
13. Cost, quality, and agency capacity in public service delivery

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DEFINING CAPACITY

“The very concept of capacity remains quite controversial, as there are cross-disciplinary variations in its interpretation and its research-driven applications” (Haque et al. 2021, p. 211). Yet fundamentally, capacity boils down to the ability of an individual, group or organization to do something (Morgan, 2006, p. 8). The Merriam-Webster Dictionary (Merriam-Webster.com, 2023) expands on this, defining capacity as

- legal competency,
- the potential or suitability for holding, storing, or accommodating,
- the faculty or potential for treating, experiencing, or appreciating, or
- the facility or power to produce, perform, or deploy.

Another way to think of it is that “*capacity* is that emergent combination of attributes that enables a human system to create developmental value” (Morgan, 2006, p. 8).

As you may notice, these broad definitions leave the concept open to multiple interpretations and applications, depending on context and perspective. For example, within the public policymaking arena we can consider several viewpoints. When examining public agenda setting, Mc Combs & Zhu (1995, p. 495) found that *public agenda capacity* is “consistent with the proffered explanation that the volatility of contemporary public opinion is the result of a collision between two opposing forces, the expansive influence of education on awareness of public issues and the constraint imposed by the public agenda’s limited capacity.” In their view, the public’s capacity to address pressing issues “is seen as a zero-sum game in which the rise of an issue on the public agenda is at the expense of other issues.” And as public participation has become a widely accepted and defining feature of policy and governance systems across liberal democracies, governments’ *participatory capacity* comes into focus (Vivier & Sanchez-Betancourt, 2022, Chaskin ., 2001). Lazzarini et al. (2020, p. 580) note that strong *public operational capacity* is an essential part of good governance. It is necessary, in addition to “active and capable governments” and an informed and engaged populace, to propose and enforce “well-crafted projects” and “stable rules” in the public interest.

Polidano (2000, p. 809–10) asserts that “policy capacity is indeed a crucial component of public sector capacity.” He defines policy capacity as “the ability to structure the decision-making process, coordinate it throughout government, and feed informed analysis into it.” Operational or administrative capacity, is essentially “implementation authority – the ability to carry out decisions and enforce rules, within the public sector itself and the wider society.” This refers to the “cost-effectiveness of the internal operations of the public sector and the quality of the services it provides to the public ... the ability to ensure that services are delivered, that employees do the work and funds are not illicitly siphoned ... the ability to deliver those services efficiently and at a reasonable level of quality.”

Policy Capacity

The ability of agency and non-profit organizations to provide “information or advice to policy makers concerning the relative advantages and disadvantages of alternative policy choices,” or critically assess public policies as they are formulated, proposed, and enacted, speaks to *policy capacity* (Howlett, 2009, p. 173) and *policy analysis capacity* (Howlett, 2009, p. 175). Peters (2015, p. 227) notes that “bureaucratic actors are in competition with other institutions within government, as well as potentially with other actors in society. Making any statements about the policy capacity of bureaucracy therefore involves also making statements about the policy capacity of other relevant actors.” For example, Congressional partners, such as the Congressional Budget Office (CBO) and the Government Accountability Office (GAO) provide Congress with assessments of proposed and existing policies and the impacts of their implementation that are indispensable for lawmakers to develop, introduce, and enact legislation that moves public needs and political ideologies forward. The extent to which they have the systems and personnel needed to complete their work illustrates their policy analysis capacity. These reports are available to the public, as are analytical reports from external sources, such as universities, think-tanks, and other non-profit groups, such as the Committee for a Responsible Federal Budget, the Bipartisan Policy Center, and the Brookings Institution.

As the public becomes more aware of government’s ability to provide goods and services, *legitimation capacity*, a nuanced aspect of policy capacity that exists “at the systemic level and involve[s] political capacities,” becomes more salient. Concerns about the sustainability of the Social Security Trust Fund, projected to be depleted in 2034, raise alarms about government’s ability to provide fiscal support for the nation’s elderly, most of whom have paid into the fund throughout their lifetimes (Social Security Administration, 2023). This instability calls into question the federal government’s legitimation capacity. Woo, Ramesh & Howlett (2015, p. 271) see legitimation capacity as a precondition for policy capacity.

Administrative and Organizational Capacity

Scholars and practitioners often use the terms *administrative capacity* and *organizational capacity* interchangeably, yet others have established distinctions. Bowornwathana (2009, p. 1033), provides a broad, comprehensive view of administrative capacity as

... the capability to develop and deliver services that include system maintenance and the provision of security and social order. The key administrative capacities are structural (or forms of structural arrangements), process (efficiency and effectiveness and self-regulative organizational behaviors), institutional and organizational capacities, learning leadership and managerial capacities, strategic human and financial resources capacities, cognitive capacity, technological capacity of the electronic information age, ethical accountability, “legal/constitutional” as well as other capacities of democratic representation, responsiveness, and fairness, and development capacity.

Similarly, Hou, Moynihan, & Ingraham (2003, p. 300), also distinguish between the two approaches to capacity in relation to public performance. They write that “the *administrative capacity* approach considers the importance of policies, procedures, and resources governing administrative action and designed to improve government performance, [whereas] the [*governance*] *capacity approach* tends to be discussed in the field of public management.” They go

on to say that most institutional discussions of performance and capacity rely on incorporating the influences of political and institutional structure with administrative capacity.

Morgan (2006, p. 7) explores key characteristics in organizational capacity. From the perspective of empowerment or identity, organizational capacity describes the ways that an entity can grow, survive, diversify, or otherwise develop or evolve in complexity. In addition, the term can designate a “combination of attributes” (such as technical systems) that furthers the growth of individuals, groups, and collaborations between groups and organizations, that enable an organization to carry out its mission more effectively. Organizational capacity also embraces the human capital side of the organizational structure. This perspective emphasizes “performance ... [or] the execution and implementation of the application/use of capacity or its results ... [which may] require the use of different approaches to its development, management, assessment and monitoring.”

Hou, et al. (2003, p. 296) note that the characteristics of organizational capacity “reflect rules that govern (restrict) the behavior of both administrative and political actors ... and contribute to stronger management capacity.” This makes “awareness of context key to understanding what organisational capacity means for different organisations” (Cox et al., 2018, p. xiii). Capacity in public service organizations differs from that in private corporations in that it can also encompass the entities’ ability to create public value; “it refers to the ability of a group or system to make a positive contribution to public life” (Morgan, 2006, pp. 6–7) and may include public perceptions of the extent to which those contributions “fulfill societally shared notions of what is appropriate and desirable” (Brinkerhoff, 2005, p. 10).

In their review of the literature on the topic, Christensen & Gazley (2008, p. 269) found that the preponderance of the research on capacity approaches the concept from an organizational framing.

Capacity is defined sometimes as a purely internal organizational quality, comprising human and capital resources, and other times as a concept with both internal and external dimensions (for example external financial support, networks of supportive relationships, sources of training) ... [it] is also given both tangible and intangible, or quantitative and qualitative dimensions, so as to include not only the number of staff but their specialised skills, and the strength or quality of organizational leadership, ... the quality of systems and management.

Further, discussions of capacity were found predominately in business and public administration studies, and those centered on four dimensions: [1] “infrastructure (for example inventory), [2] financial and external dimensions (for example capital, market forces, customer demand, supply), ... and [3] human resources and [4] other considerations related to the quality of management leadership.” Further, these studies approached the concept in differing contexts; while some centered on organizations (i.e., entrepreneurial, financial, production, innovation, or transformative capacity), others focused on individuals, governments (i.e., policymaking, governance, performance, economic development, or environmental/catastrophic preparedness capacity) or multi-organizations, such as community engagement or social equity capacity (Christensen & Gazley, 2008, pp. 272–3).

Similarly, Morgan (2006, p. 7–8) notes that operationalizing capacity can be achieved in various ways. Structurally, “*foundational components or elements*” (emphasis in original) are the “financial resources, structure, information, culture, location, [and] values” of an organization. These aspects often provide the foundation for most analytical frameworks. From a human resources perspective, “competencies” refer to human capital aspects such as “skills,

behaviors, motivations, influences and abilities of individuals,” whereas “capabilities” pertains to the “collective logistical or technical skills, abilities, identities and motivations of a larger group or agency, or organization.” The term capacity itself describes “the overall ability of a system to [perform work and] create value” (Christensen & Gazley, 2008, p. 268; Morgan, 2006, p. 8).

Capacity in the Public Sector

Perceptions of capacity differ across sectors and entities as they are motivated by varying goals and objectives. In the private sector, maximizing profit and shareholder relations reign, whereas, in the public sector, governments and non-profit organizations emphasize service delivery and efficiency. Even within sectors, entities’ perceptions of capacity vary based on size, mission, and environment; however, across sectors culture is a core determinant (Cox et al. 2018, p. x).

According to Cox et. al. (2018, p. xii) culture is “closely linked to many of the dimensions that make up capacity, such as strategy, leadership, and accountability. Without the right beliefs, values, behaviors, attitudes, norms, artefacts, and symbols supporting the change process, capacity development was considered ... to be less likely to be successful.” Communication is another vital characteristic of capacity, particularly as it facilitates shared cultures, but also environmental, mission, and structural directives.

Effective communication [is] ... essential in achieving high organisational capacity. This is because a clear vision and internal information sharing regarding capacity building activities were seen as important for securing buy-in for capacity building tools and initiatives. For public sector organisations, ... communication ability is essential for conveying an organisation’s mission to taxpayers, strategic partners, and other external stakeholders in order to build trust and support. As with culture, communication was not ... a discrete component of organisational capacity; rather, it was ... an overarching factor that feeds into [the] dimensions of organisational capacity (Cox et al., 2018, p. xii).

For private enterprise, ideas of organizational capacity have been linked to strategic planning and, recently, notions of competitive advantage. Capacity is thought of in terms of performance, linking it to a “resource-based view of the firm” (Morgan, 2006, p. 13).

Competitive advantage lay not in complex positioning strategies but putting in place hard-to-imitate attributes such as skills, knowledge, reputation, behavioral patterns, and values that competitors could not match in the short or medium term. Organizational dynamics inside the firm mattered as much as strategic positioning outside ... capacity remained the key to competitive survival.

Notions of capacity as applied to non-profit organizations are similarly management-focused, but with an orientation toward alignment of processes, practices, and attributes with mission objectives (Letts et al., 1999; Eisinger, 2002, p. 117, as cited in Christensen & Gazely, 2008, p. 268) , rather than competitiveness or strategic alliances. Within federal, state, county, and municipal institutions, however, capacity has been described as “government’s ability to marshal, develop, direct and control its financial, human, physical and information resources” (Ingraham et al., 2003, p. 15). Polidano (2000, p. 805) describes it as consisting of “three elements: policy capacity, implementation authority and operational efficiency.” These elements can be profoundly impacted by environmental factors that are beyond the control of the public

sector. For non-profit organizations, environmental factors can impact national and local philanthropic and government grant-making agencies' funding priorities. Economic crises (the 2008 economic crash, for example) can significantly impact their capability and stability.

For governments, efficiency and effectiveness may be determined via performance metrics; they are increasingly linked to capacity and driven by transformational events such as ecological catastrophes and the COVID pandemic (Kunz & Pattison, 2023). Many hold that that efficiency and effectiveness and capacity are connected so that an increase in one generates an increase in the other. There is considerable evidence to support that assertion, yet the two can be at odds as well. For example, organizational capacity in the public sector, and particularly within government, has long been associated with fiscal capacity. But in their study of political and budgetary institutions and democratic participation, Borge et al. (2008) documented a negative relationship between fiscal capacity and efficiency. They also found that a fragmented political environment, coupled with increased civic engagement, increased fiscal capacity but reduced efficiency.

Other aspects of organizational capacity are less explored but no less important. A study of capacity, leadership, and organizational performance by Andrews & Boyne (2010) found that capacity was positively associated with performance. In addition, they determined that leadership may augment the impact of effective management systems. Capacity has also been connected to performance measurement, and capacity and leadership have been linked to innovation (Lewis, Ricard, & Klijn, 2017).

IDENTIFYING CAPACITY STRENGTHS AND SHORTCOMINGS

Proactive public governance includes managing the ways in which issues are framed and the processes by which they are addressed as well as the actual delivery of services. "This involves retooling to manage differently." As governments increasingly move away from and devolve the direct-service business and move to managing other government or private and nonprofit delivery of services, different talents, resources, educational preparation, and perspectives are needed. Issues of capacity pose a significant threat to the success of this new proactive management (Hall, 2002, p. 38).

There are limits to an organization, institution, or agency's absorptive capacity, such as the "dynamics of the local environment ... its public tasks, and its investment in the knowledge process (Hall, 2002, p. 38). Building absorptive capacity, particularly as governance shifts to more collaborative partnerships, demands a requisite appreciation of a government, agency or program's strengths and weaknesses, such as performance successes and shortcomings of the entity's administrative or systems capacities. Today, most, if not all, public entities are capacity-challenged, and those restraints often center on fiscal limitations.

Performance and Effectiveness

There are well-known cases at all levels of government where insufficient capacity has, or continues to have, negative impacts on public organizations' abilities to carry out their missions. The lack of sufficient capacity influences public consumption, perception, and engagement as well. For example, each year the Internal Revenue Service's annual budget request to Congress includes funding increases for expanded operational and systems capacity. Their

request includes performance metrics that demonstrate where they are able to effectively complete their mission and identifies areas in which they need to build capacity, such as collection, enforcement, and improving the taxpayer experience. According to their 2024 budget report, “another priority to advance fairness in tax administration is to ensure taxpayers comply with federal tax laws. To this effect, the IRS will continue to develop innovative approaches to understanding, detecting, and resolving potential noncompliance to maintain taxpayer confidence in the tax system.” Accomplishing this requires not just more staff, but also personnel with specialized training and expertise to navigate the more complex and complicated filings, as well as expanding operations and enforcement support, modernizing business systems, and the technology, personnel and ongoing training needed to advance these efforts. All of this is predicated on substantive increases in fiscal capacity (U.S. Internal Revenue Service, 2024, p. 10).

Transformational Catastrophes: A Brief Case Study

The expanding occurrences of increasingly devastating climate crises across the country have caught many states if not by surprise, most certainly unprepared. Similarly, the aging and real or anticipated collapse of infrastructure such as dams and bridges, or water and power systems, has state and local governments scrambling to meet the crises when they occur. Governments traditionally do not budget for these extraordinary catastrophes, illustrating the lack of capacity in emergency preparedness and systems effectiveness, such as data collection structures, performance measurements, trained analysts to continually assess the data as it is collected, and fundamentally, the funding necessary to support this expanded capacity. Ford (2018, p. 2) recommends steps that state and federal policymakers could take to build resilience, including commitments to collecting comprehensive, detailed data and using that to manage growth in costs to plan, prepare and remediate disaster occurrences, and importantly sharing their data and insights with other states and agencies. He also notes that this capacity building will require commitment and follow through from high-level officials, something that may clash with other ideological budget priorities.

Unlike environmental and infrastructure crises, the COVID pandemic was a catastrophic occurrence of epic proportions. It brought a spotlight to the many ways in which federal, state, and local governments were unprepared for a transformational event (Kunz & Pattison, 2023), illustrating the lack of structural capacity in federal and state governments, and their agencies and programs, to collect and maintain constituent and service data and performance metrics to track and anticipate public service needs. Gathering and assembling data and measuring the effectiveness of programs and services affords transparency and accountability to the public. More importantly, knowing how service demands and resources – personnel, equipment, technology, funds, etc.- are allocated and the outcomes of those efforts, especially over time, enables lawmakers and agency directors to determine the effectiveness of those outcomes and make informed decisions. This information also offers a baseline for preparedness planning, including capacity needs, under diverse conditions, including crisis conditions such as environmental catastrophes (floods, wildfires, drought, etc.). In turn, these preparedness efforts would have informed decisionmakers and directors of the extraordinary health and emergency response personnel and equipment, social service, and business support needs of their constituency and offered pathways to meet those needs, at least at the onset of the pandemic, if not throughout it. Finally, the capacity to provide timely information, medical care

and equipment, and social services to the public in a time of extreme turmoil would increase governments' legitimation capacity in the eyes of their citizenry.

Of the tranches of federal aid distributed to the states during the pandemic, only the Coronavirus State and local Recovery Funds (CSLFRF) allocations came with mandated reporting requirements. States were required to include performance measures for dollars allocated to job creation efforts in annual reports to the U.S. Department of Treasury. In a study for the IBM Center on the Business of Government, Kunz and Pattison (2023) employed a case study of Colorado, Florida, and Illinois to compare allocation choices and reported metrics. Their broad review found that of all 50 states, over one-third (39%) used CSLFRF monies to reimburse general revenue accounts. Revenue replacement made satisfying the Treasury Department's accountability mandates easier as states were obligated to disclose this use to the Treasury, but that was the extent of the reporting requirements. Directing substantial portions of the Recovery Funds to reimbursement or supplement social service support programs demonstrated a significant lack of preparedness and capacity to support increased demand.

"Relief programs [were] a different matter. Reporting to Treasury could include details such as the evidence-based research behind a program, the number of people it will serve, demographic information about them and tracking its impact" (Smith, 2022, as cited in Kunz & Pattison, 2023, p. 18). Of the states included in the case study, Colorado had the greatest capacity for emergency response. Their state-of-the-art performance management system, created by The State Measurement for Accountable, Responsive, and Transparent Government Act (aka, the SMART Act) in 2013, enabled the state to develop a multi-year, comprehensive database that included clear, measurable performance-based goals via construction of a publicly available and searchable dashboard. When the pandemic hit, the governor and lawmakers conducted a state-wide listening-tour and distributed the majority (75%) of their CSLFRF allocation "to programs within social services, including education, housing, human services, public health, and unemployment" based on the results of public comment. Just 15% of the funds were applied to economic recovery programs, such as access to justice, and economic/workforce development (Kunz & Pattison, 2023, p. 20). The performance metrics they reported to the Treasury were clear and comprehensive; in addition, the spending and performance information was incorporated into the dashboard for access by the public and for use in by agencies in future emergency preparedness planning.

On the opposite end of the spectrum, Florida directed the majority (67%) of its CSLFRF distributions to general revenue funds. The remaining funds were primarily used for capital projects and infrastructure. None of the funds went to health, housing, or social support. Very little went to workforce development or economic support, making reporting obligations to the Treasury nominal. Of those that were required, the metrics contained very little objective data or measurements.

Illinois fell into the middle of the pack. Almost half (46%) of their CSLFRF monies went to general revenue reimbursements, 32% to unemployment and 15% to capital projects. In their annual reports to the U.S. Treasury, "specific detailed metrics [were] often lacking; however, the state ... worked closely with agencies to encourage the development of performance measures ... [and has] a centralized administrative infrastructure for robust performance measurement ... Their biggest challenge, however, has been whether management of the dashboard would be centralized within the state OMB or devolved to the agencies; it appears to currently be a combination of the two" (Kunz & Pattison, 2023, p. 24).

Of the three states, Colorado made a concerted effort to expand their organizational, systems and personnel capacities to collect and analyze data to identify service needs and improve delivery effectiveness, and to share that information with the public to develop engagement capacities. Illinois' initial efforts in this direction were uncoordinated, preventing them from making the most of data and analytics, and informing and engaging the public. Beyond those two instances, however, most states were and continue to be unprepared for even "everyday" crises, such as increases in homelessness and tent cities, surges in demand for SNAP benefits and public housing, and fluctuating unemployment and demands for other social supports. Findings from the Kunz & Pattison (2023) study indicate that most states have limited analytical capabilities, such as the ability to collect data, create performance metrics, or critically assess the results, let alone examine their interconnectedness and forecast future needs.

For the federal government, and the Treasury specifically, distribution of the CSLFRF stimulus funds represented the first time the federal government connected allocation and results reporting to pandemic stimulus allocations. This type of requirement is common in other federal granting agency (i.e., EPA, USDA) awards. Those sources were likely not considered when the Treasury designed its reporting directives, as the lack of clear reporting and the constrained value of the data contained in the annual reports impacted the accuracy and effectiveness of any informative, predictive results. Did Treasury have the expertise and systems in place to effectively craft this type of intergovernmental, data-driven initiative and manage reporting responses? Further, did they "explore which capacity issues serve as the most important to successful program implementation" in the states? In other words, did they identify the "'tipping' point at which local [and state] partners ... no longer have the ability to implement" these reporting requirements? Did the responses received (such as TBD, or to be determined, as reported by Florida, for example) illustrate the true lack of capacity or rather a lack of willingness/effort to bring existing capacity to bear. ((Kunz & Pattison, 2023).

Identifying capacity shortcomings – personnel, systems, technology, and policy needs – and understanding the fiscal and policy constraints of lawmakers and decisionmakers helps to facilitate capacity expansion and development (Kunz & Pattison, 2023). This seems like a commonsense statement yet understanding an organization's strengths and weaknesses can be challenging. Developing an inventory of personnel skills, systems capabilities, management practices, and environmental needs can be an effective way to identify the capacity on hand compared to that needed to identify and produce the desired performance outcomes. Strategic planning and long-term visioning that align mission objectives to programs and performance outputs and outcomes can then be used to identify the organizational and administrative systems necessary to bring the organization to optimal performance. That data can support budget justifications for the additional fiscal capacity required to achieve those goals.

Cost, Quality, and Delivery

Performance measures and questions of effectiveness are outward-facing metrics, with underlying questions centered on how *effectively* agencies and programs are meeting public needs and the extent to which they have the capacity to carry out those missions. On the other hand, questions about cost, quantity, and delivery of public services are internal in nature, and here the key is *efficiency*. They also measure capacity to deliver public services, but from a different perspective. For example, the IRS might consider not just whether they have the right number of personnel with the right skill sets necessary to accomplish their mission

(effectiveness), but also how cost-effective it would be to maintain that capacity (efficiency). Would contracting personnel with the requisite skills be a more efficient use of public dollars than staffing up? What is the breakeven point? At what point would the quality of service delivery begin to suffer?

In Polidano's (2000, pp. 809–810) consideration of “implementation authority,” (in the earlier discussion of operation and administrative capacity) he refers to the “cost-effectiveness of the internal operations of the public sector and the quality of the services it provides to the public ... the ability to ensure that services are delivered, that employees do the work and funds are not illicitly siphoned ... the ability to deliver those services efficiently and at a reasonable level of quality.” Considerations of efficiency, including quality, cost and delivery of the public services provided via administrative and operational authority, are essential to assessing the efficiency of process and practice.

The analysis of quality, cost, and delivery, often referred to as QCD, is generally thought of as a means to assess the production process to provide feedback for decision-making and goal prioritization (Department for Trade and Industry, 2005). It is equally pertinent to service delivery and offers alternative ways to measure existing capacity and identify needs for improvement. Components of this process often include “not right the first time” (p. 4), “delivery schedules” (p. 6), “people productivity” (p. 8), “stock turns” (p. 10), “overall equipment fitness” (p. 12), “value added per person” (p. 14), and “floor space utilization” (p. 16):

- Not the right time (NRT) refers to issues of quality and measurements of “defective parts per million.” For example, the IRS might use NRT to measure the number of unanswered customer calls vs. total calls received, or the amount of time it takes to resolve customer inquiries, or a combination of the two.
- Delivery schedule measurements pertain to how quickly services are delivered. For example, when someone retires and registers for Social Security benefits, it can take anywhere from three weeks to three months for monthly payments to begin. Narrowing that window would be a way to make delivery more efficient. Speed may be countered, however, by accountability and reporting requirements (Ababio et al., 2008).
- People productivity assesses the length of time it takes staff to produce the desired number of desired results (may be combined with NRT). Reducing application processing times, through technology or process changes, for example, may also narrow the Social Security Administration's payment window and perhaps allow administrators to take on other activities.
- Stock turns refers to the time it takes to convert raw materials to finished goods. Fundamentally, this refers to the time it takes to move goods for public use. Procurement and contracting activities fall into this category. Examples here could include getting SNAP (Supplemental Nutrition Assistance Program) cards to states for distribution to qualified individuals or acquisition and allocation of food (such as cheese) to counties for use in preparing school lunches.
- Overall equipment fitness refers to the use and upkeep of public equipment. Military equipment and outbuildings (see, for example, the military's corrosion abatement processes in U.S. Department of Defense, 2022), state fleet vehicles, school buses, fire trucks, and agency computer equipment all fit into this category.
- Value added per person combines stock turns and people productivity to determine how efficiently staff members are employed. This often includes a combination of NRT and personnel productivity.
- Floor space utilization is self-explanatory. Many local metropolitan downtowns nationwide have been left with empty buildings despite post-COVID returns to work because of demands to continue remote work. The federal government has limited remote work in some agencies to avoid empty buildings. Conversely, some governments (including West Virginia's land grant university) have reduced heating and cooling in scarcely populated buildings to reduce cost.

There is a host of literature that differentiates service provision from manufacturing and production, and public services as unique within the “services” sector. Normann, (2007 as cited in Osborne & Brown, 2011, p. 1343) notes that “while this literature identifies a range of differences ... the four core differences agreed [upon] across all studies ... are:

- Intangibility (that services are processes rather than concrete goods and so cannot be stocked or demonstrated and where transfer of ownership is uncommon);
- Inseparability (that the production and consumption of services occur simultaneously and cannot be separated, unlike for manufactured goods);
- Perishability (as a consequence of the above, that services must be consumed at the point at which they are produced and cannot be stored for future use in the way that manufactured goods can be);
- Co-production (that services are produced through the interaction between service providers and their consumers, the latter being an active participant in the production process and not solely a consumer, as for most manufactured goods).”

This differentiation suffers slightly in practice, as privatization of public services and service delivery have increased exponentially. In addition, some aspects of federal government fit into the manufacturing and production sectors, directly or through contractual arrangements. The U.S. Department of Defense (DoD) is a prime example here, as it engages in these types of activities in many ways. Their arrangement with Six Sigma to evaluate the quality of production efforts in the aerospace industry (below) provides one example.

Most federal agencies as well as some state government and non-profit organizations actively audit and monitor the quality, cost and delivery of their mission-directed services and other activities. Platforms such as *Six Sigma* and *Lean Six Sigma*, or *ISSO 9001* are commonly used to facilitate the process.

ISO 9001 is a globally recognized standard ... [that] focuses on Quality Management Systems (QMS) and provides a framework for organizations to establish, implement, and continually improve their processes and operations. The primary aim of ISO 9001 is to ensure consistency in delivering products and services that meet customer requirements while complying with applicable regulations.

Six Sigma, on the other hand, is a data-driven methodology that ... seeks to identify and eliminate defects or variations in processes by using statistical tools and techniques. The core principle of Six Sigma is to achieve a level of process performance where the likelihood of defects is minimized to only 3.4 per million opportunities, known as a sigma level (QMII, 2023).

Again, capacity is an issue when it comes to performing these analyses. Departments and agencies that operate at or close to full capacity – with the skilled personnel, technology, equipment and other items needed to implement mission requirements – may also have the capacity to determine how effectively they are doing so. That may include in-house systems and personnel, such as the DoD Lean Six Sigma Program Office (Sicilla, 2011) or via contracts with organizations that specialize in those activities, such as QMII, quoted above. The Defense Department is the largest and most active user of Six Sigma; for example, in mid-2023, for example, the DoD contracted with Six Sigma to audit and analyze its manufacturing activities in California.

As part of the nation’s effort to sustain the microelectronics manufacturing capability necessary for national and economic security, and in support of Executive Order 14017, America’s Supply

Chains, the Department of Defense recently entered a \$10 million agreement with Six Sigma utilizing Defense Production Act (DPA) Title III authorities.

Six Sigma will increase the capacity of both its copper solder column manufacturing and column attach processes to enable the production of high-reliability Column Grid Array components (such as Field Programmable Gate Arrays and Application Specific Integrated Circuits) for military and aerospace applications (U.S. Department of Defense 2023).

There are concerns within the literature about privatization of public services, particularly in determinations of efficiency. Detractors point to increased cost, lack of accountability and transparency, ethics concerns (i.e. fraud), privacy (Kosar, 2006), public safety (Moe, 1987), and social concerns (Beesley & Littlechild, 2013, Cordelli, 2020). Notwithstanding, hiring expertise as needed can be an efficient and effective way to increase capacity in a multitude of ways, without having to go through extensive hiring or purchasing processes.

Questions of capacity, including identification, building, and anticipation, should combine performance and results with quality, cost and delivery perspectives to create a holistic path toward efficient and effective service provision. Further, assessments should include the extent to which increasingly sophisticated and evidence-based approaches are encouraged to promote forward-thinking and innovation.

BUILDING CAPACITY

Bowornwathana (2009, p.1032) talks at length about building capacity on a broad scale using frames of reference that resonate with the pandemic as a transformative event and the continuing climate catastrophes and civil and social tragedies that are impacting civil society. He envisions:

the building of “governance capacities,” which covers, first, the capacity to manage in the turbulent environment of rapid globalization full of chaotic surprises and crises. The ability to manage emergency, chaos, and crisis situations can be built by training politicians and bureaucrats, and by creating a cooperative culture of learning and relearning organizations. Second, governance capabilities also cover the ability to build collaborative partnerships with transparency and accountability. Third, it includes the capacity to build a strong yet accountable government. Fourth, it refers to the capacity to anticipate and “knowing what we do not and cannot know.

Efforts to use this guidance to build capacity at federal and state levels have seen uneven success. Ford (2018, p. 10) notes that “some organizations are more adept at using capacity tools to change, grow, and adjust to changing environments ... At a meeting of the FEMA’s National Advisory Council in November 2019, then-acting FEMA Administrator Peter Gaynor described current federal spending on natural disasters as ‘unsustainable’ ... The only way we can survive as a nation is to set aside pre-disaster money and build state and local capacity” (Ford, 2018, p. 10). This is another seemingly common-sense idea, yet amorphous in application. How can organizations build capacity?

First, it helps to know what you have. To measure capacity, Polidano suggests that we need to understand it as the “permanent administrative machinery of government.” This includes “the growing recognition of the links between state capacity and national economic performance ... to implement policies, deliver services, and provide policy advice to decision-makers.” Ideally, measuring internal and intergovernmental capacity would be best achieved

using a “policy-neutral measure that is [focused on administration and] ... independent of the policies adopted by the government of the day.” “External factors [such as] as ethnic fragmentation, civil society, political instability, economic crisis, aid dependency” and the influence of wealth sources such as philanthropic, corporate, and elite priorities on internal fiscal priority setting and service provision, impact an entity’s ability to measure and build capacity” (Polidano, 2000, p. 805). A comprehensive “policy-neutral” index that ties internal inventory to unmet mission needs, performance inefficiencies, and identified external factors would provide a baseline for planning for and implementing capacity expansion.

Building capacity, especially to the extent envisioned by Bowornwathana (2009), does not magically happen, nor does it happen overnight. It requires large amounts of effort, determination and money, over considerable time. Foundationally, the most important ingredient to capacity building is commitment. From lawmakers to front-line staff, buy-in and commitment, including financial guarantees, to support change and growth within the organization are essential to effecting reforms necessary to improve capacity and performance outcomes.

Achieving essential financial commitments can be the most challenging aspect of building sustainable capacity. Even once the dollars are committed, the ability to move forward is not always secure until the check clears, so to speak. The IRS can attest to this; in 2022 Congress allocated the funds needed increase customer service, and collections and enforcement activities, but then attempted to claw back a portion of those funds the following year (Cochrane & Rappeport, 2023). Similarly, agencies may be directed to expand capacity but then fail to receive the additional funds needed to meet the directive. Congress’ relationship with the Securities and Exchange Commission has been characterized by this type of support since the 1950s (Kunz & Martin, 2017). The end of the pandemic-driven supplemental funding, combined in some cases with tax cuts, has left many agencies facing projected short-term and long-term budget shortfalls (Goodman, 2024). Fiscal uncertainty can create an unstable environment for plans to expand, update or even maintain existing capacity.

Organizations and agencies may need to find creative ways to build capacity that make the most of fiscal limitations. Some options to consider include:

- Increase personnel training
- Build out management systems
- Strengthen leadership and build relationships
- Embrace a global perspective
- Create space for innovation
- Engage the public

Personnel Training

Adding to staff capacity can be accomplished by simply hiring more personnel, increasing the use of technology, and/or building expertise. Grindle & Hilderbrand (1995, p. 446) developed a framework that indicates how “training activities, organizational performance and administrative structures” are embedded in complex institutions. The framework illustrates how political, social, and economic factors impact organizations and their task networks and is designed to identify capacity gaps and help design tools that can be used to construct interventions to improve performance effectiveness.

Capacity building to improve public sector performance is thus an important focus of development initiatives. Several implicit assumptions underlie most such efforts: that organizations or training activities are the logical site for capacity-building interventions; that administrative structures and monetary rewards determine organizational and individual performance; that organizations work well when structures and control mechanisms are in place; and that individual performance improves as a result of skill and technology transfer through training activities.

Management Systems

Hou et al. (2003, p. 298) find that “capacity facilitates performance.” In a manner of what you see is what you get, limited capacity to achieve and analyze an organization’s performance outcomes will produce limited, if not inadequate, outcomes. Through the development of a “black box” model of government performance, they illustrate that internal systemic capacity is a critical precondition for performance. “The current trend of results-based governance prompts administrators to raise performance by changing malleable management variables.” In this case, training activities would be one component of a management system. They define management capacity as “the strength of, and integration among, management systems ... management systems per se are amenable to analysis and to comparison.” Consequently, management capacity varies “from government to government and, indeed, from system to system within governments” (p. 295). Their point is well illustrated in the case study discussed above. The varying levels of capacity within the three states to create and use performance metrics for even the Treasury Department’s very basic requirements illustrates how management systems, capacity priorities, and commitment from state leaders, fluctuate.

The use of contractors to increase capacity is worth noting here. As mentioned earlier, advantages of privatization include the ability to obtain specialized expertise and skills on demand, or a cadre of specialists, facilities and/or technologies, without the costs of having to create it inhouse, as well as the time savings to add such capabilities. Those advantages must be weighed against the loss of accountability, transparency and privacy, and the capacity costs of contract management. Other options to consider are commercialization (Brown, Ryan, & Parker, 2000) and marketization. Marketization, as considered by Kosar (2006, p. 23) “refers to the practice of requiring government agencies to compete with the private sector for government work contracts, or otherwise known as ‘competitive sourcing.’” Similarly, commercialization focuses on competition, however it is accomplished by encouraging the establishment of markets for specific public goods and service. “Commercialisation may be concerned both with delivering services on a commercial basis to increase efficiency through competitive mechanism and reorienting budgetary processes and funding regimes to a more commercial focus to achieve cost savings” (Brown, Ryan, & Parker, 2000, p. 207).

Leadership

Tiernan (2015, pp. 210) argues that leadership is essential to capacity building. She argues that policy capacity at its core is dependent on three skillsets – political, managerial, and analytical capacity – and at three levels – systemic, organizational, and individual (Howlett, Ramesh, & Wu, 2015, as cited). Leadership, however, is the “arch-stone on which other skills rest.” Within the policy arena, there is a “dual leadership” of governing partnerships between the policymakers and administrators that forms that basis for policy and organizational capacity. “Public leadership of governance and policy-making has long been acknowledged

as a collective endeavor. Success depends on effective partnerships” between lawmakers and career bureaucrats (Tiernan, 2015, p. 210). In relation to capacity building and innovation, leadership is important to relationship building, a necessary component in garnering support for expansion, and for identifying and implementing “the mix of managerial skills needed to get things done in the complex and contested terrain of contemporary governance” (Tiernan 2015, p. 210).

Global Perspectives

Current strains of nationalism notwithstanding, governance has become a global endeavor. Economic, financial, trade, immigration, war ... a crisis event in one country or continent impacts all others. Even everyday practices such as banking and shopping engage administrative and organizational capacities in numerous countries. In practice, some countries are better than others at keeping politics distinct from administration. This in and of itself contributes to the maintenance of administrative capacity (Carroll & Joypaul, 1993, as cited in Polidano, 2000).

Among the major dimensions of state capacity, the administrative dimension remains particularly crucial because of its importance for other dimensions. Some authors emphasize that in most developing countries that suffer from weak implementation capability, progress in administrative capacity is essential for carrying out functions related to other dimensions, such as tax collection (extractive), policing (coercive), and delivering services (interactive) (van der Wal & El-Taliawi, 2019, as cited in Haque et al., 2021, p. 214).

Discussions around state capacity in developing nations focus primarily on administrative capacity and issues of service delivery, policy implementation, and security, where capacity can be “equated to the implementation power of the state, a task that falls inherently under the bureaucracy” (Cingolani, 2013, p. 22, as cited in Haque et al., 2021, p. 214). Migdal (1988, as cited in Polidano, 2000) argues that state capacity in developing nations equates to “the ability to write ‘rules of the game’ that hold sway.”

For most developing countries in Asia, Africa, and Latin America, it is the administrative domain of capacity that is directly involved in implementing development policies. An advanced level of administrative capacity is most crucial for rapid economic development in high-performing countries compared to low-performing countries with weak administrative systems (van der Wal & El-Taliawi, 2019). Thus, for capacity building, most government initiatives are focused on reforming bureaucratic organizations, designing administrative programs, training administrative officials, and strengthening their commitment. However, in building administrative capacity, it is essential to consider ... contextual factors [such modes of state formation (capitalist, socialist, etc.), historical factors (i.e., colonialism), political culture and ruling alliances), and market system and natural resource endowments] affecting each country’s administrative system” (Haque et al. 2021, pp. 214–215).

INNOVATION CAPACITY

“Governance and capacity are intimately connected and that innovative, simultaneous blending of public management and civic capacities is needed to build trust and govern effectively under new and challenging conditions” (Hall, 2002, p. 23). Lewis et al., (2017, p. 291) define

innovation as “the process from ideas to successful implementation of these, which makes a substantial difference to an organization’s understanding of the needs it is addressing and the services it delivers.” In relation to capacity and capacity building, *innovation capacity* “is defined as a set of conditions that supports innovation or provides a supportive infrastructure; it is the set of factors that either allows innovation to occur or (more positively) actively encourages it.” Further, they note that engagement with “public service officers, service users and wider local community stakeholders ... [adds political] legitimacy for innovation as a public good” (2017, p. 291). This political context makes innovation in the public sector more complicated than that in private industry and makes the capacity to turn the needs and priorities of constituencies into actual innovations all the more important for innovation capacity in the public realm.

There are a variety of factors that influence a public organization’s absorptive capacity when considering innovation capacity, such as the effects of “the dynamics of the local environment it operates in, its public tasks and its investment in knowledge processes” (Lewis et al., 2017, p. 291).

Bowornwathana (2009, p. 1032) suggests that we should design strategic capacity.

[This] involves three key strategies: adaptive strategy, service delivery performance strategy, and development and advancement strategy. Adaptive strategy capacity is the ability to respond and adapt to changing conditions, and the ability to think and strategize beyond maintenance of the status quo. Service delivery and performance strategy is the ability of governments to perform well in routine, emergency, and crisis situations. Development and advancement strategy is the ability to constantly strive toward development, growth, and advancement.

The advanced globalization in which we find ourselves, coupled with increasing climate, social and cultural crises, require governments to prepare for increases in competition for resources, financial crises, security threats, national disasters, and pandemics. All of which demand a substantial increase in innovation capacity (Lewis et al., 2017).

OUTLOOK FOR FUTURE RESEARCH

Public-management investments and reforms are one way to enhance governance capacity, but since governance is now clearly larger than government, and has always rested ultimately with citizens, capacity concerns must not be limited to government and public management narrowly defined. Substantial needs for better education, training, and information systems exist in the nonprofit sector and among businesses serving as partners in public policy. More importantly, since governance is ultimately the people’s responsibility, major capacity issues are associated with the quality and strength of the civic sector and public involvement. (Hall, 2002, p. 39–40)

There is considerable research on capacity, however the focus tends to be on defining the various venues (politics, policy, administration, organization, etc.) and perceptions and interpretations of their characteristics. As Kunz & Pattison (2023) note, there is a need for capacity building around preparation and response within federal and state governments for transformational events. Increasing capacity to design comprehensive models to collect and compare baseline data (governance and service provision as a static activity and related performance metrics) is requisite to advancing the innovative capacity necessary to design service solutions. The warp-speed advancement of technology and introduction of artificial intelligence

(AI) necessitate studies on how advancing public capacity could impact governance and effective and efficient service delivery. Further, considerations of innovation in public service delivery rarely mentions risk, and then primarily as “risk minimalization rather than risk management.” That perspective tends to stifle rather than facilitate innovative thinking, making research on managing risk to facilitate innovation all the more essential (Osborne & Brown, 2011, p. 1346).

The study of capacity writ large contains ample room for research that advances our understanding of administrative and organizational, policy and governance, and participatory capacity as they relate to innovation, crisis and/or transformative events, leadership, legitimacy, and public engagement, global partnerships and collaboration, fiscal policy and economic stability, space travel, and, of course, technology. More pointedly, studies of agencies’ and programs’ fluency with and use of performance measures (and best practices therein) could point to areas in need of capacity enhancements, and the characteristics required (i.e., personnel with specific skills, technology, equipment, etc.), which, in turn, could lead to improvements in the effectiveness of public service. Studies of the value added from integration of QCD assessment methods to identify capacity shortfalls and identify remedies could offer solutions for more efficient service delivery. In both cases, the predominance of available research is on institutions outside the United States; a more rigorous attention to national issues, particularly in anticipation of significant budget shortfalls resulting from state tax reductions and the expiration of COVID-related supplemental funding, could provide needed guidance for struggling state and local governments.

Continued research into government capacity needs in all aspects is essential. We are just a quarter of the way into the twenty-first century, yet, as Farazamand (2009) notes, the century is already “characterized by rapid change, globalization, hyper-competition, and hyper-uncertainty. Traditional models of governance and public administration are no match for the challenges of this chaotic environment.” He argues for building new administrative capacity – predicated on advanced research – in response to these serious governance dilemmas. Lindsey (2021), takes the need for continued research a step further, writing that “the calamities of the 21st century have made it painfully clear that American state capacity is not what it once was. This deficit not only undermines effective public policy in a wide variety of important domains ... it threatens the legitimacy and continued vitality of liberal democracy as well.”

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