differences. However, as we observed in the second article in this series, engineers tend to view their roles more as policy makers and less as administrators (relative to nonengineers) (Teodoro & Whisenant, 2014). The differences in managing-up behavior observed here may reflect these different role orientations.

CONCLUSION

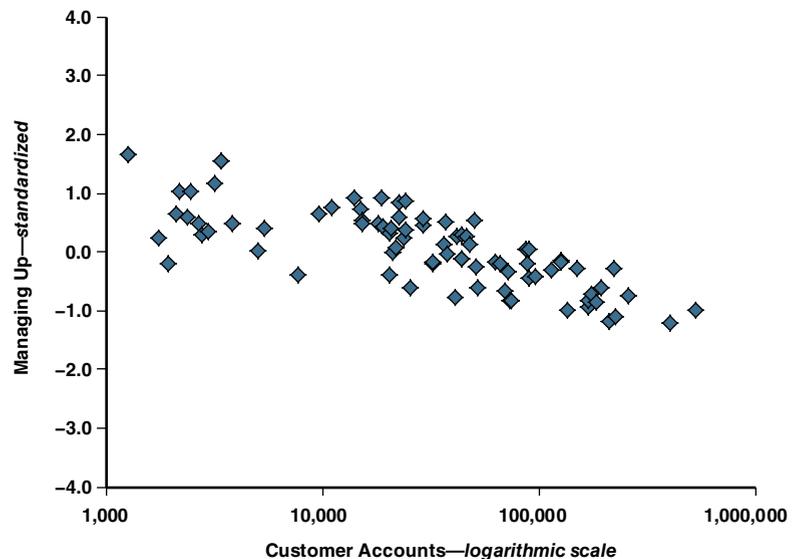
This article shows how water utility CEOs behave on the job, revealing marked patterns in CEO interac-

FIGURE 8 Estimated advocacy behavior by utility size



Source: Ordinary least squares regression analysis of CEO survey; see full report for details

FIGURE 9 Estimated managing-up behavior by utility size



Source: Ordinary least squares regression analysis of CEO survey; see full report for details

tions. Time allocation varied significantly according to utility size. Analysis of behavioral data shows that CEOs' interactions with people inside and outside of their utilities depend on variables such as utility size, CEO age, professional background, tenure in current job, and career path.

Water utilities can use this information when determining a candidate pool for the CEO position. For example, a small utility may want to look to candidates who are comfortable with frequent frontline leadership, whereas larger utilities might emphasize executives who are adept at the advocacy role that large utility CEO

jobs demand. A utility that needs greater system leadership may want to look for an executive candidate who is an engineer, whereas a utility that wishes to foster customer relations at the executive level might seek a candidate who is not an engineer.

By depicting the water utility CEO in behavioral terms, this study also gives early- and mid-career professionals a composite look at the executive job—not according to its formal description, but as it is actually performed. The patterns of internal and external leadership behavior identified here show aspiring executives the dimensions of a CEO's day-to-day work and so offer ambitious early- and mid-career professionals useful guidelines for their own career development. For example, those aspiring to CEO posts in larger utilities may look to develop their business leadership and advocacy acumen in preparation for the realities of executive jobs in large utilities. Those who seek executive jobs in smaller or medium-sized utilities might cultivate the managing-up and frontline leadership skills that CEOs exercise in those contexts. Utilities and industry organizations can use this study's findings to develop and prepare future executives for the challenges that await them in the corner office.

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outcomes. He has more than 16 years' experience in utilities policy and research, has served on AWWA's Rates and Charges Committee, and currently serves on its Workforce Strategies Committee. Travis E. Whisenant is a doctoral student at Texas A&M University, where his research focuses on American politics and public administration.

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