Enabling Social Policy Innovation: Trends and Promising Directions

for Oxford International Handbook of Public Administration for Social Policy:

Promising Practices and Emerging Challenges,

edited by Karen Baehler, et al.

Section VI, Chapter 61

Stephanie Moulton, Jodi R. Sandfort and Weston Merrick

May 2018

Abstract:

The role and functions of government are being challenged around the work. Yet, public sector innovation is one response, driven by leaders and organizations who want address complex, 'wicked' problems, shifting and increasing citizen expectations, and new levels of political and economic insecurity. This chapter provides an overview of interesting developments in North America. After laying out what research reveals about the process of innovation, we consider recent trends to facilitate innovation in social policy and describe a new promising approaches taking root. Many recent trends, such as co-production, behavioral science or implementation science, either focus upon technical or managerial innovation. Yet integrating the two holds more promise, as it is often necessary to address both the core programmatic technology and the organizational or field context. We conclude by exploring the potential of design-based research and pragmatic experiments for engaging scholars in supporting innovation within the social sector.

Keywords:

Innovation, program technology, social policy, social programs, design-based implementation research, pragmatic field experiments, co-production, behavioral science, implementation science.

Developments around the world suggest that older notions about the role and functions of government are not adequate to respond to the challenges of the 21° century. While much was made of the move from public administration to new public management in the 1990s, a move from hierarchical accountability and rules to reliance on multiple management tools to improve performance (D. Osborne and Gaebler 1992; Salamon 2002; Kettl 2000), increasingly scholars note the limitations of those approaches given new social, economic, environmental, and political issues (Ansell and Torfing 2014; Bryson, Crosby, and Bloomberg 2015; Denhardt and Denhardt 2000). This older approach was grounded in theories of public choice economics that emphasized principal-agent relationships between the state and nongovernmental actors, such as nonprofit organizations and citizen groups. While performance measurement has become widespread across public and nonprofit organizations, a single-minded focus on performance has neither quelled public cries for increased government effectiveness nor enabled public sector leaders to respond to significant public problems (Bevan and Hood 2006; Radin 2006; Moynihan 2006).

In North America, there is a wide recognition of the need to innovate in the delivery of social programs. Of particular concern is the how public programs can be better designed to more effectively serve those most in need. For example, vulnerable populations—those in deep poverty, the elderly, and those with tenuous citizenship statuses—enroll the least often and are most likely to be kicked off of social programs due to procedural burdens (Kaufmann and Tummers 2017; Mullainathan and Shafir 2013; Mani et al. 2013). Growing frustration to positively impact poverty has lent an urgency to developing new approaches.

Public and nonprofit management scholars have important roles in enabling innovation in social policy and programs. Typically, private sector innovations are attributed to market pressures and the need to differentiate goods and services from competitors. While public agencies are often not subject to the same market pressures, public affairs innovation is driven by the real need to grapple with complex, 'wicked' problems, shifting and increasing citizen expectations, and new levels of political and economic insecurity (Ansell and Torfing 2014).

In this chapter, we explore what is known about innovation, consider recent trends to facilitate social policy innovation, and describe a new promising approaches taking root in North America. In defining innovation, we note that research has uncovered a distinction between managerial innovations that often underlie governance reforms and technological innovations that seek to change the core of a program or policy. Recent trends follow this demarcation, emphasizing either technological innovations, such as effort to engage co-production with citizens and draw upon behavioral science, or managerial innovations to improve adoption of research-based interventions through implementation science. Yet these developments overlook the importance of integrating technological innovation and the context within which it is embedded. We conclude this chapter by providing examples of how scholars can help facilitate such integration in both the design and evaluation of social policies. In this way, scholars can poise themselves to participate in enabling innovation among public organizations to improve the likelihood of making progress on persistent social problems.

Section One: Defining Innovation

Most basically, innovation can be defined as bringing a *new* idea into being within a given context. The emphasis here is on a *new* idea within a particular context, differentiating it from others types of organizational or institutional change. To be innovative, there needs to be

disruption of "established practices and routines" or challenges to conventional perspectives (Ansell and Torfing 2014; Torfing 2016). That is why it is such an important topic for modern public administration, where many conventional management and organizational practices and routines are legacy of another era, not focused upon delivering public value or engaging citizens in democratic means (Bryson, Crosby, and Bloomberg 2015). While many people might equate innovations with new inventions, innovations only need to be understood as new within the particular context where it is being carried out. To be truly considered effective, an innovation needs to be *integrated* within the organization. As others more simply state, innovation is new ideas that work (Mulgan and Albury 2003).¹

Conceptually, innovation is often broken down into two major phases: (1) the initiation of an idea that is new to the context in which it is being considered, and (2) adoption including the development, implementation and integration of the new idea into practice (Ansell and Torfing 2014; Damanpour 1991; Damanpour and Scheider 2008; Wolfe 1994). However, like many social processes, these phases are not mutually exclusive. It is often during implementation of an existing program or process that new ideas are initiated and explored. Feedback loops are expected between trying out new solutions and further developing it to be more appropriate for the context.

Innovation often arises from individuals' creativity within a given context, as groups try to solve a presenting problem. Innovation also can originate externally, as part of the ideas coming from

_

For example, the adoption of a new form for processing welfare applicants is not necessarily a new innovation if it is simply formalizing an existing practice. Adding fields to an existing required document to collect additional demographic data on participants also is likely not an innovation. However, if the new form represents a substantial shift in the current process and how decisions are being made, it may very well be innovative. For example, an agency may intentionally seek to incorporate behavioral insights about "framing" and "self-efficacy" into their intake process to improve efficiency and effectiveness.

a governing board, community planning process or policy change. It can be inspired by external events or consideration of how others try to solve a similar problem in a different setting. In fact, in the U.S., there is a robust literature on policy diffusion, or how new policy ideas spread from one jurisdiction to another (Shipan and Volden 2008; Berry and Berry 1999). As one scholar puts it: "When subnational governments innovate, successful solutions can diffuse to other subnational states with similar preferences and problems" (Bednar 2011, 273). This research documents that innovation diffusion can occur through learning, but also be the result of competition, imitation or coercion (Shipan and Volden 2008; Berry and Berry 1999; Nicholson-Crotty and Carley 2016).

Regardless of the initial source of the idea, innovation often proceeds through an unpredictable, nonlinear process (Torfing 2016; Van de Ven et al. 2008; Pavitt 2009). There is a fundamental tension between the agency of actors who conceive of an innovation and the inertia of institutions that are slow to adapt to new changes (Fagerberg 2009). Often, there is a process of divergence and convergence among actors' ideas and actions, as institutional forces check things that deviate too sharply from what is understood to be viable in the context (Lam 2009).

Research reveals such patterns but the process of change is still difficult to predict in particular cases (Torfing 2016; Van de Ven et al. 2008). Because actors are working to resolve problems and challenges within a particular complex social system, they often question existing assumptions and operations. In some cases, this can alter the underlying theory or understanding of the problem and its solutions, in what is referred often to as "third order" change or double-loop learning (Argyris and Schön 1996). In this way, innovations alter what is understood to be viable, and actors' understanding and awareness within a particular setting evolves (Van de Ven et al. 2008).

Types of Innovation

We wanted to attend to basic definitions of the concept because the term 'innovation' is often regarded as a "magic" concept (Pollitt and Hupe 2011). It denotes a desirable state for organizations and leaders, and its normative attractiveness and implied consensus might decrease scholars' interest in the analytical use of the construct. In fact, in the public affairs literature, innovation can become a catch-all term to describe public sector change. Yet for deeper understanding of the construct and its relevance to social policy, it is useful to distinguish between different types of innovation.

Innovations targeting general organizational structures and processes, not directly tied to a specific program (or policy), are referred to as *administrative* or *managerial* innovations.

Innovations tied directly to the processes or products of a particular program (or policy) are referred to as *technological* innovations (Damanpour 1991, 1987; Damanpour, Walker, and Avellaneda 2009; Walker, Damanpour, and Devece 2011). Within technological innovations, the focus can be a change to a *product or service*, or a change to a *process* by which a product or service is carried out (Damanpour 1991; Walker 2008).

Administrative or managerial innovation can be defined as "the generation and implementation of a management practice, process, structure, or technique that is new…and is intended to further organizational goals" (Birkinshaw, Hamel, and Mol 2008, 829). Such innovations focus upon increasing the efficiency or effectiveness of organizational internal operations. There is a substantial body of literature on administrative innovation in the public sector that draws from theories of organizational design and organizational change. This research includes studies of organizational reforms, new public management, streamlining operations, and contracting out services (Boyne and Walker 2002; Damanpour and Scheider 2008; Walker, Damanpour, and

Devece 2011; Fernandez and Wise 2010). For example, Damanpour and Schneider (2008) analyzed the factors that affected the adoption of innovations to reduce the size of U.S. local governments, including adopting private sector quality management techniques, increased cooperation, flexibility and streamlining.

Technological innovations are directly related to the primary work of the organization and result in changes to the products or services offered to the end user (Damanpour, Walker, and Avellaneda 2009). Rather than focusing upon internal operations, these innovations attend to external market or public needs. This could be the provision of a new product or service, a change in the product or service for existing beneficiaries, or providing the same product or service to a new target population (Walker 2008).

In the private sector management literature, there is considerable attention to technological innovation. This is because firms invest in product or service innovations to capture market share and create more private value for their shareholders. They invest in research and development (R&D), and depend upon intellectual property and copyright laws to protect this investment. In studies of product innovation, for example, there is considerable attention to the development of new ideas through R&D laboratories and other means, exploring how those ideas are manifested through new tools, processes, and supply chains that adapt technology in light of constantly changing market conditions (Pavitt 2009).

In the public affairs literature, there is increasing attention to technological innovations, and in particular those technologies targeting the provision of new services to meet client needs (Osborne 2013; Hartley 2005). Normatively, service innovations in the public sector seek to maximize public value rather than shareholder value (Bryson, Crosby, and Bloomberg 2015). This is particularly relevant for social policy innovation, where the effectiveness of social policy

is often evaluated in relation to whether or not the innovation creates change within the target population. A recent trend in this line of research is to carefully examine the sites of public service provisions – the frontlines where systems and citizens interact – and how 'human-centered' design and citizen engagement can be used (Bovaird 2007; Bason 2017; Ansell and Torfing 2014).

While analytically valuable, we argue the line between different types of innovations cannot be too starkly drawn. Administrative innovations are often required with the adoption of new program technology (Walker 2008; Damanpour, Walker, and Avellaneda 2009). And, changes in administrative structures and processes can generate new ideas for program or policy innovation. Furthermore, while the literature often refers to innovation within a single organization, it is natural to consider innovations that span multiple organizations or operate through networks (Mulgan and Albury 2003; Obstfeld 2005; Torfing 2016). A recent book, by Torfing (2016) identifies collaboration among administrative entities as an innovation in and of itself that may complement other types of innovative change. Collaboration can provide a source of ideas, more complete problem definition, and more comprehensive processes for testing and assessing new technological solutions.

Factors Affecting Innovation

Distinctions between types of innovation have proven to be empirically relevant for predicting the adoption of innovation. The set of factors that facilitates or impedes administrative innovations are different from the factors that facilitate or impedes product and service innovations (Damanpour 1991). For example, large public agencies in the U.S. tend to have more formal, centralized structures than private firms or smaller nonprofit organizations. This structure may be conducive to the adoption of administrative innovations in which centralized authority is

needed to make agency-wide change. However, control-focused, bureaucratic structures have been shown to inhibit technological innovations; collaboration and flexible networks are often needed to enable technological innovations(Damanpour 1991; Torfing 2016). This helps provide an explanation for why policy or program specific innovation occurs less frequently in bureaucratic public organizations than in the private and nonprofit sector (Damanpour 1991; Borins 2001). When public sector technological innovation occurs in products or services, the majority involved collaborations across agency boundaries (Mulgan and Albury 2003).

In the private sector, considerable research examines how organizational structure and learning affect the capabilities for innovation (Lam 2009; Burns & Stalker, 1961). Key dimensions of organizational structure, such as the degree of formalization, communication channels, subdivisions or operational teams, and characteristics of network ties, are critically important to how firms learn (Reagans and McEvily 2003). Innovation that is incremental, in a steady-state, is more common in hierarchical organizations operating in a stable, mature environment where dense networks of specialists apply adaptive learning to their work (Lam 2009). Radical innovation, by contrast, is more common in flat organizations that have fewer formal structures in place that may impede the adoption of a completely new way of doing things.

Studies of private businesses reveal that while organizational learning, or the ability to absorb and recombine new information, does not always generate immediate breakthroughs, it is often considered a necessary precondition for innovation (Cohen and Levinthal 1990; Bessant 2005; Crossan and Apaydin 2010). The receptivity of individuals within an organization to learn, or their absorptive capacity, is higher when the recipient and sender have common knowledge or associations (Reagans and McEvily 2003; Cohen and Levinthal 1990). This creates a bit of a management paradox: the potential for innovation is highest when diverse teams are assembled

and external ideas are assimilated; however, the presence of novel ideas decreases the initial absorptive capacity (Cohen and Levinthal 1990). Teams must have time to associate more often, to develop heuristics that increase the ease of knowledge transfer across boundaries (Reagans and McEvily 2003; Tell, et al, 2017; Uzzi 1997).

In studies of private sector innovation, there also is an explicit recognition that organizational ability to learn is directly influenced by organizational culture and operational routines. To spread ideas, organizations need to value synchronistic engagement across formal boundaries. They need to establish routines for identifying new ideas from within functional units, experiment with the process, consolidate the gains, and spread learning (Van de Ven and Poole 1995). They need to rely upon artifacts and tools to cross the boundaries of knowledge and operational practice that shapes how organizations function (Kravcenko and Swan 2017; Carlile 2002). Organizations need processes in place to allow space for experimentation and the consolidation and spread of the best ideas (Bessant 2005).

Thus research about innovation that considers the interactions between organizational structure, culture and management and policy and program technology is more fully developed in studies of the private sector. The market demand for innovative technologies naturally has caused scholars to focus their attention there. However, changes in the public arena in citizens' expectations now also necessitate that public management scholars attend to this important topic. In the rest of this chapter, we explore some trends and promising approaches.

Section 2: Recent Trends in Social Policy and Program Innovation

In the U.S. and Canada, there are various scholarly communities that are trying to bring science to practice to stimulate innovation in social policy and programs. One approach - grounded in interpretivist research methodology - engages public service users directly in the provision of

services, often referred to as coproduction. Another draws upon behavioral science to better predict how users may interact with and respond to particular interventions. Both of these approaches focus largely on developing on technological innovations – the development and implementation of new programmatic or policy ideas. A final approach, implementation science, focuses on controlling implementation conditions to increase the likelihood that innovations can scale and adopted in other settings. This often tries to introduce administrative innovation around the goal of scaling take up of effective technological ideas. We provide brief reviews of these approaches, noting their contributions and limitations in enabling social policy innovation.

Co-Production

Many public affairs scholars are calling for a reorientation of the public sector around citizens and service recipients (Ansell 2011; Bryson, Crosby, and Bloomberg 2015; Quick and Feldman 2014; Emerson and Nabatchi 2015; Weber and Khademian 2008; Feldman and Khademian 2007). This reframing reflects important notions about origins of public institutions: their legitimacy comes from democratic principles of working for and on behalf of citizens (de Tocqueville 1835). It also pushes back against the often punitive social construction of the recipients of public social welfare services. Historically, the majority of U.S. social policies focus on regulating target group behaviors, changing preferences, or rationing public benefits because of limited funding and availability (Patterson 1986; Katz 1989; Gordon 1994). This scarcity mindset leads to social constructions of recipient worthiness (or more often, lack of worthiness), which directly affects who and how citizens are provided public services (Soss, Fording, and Schram 2011).

Existing theory and evidence suggests that when implementing programs, it is important to understand the degree of change required by the system. When the 'treatment' can be isolated in

a pill, for example, it is easier (although not fully guaranteed) that physicians will prescribe and patients will consume, what is needed to address the challenge. However, in many social programs, such as mental health, homeless or disability services, the technical core of the service or product is indeterminant. There is more ambiguity involved in what it takes to make the desired change.

For one, in many social policies, human beings are the 'raw materials' of technological innovation, either as frontline implementers, such as teachers, counselors, case managers, or as the target population, such as students, patients, and clients. While the inputs are largely known, the technical knowledge at the root of the intervention is often difficult to codify. Because people interpret, modify, and adjust the nature of the product or service given their own experiences and judgements, it is impossible to predict what will cause a desired outcome in all cases (Handler 1986; Hasenfeld, 1983; Sandfort 2010). This does not mean that knowledge isn't developed, shared, or influenced by what research or experience suggests 'works,' but rather that the process is rarely predictable.

One outgrowth of this fact is research that describes how interactions and resources shared between the system and the target group create the policy and program in practice, what scholars have termed co-production (Bovaird 2007; Alford 2002; Bifulco and Ladd 2006; Osborne and Strokosch 2013; Parks et al. 1981). Some social programs focus on "processing people," such as eligibility screening for publicly provided benefits or services (Hill 2005; Hasenfeld 1983; Sandfort 2003). Others focus on "changing people," such as supporting them to overcome disabilities in order to live independently, or finding and retaining employment. Coproduction occurs in both types of programs, as service recipients make sense of and respond to their

experiences in the system. It is a fundamental, intrinsic interaction between any service organization and the end service user.

Attention to co-production refocuses implementers from the rules of the program to how clients' experience the program. It recognizes that most people experience their government through forms, fines, and lines and that these interactions shape people's expectations of government (Soss and Moynihan 2014; Mettler 2002). Citizens iteratively draw conclusions about the desirability of the offering, how the state views their claims, and the effectiveness of their government. As the forms get longer, fines get more arbitrary, and lines get longer, fewer people seek services. People care about "procedural justice" or fairness in the process to get services, as much as the actual outcome of the program (Lind and Tyler 1988; Moynihan, Herd, and Harvey 2014)).

Osborne and Strokosch (2013) note that co-production can operate at three distinct levels: operational, where program management actually empowers clients to share their experiences and expectations and use it to shape official service parameters; strategic, in which target group members' are engaged to influence the program design; and, enhanced, in which the target audience experiences and knowledge fundamentally shape the innovation itself. At the operational level of co-production, for example, public health nurses may engage parents in their homes, to learn more comprehensively about the families' strengths and challenges, to craft short and long-term actions steps that build on the strengths and find ways of overcoming challenges. At the strategic level, co-production involves target group members sitting on advisory council or engaging in strategic planning sessions. Enhanced coproduction explores problems from clients' lived experiences and develops potential solutions as the core of innovation.

To actually respond to social inequity, chemical dependency and mental health, disability and unemployment, coproduction scholarship reveal that attention must be paid to refining the service experience, where the policy is produced and simultaneously consumed. This understanding can support innovation in social policy and program design. It can provide new ways of technically responding to top-down directions from higher levels of government to alter how clients experience the system. However, one challenge is that in North America, scholarship about co-production is fairly nascent in health and human services. Most of the development of these ideas occurs in Europe, where governments have taken more proactive stances in capitalizing upon co-production in developing new social innovations (Bekkers, et al 2013). Additionally, the existing scholarship in this area often focuses upon describing the processes and outcomes of this form of technical innovation rather than also considering how administrative arrangements and practices need to be are aligned to implement such solutions.

Behavioral Science

In the last decade, increasing development in the behavioral sciences has provided new tools for those interested in social policy innovation. This line of policy scholarship expands the notion that individuals and institutions are not the rational utility maximizers found in traditional economic models, but instead exhibit predictable cognitive, social, and emotional shortcomings (Madrian 2014; Thaler and Sunstein 2008; Kahneman 2003; Amir et al. 2005). This reality means that people make choices that are at odds with their long-term self-interest (John, Smith, and Stoker 2009). While we have intentions and preferences to take positive action, such as getting a flu vaccine, our limited attention and immediate needs often prevent us from acting on these intentions (Madrian 2014). Behaviorally informed social policy recognizes cognitive limitations and common psychological biases, and builds this understanding into policy design

and implementation. Even small tweaks in the design and presentation of choices can enhance citizen outcomes and improve public value.

In the U.S. and Canada, social policies are increasingly being designed and redesigned with psychological insights to 'nudge' behavior that is more desirable for the individual or society (Thaler and Sunstein 2008). Small changes in the implementation of a policy, such as reminders, new frames, and defaults, have impacts on program participation. These impacts have been consistently found in many areas in U.S. social programs, such as workers claiming the Earned Income Tax Credit (Manoli and Turner 2014), food stamp (SNAP) signup and reenrollment (Andrews and Smallwood 2012), the use of nutritional support for new mothers and their infants under the Women, Infants and Children (WIC) program (Brien and Swann 1997), college persistence (Hoxby and Avery 2012; Hoxby and Turner 2013; Castleman and Page 2016), and signing up citizens to be organ donors (Johnson and Goldstein 2003).

Patterned after the Behavioral Insights Team in the United Kingdom, both the U.S. and Canadian federal governments have opened offices to encourage the use of behavioral solutions to public policy. The Canadian government created Policy Horizons Canada in 2011 with a mandate to help "the federal public service anticipate emerging policy challenges and opportunities for Canada in a rapidly changing and complex world." In providing foresight, Policy Horizons Canada emphasizes the use of behavioral sciences (Policy Horizons Canada 2017). In the U.S. under the leadership of President Obama, the White House Office of Science and Technology Policy created the Social and Behavioral Science Team (SBST) in 2014. Their purpose is "to ensure that our best understanding of behavior- how people engage with, participate in and respond to policies and programs- is integrated into the policymaking process" (Executive Office

Ξ

² http://www.horizons.gc.ca/en/content/history

of the President National Science and Technology Council 2015). The effectiveness of these innovative initiatives is often dependent on the political leadership—as of the writing of this chapter, the SBST has no active staff under the Trump administration.³ Nonetheless, many of the partnerships are still ongoing and several federal agencies and subnational governments have launched their own initiatives independent of the federal office.

In 2010, the U.S. Department of Health and Human Services' Office of Planning, Research and Evaluation sponsored fifteen behaviorally-informed interventions, touching nearly 100,000 clients through the Behavioral Interventions to Advance Self-Sufficiency (BIAS) project. While additional projects are continuing through the BIAS Next Generation initiative, include a small randomized control trial to explore the consequences of small technical changes in program implementation. In the final report of the initial projects, the majority of the fifteen low-cost behavioral interventions produced consistent, scalable impacts for program participants (Richburg-Hayes et al. 2017). For example, one intervention sought to increase parent attendance in meetings to verify employment status for the Indiana child care subsidy program. The research team worked iteratively with local partners to identity opportunities to use behavioral principles to improve outcomes, including simplifying renewal letters and providing personal appointment reminders. These interventions increased the percentage of parents who attended their first appointment by nearly 11 percent and on-time renewal of child care subsidies by 3 percent, at a cost of only \$2.80 per client/per month. These types of studies suggest that even small changes in service design, like making it easier to comply with administrative requirements, can make meaningful impacts on program participation and retention.

_

³ In fact, the SBST website has a banner that notes "This is historical material "frozen in time" on January 20, 2017. This website will no longer be updated."

The behavioral science literature offers lessons for reformers interested in decreasing administrative burden for public program participants. For programs with low administrative burden, like the U.S. Social Security program for seniors, take-up rates approach 100 percent. Yet in public programs with higher burden, like the U.S. Supplemental Security Income (SSI) for citizens with disabilities and Medicaid for citizens in poverty, participation hovers around 25-60 percent for eligible participants (Currie 2004; Heinrich 2015). Auto enrollment, presumptive eligibility, and longer recertification periods decrease burden and lead to greater program participation. For example, one initiative found that switching to categorical eligibility instead of voluntary enrollment increased food stamp (SNAP) caseloads by six percent (Andrews and Smallwood 2012). Because take up rates of many programs are not uniform across groups, behavioral nudges can also increase take-up in underserved populations (Bertrand, Mullainathan, and Shafir 2006; Mani et al. 2013; Kuye, Frank, and McWilliams 2013).

Instrumentally, applying behavioral insights to social policy design and implementation allows for better outcomes through increased service uptake and program adherence. By introducing low cost and low touch "nudges" in program delivery, there is the potential for small, consistent improvements in desired program participation. However, this approach is not well-suited to producing larger administrative changes in complex governance systems. Such "shoves" require requires political skill, stakeholder buy-in, and institutional capacity.

Implementation Science

Both coproduction and behavioral economics are approaches that focus on improving design of interventions, or supporting technological innovation. Once developed, questions about how to best 'scale up' or replicate these innovations throughout the system come immediately into focus. A robust field of "implementation science" evolved in health, community psychology,

and other fields as one way to address these questions (Nilsen et al. 2013; Saetren 2005; Roll, Moulton, and Sandfort 2017). Intellectually grounded in early scholarship about the diffusion and dissemination of technological innovation in agriculture and medicine (Rogers 1995; Nilsen et al. 2013), scholar are concerned with how to reproduce programmatic innovation in different contexts.

The research grew rapidly in the last twenty years. The American Psychological Association created a professional section at their annual conference to enable research on implementation to be more easily shared. A scholarly journal entitled *Implementation Science* was established in 2006 to provide a publishing venue. A meta-analysis by Joseph Durlak and Emily DePree reviews over 500 quantitative studies and concludes there is "...strong support for the premise that effective implementation is associated with better outcomes" (Durlak and DuPre 2008, 340). According to their analysis, the magnitudes of effect sizes are two to three times higher when program replication is carefully planned.

The appeal of 'scaling up' research-based interventions is clear and the promise of implementation science is being explored in a number of social policy fields. In the United States, federal and state agencies in Education, Health and Human Services, even Veterans Affairs, invested in this approach as a means for promoting 'what works.' They commissioned white papers and encouraged more understanding of organizational change. Many private firms and technical assistance providers, such as the National Implementation Research Network, disseminate frameworks and tools that provide direction to state and local public managers attempting replication of research-based interventions. In Canada, the Institutes of Health Research and other national agencies also promote implementation science through training programs and funded research to support knowledge translation. All of these activities are

supported by a Global Implementation Initiative which hosts international conferences and networks to share of analytical models and research approaches.⁴

While there are considerable benefits of documenting what 'works' in social policy and programs, knowledge about how to ensure faithful replication of core interventions is more elusive. Numerous models now exist to predict the conditions under which faithful replication of technical innovations will occur (Aarons, et al 2013; Greenhalgh et al. 2004; Meyers, Durlak, and Wandersman 2012; Tabak et al. 2012; Damschroder et al. 2009). Yet, these predictive models are excessively complicated. For example, in a Greenhalgh and colleagues (2004) study of health innovation replication, sixty variables are included in the model. They include factors about the technical core of the intervention itself, as well as those denoting individual adoption of innovation, and system readiness, implementation processes, system antecedents, and design. In short, there are many factors to consider when attempting to replicate the technological innovation and enable administrative innovation. Unfortunately, clear lessons about which of these factors are most significant elude those who approach the challenge through the lens of implementation science.

Section 3: Supporting Social Innovations with Engaged Research

It seems clear that technological, program innovations that enhance the products and services in social policy offer significant promise for generating solutions to complex problems. However, identifying solutions is only part of the innovation challenge—the other challenge is the integration of the innovation within the administrative context so that it can be brought to scale and become part of day to day practices. This can be even more difficult in social policy systems

-

⁴ https://globalimplementation.org/

where the authority to create change is shared between various levels and units of government, nonprofit agencies, and foundations. Simply lifting a good idea from one setting and placing it into another setting is likely to fail without adjusting the idea to fit within the constraints of a particular environment. Moreover, social policy systems are complex, and one small change to a specific part of the system can affect other parts of the system in unpredictable ways. A coproduced improvement in service experience, behaviorally informed innovation, or implementation of research-based intervention all might have unintended and sometimes negative consequences in another part of the system. The recognition of complexity of social systems is not new, but there is increasing awareness of how this complexity affects policy and program innovation and implementation (Colander and Kupers 2014; Innes and Booher 2010; Morcol 2005; Cairney 2012; Sandfort 2018).

In our own writing, we talk about these multi-actors, multi-level settings as strategic action fields to emphasize the central role that peoples' actions have in shaping how implementation in complex systems unfolds (Sandfort and Moulton 2015; Moulton and Sandfort 2017). The multi-level settings – from the macro policy fields, to organizations, to frontlines — often operate distinctly and produce distinct results, which make it impossible to predict how innovations at one level might be understood, applied, or integrated at the other levels. Yet individual actors, who sometimes are referred to as "policy entrepreneurs" in the literature can draw upon resources in one context and bring them into use in another context to support the development of new innovations (Mintrom 1997; Moulton and Sandfort 2017).

Because we recognize both that social policy systems are complex and that individuals have potentially important roles within these contexts to support innovation, the rest of this chapter describes two promising approaches that enable scalable and sustained social policy innovation.

The first focuses on the design of innovations, and the second on evaluation. Both build on insights from coproduction, behavioral science, and implementation science, but also take into account the context-dependent nature of change, and do so in ways that recognize the importance of human agency and ingenuity in influencing how change unfolds. Both also reflect how technical and administrative innovation often proceed simultaneous if it is to be sustainable. Additionally, both do not view a scholar's role as an external observer who brings in research-based ideas or evaluates without knowledge of the system. From this vantage point, a researcher invests in understanding context, operating as an engaged, strategic actor who can bring knowledge and skills to enabling sustained innovation in social policy and programs (Van de Ven 2007).

Design-Based Research

As Herbert Simon (1996) described, design science focuses on changing current conditions into a more desirable state. Design takes seriously the existing administrative and social conditions in a particular context (Bason, 2010, 2017; Bryson, Crosby, & Stone, 2006). Yet it also introduces new information to create what should be, through various tactics such as summarizing existing research, seeding behavioral experiments, engaging others, and supporting adjustments through rapid-cycle feedback mechanisms (Romme 2003; Ansell and Torfing 2014; Patton, McKegg, and Wehipeihana 2015). Rather than focusing on linear causation in general cases, design-based research is focused on understanding causality in a specific setting (Lewin 1946; Romme 2003). Using rigorous methods for data collection and analysis, it both informs contextual decision making and offers more generalizable and future-oriented insights to advances knowledge.

Research in this area is still in early stages of intellectual development within public policy and management (Bardach 1998; Bason 2017; Barzelay 2012; Fishman, et al 2013; Sandfort 2018).

However, design is well developed in other fields. Designers have developed and design schools teach a process for attending to the expressed and unexpressed needs of users, making and testing prototypes, and embedding new ideas into systems. These approaches employ context-based problem solving and explicitly depend upon creativity (Cross 1982; Schön 1987; Dunn and Martin 2006; Martin 2009) that push organizations and systems to more quickly learn through experimentation and failure (Schön 1987). Storyboards, personas, and scenarios are among the many narrative tools used to help visualize an idea as it unfolds over time (Brown 2009). Such tools are key components of curriculum and research in schools of architecture, engineering and private sector management. Yet, they are also well-suited to the wicked problems of public service delivery.

In fact, Ansell and Torfing (2014) note three design characteristics that suggest its significant promise in supporting public sector innovation at larger scale: design is problem- and future-oriented, it uses heuristic devices to make choices concrete, and it requires the creation of collaborative forums. It moves scholars from focusing attention upon documenting and describing what is, to considering how theory, systematic research, engagement of actors can help undercover what may be. This ontological shift is quite significant. However, some principles of using this approach relevant to social program and policy are coming into focus. First, it is important for investigators to take the time to understand the context. How do practitioners understand the nature of the problem they are trying to solve? What resources do they draw upon to assist them? What are experiences of the target group experiencing the policy or program? These questions form the tenets of human-centered design, in which the experiences and mindset of people within the social system are assumed to be causally significant. This often means that investigators cannot be removed from the setting. Rather scholars are engaged in the

problem-solving space in the tradition of action research (Lewin 1946). It involves both understanding the context and taking seriously the knowledge of people who operate within it. Second, while design-based research relies upon conventional social science methods of data collection, such as semi-structured interviews, surveys, experiments, and observations, it also draws upon other approaches. Much as researchers in architecture and urban planning use graphic representations to understand and solve spatial challenges, material artifacts can be useful to design-based public management researchers. Evaluation documents, visual strategy maps, tool kits, user-journey process maps – such tools and resources can probe the existing system and provide a stimulant to change systems (Sandfort and Quick 2017). These artifacts either be co-produced by people within that setting through engagement forums, focus groups, or other methods. But they also can be introduced from outside the system to provide information and inspiration for continued work on the innovation (Sandfort 2018). Within the particular context, these artifacts may be recognized to operate as 'boundary objects' that enable differences in knowledge, perspective, and beliefs to be overcome (Star and Griesemer 1989; Quick and Feldman 2014). When strategically deployed, they can be quite significant in moving forward the innovation process.

Thirdly, design-based research often requires facilitating collaborative forums where dialogue, learning and decision making can occur. As the research on innovation reveals, administrative arrangements are often resistant to change. Facilitating open discussions within organizations and systems provide a means for understanding and addressing the resistance to change that can often subvert innovation. When implemented effectively, engagement events or processes can enable co-creation, and provide opportunities for service users, staff, and managers work

together to identify problems, interpret data and information, and make collective decisions about how to move forwards (Bryson et al. 2013; Sandfort and Quick 2017).

Design-based research creates conditions that help to support innovation processes. As suggested above, artifacts such as reports and diagrams created during the design process itself often operate as inputs to program or policy decision-making. Through gathering data about the perspectives of various actors, the approach enables rapid cycle feedback by documenting and making visible what is going on in a complex system (Hargreaves 2014; Patton 2010; Patton, McKegg, and Wehipeihana 2015). Like other scholars (Nabatchi and Amsler 2014), design-based researchers recognize the importance of sharing research results with people responsible for making changes in a system. Rather than seeing this practice as contaminating research conditions, we see such information playing an essential role in supporting learning in complex, and ever changing social systems.

Pragmatic Evaluation

Rigorous impact evaluations also can play a critical role in social policy and program innovation. The most rigorous type of evaluation is the randomized controlled trial (RCT), where an intervention is randomly offered to a subset of participants and its causal impact isolated from other factors. Increasingly, government agencies and funders are encouraging or even requiring RCTs for continued funding of a social program. While rigorous evaluations are extremely important for identifying the causal impact of a social innovation, they are not so good at ensuring that successful innovations are brought to scale or are able to be replicated in multiple settings with similar results. Put another way, RCTs can play a critical role in the identification and validation of new technological innovations but they are not designed to address the second innovation challenge -- integrating the innovation with the system for sustained change.

Researchers often refer to this as a tradeoff between internal validity and external validity or generalizability. For the identification of causal impact, studies necessarily place premium importance on internal validity (Margetts 2011; Blom-Hansen, Morton, and Serritzlew 2015). However, if the goal of the evaluation is to inform scalability and sustained change, then greater emphasis on generalizability may be warranted (Moulton, Collins, and Kondratjeva, *under review*). An approach that is often used in medical studies is to design a *pragmatic* rather than *explanatory* randomized trial (Schwartz and Lellouch 1967; Tunis, Stryer, and Clancy 2003; Glasgow 2013; Ford and Norrie 2016). While the purpose of an explanatory RCT is to test a clinical hypothesis, the purpose of a pragmatic RCT is to test the impact of a clinical intervention in practice (Ford and Norrie 2016).

Pragmatic evaluations offer significant promise for social policy innovation. As noted above, implementation science was developed to try and respond to the long-recognized challenge that a successful innovation may not transfer to another context and produce the same results (Durlak, Weissberg, and Pachan 2010; Weiss, Lillefjell, and Magnus 2016; Bloom 2003; Weiss, Bloom, and Brock 2014). Through a pragmatic evaluation, researchers work with host sites to adapt promising interventions to the setting in which they are being implemented, thereby fostering innovation that is specific to the capacity and needs of the local context. This adaptation results in less fidelity to a similar innovation design (e.g., a specific protocol, a particular operational process), but it increases the likelihood that the innovation will have positive results across different settings. Borrowing from the frameworks developed in the medical sciences, there are several principles that can guide the use of pragmatic evaluations in social policy settings (Moulton, Collins, and Kondratjeva, n.d.; Loudon et al. 2013).

First, in a pragmatic evaluation, the role of the researcher is one of collaborator and facilitator rather than external objective observer. In an explanatory RCT, an innovation to be tested is often tightly administered by the research team, with an emphasis on fidelity to a tightly scripted protocol. By contrast, with a pragmatic evaluation, the host site takes the lead role in designing and implementing the innovation. Broad mechanisms that are at the core of the innovation are held constant across settings, yet specific details are left to the host site to decide. While the researcher offers parameters to guide implementation that are based on insights from prior research, emphasis is placed on adapting the innovation to the local context.

Second, the setting and clients to be evaluated in a pragmatic evaluation are those who would be targeted for the innovation absent the evaluation. This differs from an explanatory RCT where sites and clients are selected that have the most capacity to participate in the evaluation, but may not reflect the settings and target groups that are most likely to benefit (Olsen and Orr 2016; Olsen et al. 2013). For example, in a pragmatic evaluation, the process of recruiting participants should be embedded within the standard operating practices of an organization as much as possible. This differs from an explanatory RCT where consent is typically a separate process and administered by external evaluators. Additionally, while pragmatic evaluations still encourage randomization of access to innovations whenever possible, this process should create the least amount of disruption as possible. For example, rather than randomizing the intervention for those who have consented to participate in a study, the host site can randomize the offer of interventions to specific segments of its client population (also called 'an intent to treat' study design).

A third principle of pragmatic evaluations is to identify relevant outcomes for that particular setting to be collected and monitored as part of standard operating practices. Whereas

explanatory RCTs often collect additional information from study participants through surveys or research team administered follow-up, with a pragmatic RCT, the evaluation team minimizes its interaction with the end-user as much as possible. As such, the evaluation relies primarily on administrative data already being collected by the organization to reduce researcher interference with the target population. The end result is not only more generalizable results, but also better integration of the innovation being tested within the system, offering opportunities for ongoing feedback and improvement.

Finally, given the flexibility across host sites and less researcher control, pragmatic impact evaluations must be accompanied by process or developmental evaluations. These evaluation approaches document essential parts of the innovation: challenges with participant take-up, interactions with the innovation, the means by which it influences desired outcomes in the target group (Heinrich et al. 2014; Weiss, Bloom, and Brock 2014). Evaluators document the innovation processes at multiple levels in the system.

These pragmatic evaluation principals are not new, and in fact, are being used by many social policy researchers. For example, the BIAS project referred to earlier in this chapter was more inline with a pragmatic RCT than an explanatory RCT. The implementing organizations identified the behaviorally informed innovations to test and the outcomes that would define success, under guidance from MDRC (Richburg-Hayes et al. 2017). Each site implemented the innovation with the support from the research team, which played a more engaged role. To support the BIAS project and enable it to have longer lasting impact, they needed to act as a facilitator, educator and coach.

Conclusion

One of the cornerstones of social policy in federalist democratic nations like the United States and Canada is the potential for experimentation and innovation. Within the 50 U.S. states, there are more than 39,000 local municipal, township and city governments. Each has some degree of political authority to adopt new policies and adapt existing technologies to meet the needs of constituents. These public sector laboratories are supplemented by nearly 1.5 million registered tax-exempt organizations, the most robust of which actively incubate and disseminate new outcomes. The result is a diverse array of social policies and programs, creating untold opportunities for innovation, shared learning, and diffusion of good practices.

Despite this potential, social policy innovation is often constrained by the political and organizational context within which social programs operate. Prior research has demonstrated that wholesale administrative reforms to reduce these constraints (e.g., contracting out or performance management) are insufficient to generate innovations necessary to respond to pressing social problems (Light, 1994; Page 2005). Unfortunately, the most visible trends in scholarship focus squarely on either the technology underlying a social policy, including microlevel innovations to citizen/client interactions in studies that take a co-production or behavioral science approach, or attempts to predict which administrative components are critical to replicating interventions with fidelity. In this chapter, we have suggested that researchers can leverage these advances through more integrative approaches that address technical and administrative innovation simultaneously. Through design-based research and pragmatic

-

⁵ http://nccs.urban.org/data-statistics/quick-facts-about-nonprofits

evaluations, scholars can help enable social policy innovations that are more likely to be sustained over time.

References

- Aarons, Gregory, Michael Hurlburt, and Sarah McCue Horwitz (2011). "Advancing a Conceptual Model of Evidence-Based Implementation in Public Services." *Administration and Policy in Mental Health and Mental Services Research* 38: 4-23.
- Alford, John. 2002. "Why Do Public-Sector Clients Coproduce?: Toward a Contingency Theory." *Administration & Society* 34 (1):32–56.
- Amir, On, Dan Ariely, Alan Cooke, David Dunning, Nicholas Epley, Uri Gneezy, Botond Koszegi, et al. 2005. "Psychology, Behavioral Economics, and Public Policy." *Marketing Letters* 16 (3–4):443–54.
- Andrews, Margaret, and David Smallwood. 2012. "What's Behind the Rise in SNAP Participation?" *Amber Waves* 10 (1). Superintendent of Documents.
- Ansell, Christopher. 2011. "Pragmatist DemocracyEvolutionary Learning as Public Philosophy." *Pragmatist Democracy: Evolutionary Learning as Public Philosophy*. New York, NY: Oxford University Press, 1–296.
- Ansell, Christopher, and Jacob Torfing. 2014. "Collaboration and Design: New Tools for Public Innovation." In *Public Innovation Through Collaboration and Design*, edited by Christopher Ansell and Jacob Torfing, 1–18. New York, NY: Routledge.
- Argyris, Chris, and Donald A. Schön. 1996. *Organizational Learning II: Theory, Method and Practice*. Reading Massachusetts: Addison-Wesley Publishing Company.
- Bardach, Eugene. 1998. Getting Agencies to Work Together: The Practice and Theory of Managerial Craftmanship. Washington, D.C.: Brookings Institution Press.
- Barzelay, Michael. 2012. "The Study of Public Management: Reference Points for a Design Science Approach." In *Reforming the Public Sector: How to Achieve Better Transparency, Service, and Leadership*, edited by Giovanni Tria and Giovanni Valotti, 219–39. Washington, DC: Brookings Institution Press.
- Bason, Christian. 2010. *Leading Public Sector Innovation: Co-Creating for a Better Society*. Bristol, United Kingdom': Policy Press.
- ——. 2017. *Leading Public Design: Discovering Human-Centered Goverance*. Bristol, United Kingdom: Policy Press.
- Bednar, Jenna. 2011. "The Political Science of Federalism." *Annual Review of Law and Social Science* 7 (1):269–88.
- Bekkers, V.J.J.M., Tummers, L.G., Voorberg, W.H. (2013). From public innovation to social innovation in the public sector: A literature review of relevant drivers and barriers. *Rotterdam: Erasmus University Rotterdam*
- Berry, Frances Stokes, and William D. Berry. 1999. "Innovation and Diffusion Models in Policy Research." In *Theories of the Policy Process*, edited by Paul A. Sabatier and Christopher M. Weible, 223–60. Westview Press.
- Bertrand, Marianne, Sendhil Mullainathan, and Eldar Shafir. 2006. "Behavioral Economics and Marketing in Aid of Decision Making among the Poor." *Journal of Public Policy & Marketing* 25 (1). American Marketing Association:8–23.

- Bessant, John. 2005. "Enabling Continuous and Discontinuous Innovation: Learning from the Private Sector." *Public Money and Management* 25 (1). Taylor & Francis:35–42.
- Bevan, Gwyn, and Christopher Hood. 2006. "What's Measured Is What Matters: Targets and Gaming in the English Public Health System." *Public Administration* 84 (3):517–38.
- Bifulco, Robert, and Helen F. Ladd. 2006. "The Impacts of Charter Schools on Student Achievement: Evidence from North Carolina." *Education Finance and Policy* 1 (1). MIT Press:50–90.
- Birkinshaw, Julian, Gary Hamel, and Michael J. Mol. 2008. "Management Innovation." *Academy of Management Review* 33 (4). Academy of Management:825–45.
- Blom-Hansen, Jens, Rebecca Morton, and Søren Serritzlew. 2015. "Experiments in Public Management Research." *International Public Management Journal* 18 (2). Taylor & Francis:151–70.
- Bloom, Howard S. 2003. "Using 'Short' Interrupted Time-Series Analysis to Measure the Impacts of Whole-School Reforms: With Applications to a Study of Accelerated Schools." *Evaluation Review* 27 (1). Sage Publications:3–49.
- Borins, Sandford. 2001. *The Challenge of Innovating in Government*. PricewaterhouseCoopers Endowment for the Business of Government Arlington, VA.
- Bovaird, Tony. 2007. "Beyond Engagement and Participation: User and Community Coproduction of Public Services." *Public Administration Review*, no. September-October:846–860.
- Boyne, George A., and Richard M. Walker. 2002. "Total Quality Management And Performance: An Evaluation of the Evidence and Lessons for Research on Public Organizations." *Public Performance & Management Review* 26 (2):111–31.
- Brien, Michael J., and Christopher A. Swann. 1997. *Prenatal WIC Participation and Infant Health: Selection and Maternal Fixed Effects*. Thomas Jefferson Center for Political Economy, University of Virginia.
- Brown, Tim. 2009. Change by Design. New York, NY: Harper Business.
- Bryson, John M., Barbara C. Crosby, and Laura Bloomberg. 2015. *Public Value and Public Administration*. Washington, DC: Washington, DC: Georgetown University Press.
- Bryson, John M., Kathryn S. Quick, Carissa Schiveley Slotterback, and Barbara C. Crosby. 2013. "Designing Public Participation Processes." *Public Administration Review* 73 (1):23–34.
- Bryson, John M, Barbara C Crosby, and Melissa Middleton Stone. 2006. "The Design and Implementation of Cross-Sector Collaborations: Propositions from the Literature." *Public Administration Review*.
- Burns, Tom E., and George Macpherson Stalker. 1961. *The Management of Innovation*. New York: Oxfor University Press.
- Cairney, Paul. 2012. "Complexity Theory in Political Science and Public Policy." *Political Studies Review* 10 (3). SAGE Publications Sage UK: London, England:346–58.

- Carlile, Paul R. 2002. "View of Knowledge and Boundaries: Boundary Objects in New Product Development." *Organization Science* 13:442–55.
- Castleman, Benjamin L., and Lindsay C. Page. 2016. "Freshman Year Financial Aid Nudges: An Experiment to Increase FAFSA Renewal and College Persistence." *Journal of Human Resources* 51 (2). University of Wisconsin Press:389–415.
- Cohen, Wesley M., and Daniel A. Levinthal. 1990. "Absorptive Capacity: A New Perspective on Learning and Innovation." *Administrative Science Quarterly* 35 (1). JSTOR:128–52.
- Colander, David, and Roland Kupers. 2014. *Complexity and the Art of Public Policy: Solving Society's Problems from the Bottom Up*. Princeton, New Jersey: Princeton University Press.
- Cross, Nigel. 1982. "Designerly Ways of Knowing Designerly Ways of Knowing." *Design Studies* 3 (82):221–27.
- Crossan, Mary M., and Marina Apaydin. 2010. "A Multi-dimensional Framework of Organizational Innovation: A Systematic Review of the Literature." *Journal of Management Studies* 47 (6). Wiley Online Library:1154–91.
- Currie, Janet. 2004. "The Take up of Social Benefits." National Bureau of Economic Research.
- Damanpour, Fariborz. 1987. "The Adoption of Technological, Administrative, and Ancillary Innovations: Impact of Organizational Factors." *Journal of Management* 13 (4). Sage Publications Sage CA: Thousand Oaks, CA:675–88.
- ——. 1991. "Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators." *Academy of Management Journal* 34 (3):555–90.
- Damanpour, Fariborz, and Marguerite Scheider. 2008. "Characteristics of Innovation and Innovation Adoption: Assessing the Role of Managers." *Journal of Public Administration Research* 19 (3):495–522.
- Damanpour, Fariborz, Richard M. Walker, and Claudia N. Avellaneda. 2009. "Combinative Effects of Innovation Types and Organizational Performance: A Longitudinal Study of Service Organizations." *Journal of Management Studies* 46 (4):650–75.
- Damschroder, Laura J., David C. Aron, Rosalind E. Keith, Susan R. Kirsh, Jeffery A. Alexander, and Julie C. Lowery. 2009. "Fostering Implementation of Health Services Research Findings into Practice: A Consolidated Framework for Advancing Implementation Science." *Implementation Science* 4 (January):50.
- Denhardt, Robert B., and Janet Vinzant Denhardt. 2000. "The New Public Service: Serving Rather than Steering." *Public Administration Review* 60 (6):549–59.
- Dunn, David, and Roger Martin. 2006. "Design Thinking and How It Will Change Management Education: An Interview and Discussion." *Academy of Management Learning & Education* 5 (4):512–23.
- Durlak, Joseph A., and Emily P. DuPre. 2008. "Implementation Matters: A Review of Research on the Influence of Implementation on Program Outcomes and the Factors Affecting Implementation." *American Journal of Community Psychology* 41 (3–4):327–50.
- Durlak, Joseph A., Roger P. Weissberg, and Molly Pachan. 2010. "A Meta-Analysis of after-School Programs That Seek to Promote Personal and Social Skills in Children and

- Adolescents." American Journal of Community Psychology 45 (3-4). Springer: 294–309.
- Emerson, Kirk, and Tina Nabatchi. 2015. *Collaborative Governance Regimes*. Washington D.C.: Georgetown University Press.
- Executive Office of the President National Science and Technology Council. 2015. "Social and Behavioral Sciences Team Annual Report." Washington, DC. http://grist.org/news/use-behavioral-science-to-help-fight-climate-change-says-obama-executive-order/%5Cnpapers3://publication/uuid/F797DE9E-D440-40B8-A276-0580AEAE7BD5.
- Fagerberg, Jan. 2009. "Innovation: A Guide to the Literature." In *The Oxford Handbook of Innovation*. Oxford University Press.
- Feldman, Martha S., and Anne M. Khademian. 2007. "The Role of the Public Manager in Inclusion: Creating Communities of Participation." *Governance* 20 (2):305–24.
- Fernandez, Sergio, and Lois R Wise. 2010. "An Exploration of Why Public Organizations 'Ingest' Innovations." *Public Administration* 88 (4). Wiley Online Library:979–98.
- Fishman, Barry, William R. Penuel, Anna-Ruth Allen, Britte Haugan Cheng,
- and Nora Sabelli. 2013. "Design-Based Implementation Research: An Emerging Model for Transforming the Relationship of Research and Practice." *National Society for the Study of Education* 115 (2): 136-156.
- Ford, Ian, and John Norrie. 2016. "Pragmatic Trials." *New England Journal of Medicine* 375 (5). Mass Medical Soc:454–63.
- Glasgow, Russell E. 2013. "What Does It Mean to Be Pragmatic? Pragmatic Methods, Measures, and Models to Facilitate Research Translation." *Health Education & Behavior* 40 (3). Sage Publications Sage CA: Los Angeles, CA:257–65.
- Gordon, Linda. 1994. *Pitied but Not Entitled: Single Mothers and the History of Welfare*. New York, NY: Freepress.
- Greenhalgh, Trisha, Glenn Robert, Fraser MacFarlane, Paul Bate, and Olivia Kyriakidou. 2004. "Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations." *The Milbank Quarterly* 82 (4):581–629.
- Handler, Joel F. 1986. *The Conditions of Discretion: Autonomy, Community, Bureaucracy*. New York, NY: Russel Sage Foundation.
- Hargreaves, Margaret B. 2014. "Rapid Evaluation Approaches for Complex Initiatives." Cambridge, MA.
- Hartley, Jean. 2005. "Innovation in Governance and Public Services: Past and Present." *Public Money and Management* 25 (1). Taylor & Francis:27–34.
- Hasenfeld, Yeheskel. 1983. *Human Service Organizations*. Englewood Cliffs, New Jersey: Prentice Hall.
- Heinrich, Carolyn J. 2015. "The Bite of Administrative Burden: A Theoretical and Empirical Investigation." *Journal of Public Administration Research and Theory* 26 (3). Oxford University Press US:403–20.
- Heinrich, Carolyn J, Patricia Burch, Annalee Good, Rudy Acosta, Huiping Cheng, Marcus

- Dillender, Christi Kirshbaum, Hiren Nisar, and Mary Stewart. 2014. "Improving the Implementation and Effectiveness of Out-of-School-time Tutoring." *Journal of Policy Analysis and Management* 33 (2). Wiley Online Library:471–94.
- Hill, Carolyn J. 2005. "Casework Job Design and Client Outcomes in Welfare-to-Work Offices." Journal of Public Administration Research and Theory 16 (2):263–88.
- Hoxby, Caroline M., and Sarah Turner. 2013. "Expanding College Opportunities for High-Achieving, Low Income Students." *Stanford Institute for Economic Policy Research Discussion Paper*, no. 12–014.
- Hoxby, Caroline M, and Christopher Avery. 2012. "The Missing 'One-Offs': The Hidden Supply of High-Achieving, Low Income Students." National Bureau of Economic Research.
- Innes, Judith E., and David E. Booher. 2010. *Planning with Complexity: An Introduction to Collaborative Rationality for Public Policy*. Routledge.
- John, Peter, Graham Smith, and Gerry Stoker. 2009. "Nudge Nudge, Think Think: Two Strategies for Changing Civic Behaviour." *Political Quarterly* 80 (3):361–70.
- Johnson, Eric J., and Daniel Goldstein. 2003. "Do Defaults Save Lives?" *Science (New York, N.Y.)* 302 (5649). American Association for the Advancement of Science:1338–39.
- Kahneman, Daniel. 2003. "Maps of Bounded Rationality." *The American Economic Review* 93 (5):1449–75.
- Katz, Michael B. 1989. The Undeserving Poor: From the War on Poverty to the Ware on Welfare. New York, NY: Pantheon Books.
- Kaufmann, Wesley, and Lars Tummers. 2017. "The Negative Effect of Red Tape on Procedural Satisfaction." *Public Management Review* 19 (9). Taylor & Francis:1311–27.
- Kettl, Donald F. 2000. "The Transformation of Governance: Globalization, Devolution, and the Role of Government." *Public Administration Review* 60 (6):488–97.
- Kravcenko, Dmitrijs, and Jacky Swan. 2017. "Talking through Objects: The Sociopolitical Dyanmics Embodied in Boundary Objects in Architectural Work." In *Managing Knowledge Integration across Boundaries*, edited by Fredrik Tell, Christian Cerggre, Stefano Brusoni, and Andrew Van de Ven, 171. Oxford, United Kingdom: Oxford University Press.
- Kuye, Ifedayo O, Richard G Frank, and J Michael McWilliams. 2013. "Cognition and Take-up of Subsidized Drug Benefits by Medicare Beneficiaries." *JAMA Internal Medicine* 173 (12). American Medical Association:1100–1107.
- Lam, Alice. 2009. "Organizational Innovation." In *The Oxford Handbook of Innovation*, edited by Jan Fagerberg and David Mowery.
- Lewin, Kurt. 1946. "Action Research and Minority Problems." *Journal of Social Issues* 2 (4):34–46.
- Light, Paul. 1994. Creating Government that Encourages Innovation. Jossey-Bass: San Francisco.
- Lind, E Allan, and Tom R Tyler. 1988. *The Social Psychology of Procedural Justice*. Springer Science & Business Media.

- Loudon, Kirsty, Merrick Zwarenstein, Frank Sullivan, Peter Donnan, and Shaun Treweek. 2013. "Making Clinical Trials More Relevant: Improving and Validating the PRECIS Tool for Matching Trial Design Decisions to Trial Purpose." *Trials* 14 (1). BioMed Central:115.
- Madrian, Brigitte C. 2014. "Applying Insights from Behavioral Economics to Policy Design." *Annual Review of Economics* 6 (1):663–88.
- Mani, Anandi, Sendhil Mullainathan, Eldar Shafir, and Jiaying Zhao. 2013. "Poverty Impedes Cognitive Function." *Science* 341 (6149). American Association for the Advancement of Science:976–80.
- Manoli, Dayanand S, and Nicholas Turner. 2014. "Nudges and Learning: Evidence from Informational Interventions for Low-Income Taxpayers." National Bureau of Economic Research.
- Margetts, Helen Z. 2011. "Experiments for Public Management Research." *Public Management Review* 13 (2). Taylor & Francis:189–208.
- Martin, Roger. 2009. *The Opposable Mind: Winning through Integrative Thinking*. Boston, Massachusetts: Harvard Business Press.
- Mettler, Suzanne. 2002. "Bringing the State Back in to Civic Engagement: Policy Feedback Effects of the G.I. Bill for World War II Veterans." *American Political Science Review* 96 (2):351–65.
- Meyers, Duncan C., Joseph A. Durlak, and Abraham Wandersman. 2012. "The Quality Implementation Framework: A Synthesis of Critical Steps in the Implementation Process." *American Journal of Community Psychology* 50 (3–4):462–80.
- Mintrom, Michael. 1997. "Policy Entrepreneurs and the Diffusion of Innovation." *American Journal of Political Science* 41 (3):738.
- Morcol, Göktuğ. 2005. "A New Systems Thinking: Implications of the Sciences of Complexity for Public Policy and Administration." *Public Administration Quarterly*. JSTOR, 297–320.
- Moulton, Stephanie, J Michael Collins, and Olga Kondratjeva. n.d. "Pragmatic Field Experiments in Policy Research: The Case of a Pilot Program for Municipal Water Customers."
- Moulton, Stephanie, and Jodi R. Sandfort. 2017. "The Strategic Action Field Framework For Policy Implementation Research." *Policy Studies Journal* 45 (1):144–69.
- Moynihan, Donald P. 2006. "Managing for Results in State Government: Evaluating a Decade of Reform." *Public Administration Review* 66 (1). Wiley Online Library:77–89.
- Moynihan, Donald P., Pamela Herd, and Hope Harvey. 2014. "Administrative Burden: Learning, Psychological, and Compliance Costs in Citizen-State Interactions." *Journal of Public Administration Research and Theory* 25 (1):43–69.
- Mulgan, Geoff, and David Albury. 2003. "Innovation in the Public Sector."
- Mullainathan, Sendhil, and Eldar Shafir. 2013. "Decision Making and Policy in Contexts of Poverty." *Behavioral Foundations of Public Policy*, 281–300.
- Nabatchi, Tina, and Lisa Blomgren Amsler. 2014. "Direct Public Engagement in Local

- Government." American Review of Public Administration 44 (4):63–88.
- Nicholson-Crotty, Sean, and Sanya Carley. 2016. "Effectiveness, Implementation, and Policy Diffusion: Or 'Can We Make That Work for Us?" *State Politics and Policy Quarterly* 16 (1):78–97.
- Nilsen, Per, Christian Ståhl, Kerstin Roback, and Paul Cairney. 2013. "Never the Twain Shall Meet?--A Comparison of Implementation Science and Policy Implementation Research." *Implementation Science* 8 (63). Implementation Science.
- Obstfeld, David. 2005. "Social Networks, the Tertius Iungens Orientation, and Involvement in Innovation." *Administrative Science Quarterly* 50 (1). SAGE Publications Sage CA: Los Angeles, CA:100–130.
- Olsen, Robert B., Larry L. Orr, Stephen H. Bell, and Elizabeth A. Stuart. 2013. "External Validity in Policy Evaluations That Choose Sites Purposively." *Journal of Policy Analysis and Management* 32 (1). Wiley Online Library:107–21.
- Olsen, Robert B, and Larry L Orr. 2016. "On the 'where' of Social Experiments: Selecting More Representative Samples to Inform Policy." *New Directions for Evaluation* 2016 (152). Wiley Online Library:61–71.
- Osborne, David, and Ted Gaebler. 1992. Reinventing Government: Howthe Entrepreneurial Spirit Is Transforming the Public Sector. New York: Plume Books.
- Osborne, Stephen P. 2013. *Voluntary Organizations and Innovation in Public Services*. Routledge.
- Osborne, Stephen P., and Kirsty Strokosch. 2013. "It Takes Two to Tango? Understanding the Co-Production of Public Services by Integrating the Services Management and Public Administration Perspectives." *British Journal of Management* 24 (S1). Wiley Online Library.
- Page, Stephen. 2005. "What's New about the New Public Management? Administrative Change in Human Services." *Public Administration Review* 65(6): 713-727.
- Parks, Roger B., Paula C. Baker, Larry Kiser, Ronald Oakerson, Elinor Ostrom, Vincent Ostrom, Stephen L Percy, Martha B. Vandivort, Gordon P. Whitaker, and Rick Wilson. 1981. "Consumers as Co-Producers of Public Services: Some Economic and Institutional Considerations." *Policy Studies Journal* 9 (7). Wiley Online Library:1001–11.
- Patterson, James T. 1986. *America's Sturggle Against Poverty*, 1900-1985. Cambridge, Massachusetts: Harvard University Press.
- Patton, Michael Quinn. 2010. Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use. New York: The Guilford Press.
- Patton, Michael Quinn, Kate McKegg, and Nan Wehipeihana. 2015. *Developmental Evaluation Exemplars: Principles in Practice*. Edited by Michael Quinn Patton, Kate McKegg, and Nan Wehipeihana. New York: Guilford Press.
- Pavitt, Keith. 2009. "Innovation Processes." In The Oxford Handbook of Innovation, 1–33.
- Policy Horizons Canada. 2017. "Behavioural Insight Brief: Applying Behavioural Insights to Government Organizations." 2017. http://www.horizons.gc.ca/en/content/applying-

- behavioural-insights-government-organizations.
- Pollitt, Christopher, and Peter Hupe. 2011. "Talking About Government." *Public Management Review* 13 (5):641–58.
- Quick, Kathryn S., and Martha S. Feldman. 2014. "Boundaries as Junctures: Collaborative Boundary Work for Building Efficient Resilience." *Journal of Public Administration Research and Theory* 24 (3):673–95.
- Radin, Beryl A. 2006. "Challenging the Performance Movement: Accountability, Complexity, and Democratic Values." Washington, DC: Georgetown University Press.
- Reagans, Ray, and Bill McEvily. 2003. "Network Structure and Knowledge Transfer: The Effects of Cohesion and Range." *Administrative Science Quarterly* 48 (2). Sage Publications, Inc:240–67.
- Richburg-Hayes, Lashawn, Caitlin Anzelone, Nadine Dechausay, and Patrick Landers. 2017. "Nudging Change In Human Services: Final Report on the Behavioral Interventions to Advance Self-Sufficiency (BIAS) Project." http://www.acf.hhs.gov/programs/opre.
- Rogers, Everett M. 1995. "Lessons for Guidelines from the Diffusion of Innovations." *Joint Commission Journal on Quality and Patient Safety* 21 (7). Elsevier:324–28.
- Roll, Stephen, Stephanie Moulton, and Jodi Sandfort. 2017. "A Comparative Analysis of Two Streams of Implementation Research." *Journal of Public and Nonprofit Affairs* 3 (1):3–22.
- Romme, A. Georges L. 2003. "Making a Difference: Organization as Design." *Organization Science* 14 (5):558–73.
- Saetren, Harald. 2005. "Facts and Myths about Research on Public Policy Implementation: Out-of-Fashion, Allegedly Dead, But Still Very Much Alive and Relevant." *Policy Studies Journal* 33 (4):559–82.
- Salamon, Lester. 2002. *The Tools of Government: A Guide to the New Governance*. Edited by Lester Salamon. Oxford, United Kingdom: Oxford University Press.
- Sandfort, Jodi R. 2003. "Exploring the Structuration of Technology within Human Service Organizations." *Administration & Society* 34 (6). Humphrey Instit, U Minnesota:605–31.
- ———. 2010. "Human Service Organizational Technology." In *Human Services as Complex Organizations*, edited by Yeheskel Hasenfeld, 2nd ed., 2:269–90. Thousand Oaks: Sage Publications.
- ———. 2018. "Theoretical Foundations and Design Principles to Improve Policy and Program Implementation." In *Handbook of American Public Administration*, edited by Edmund Stazky and H. George Frederickson. Edward Elgar Publishing.
- Sandfort, Jodi R., and Kathryn S. Quick. 2017. "Deliberative Technology: A Holistic Lens for Interpreting Resources and Dynamics in Deliberation." *Journal of Public Deliberation* 13 (1).
- Schön, Donald A. 1987. The Reflective Practitioner. New York: Jossey-Bass.
- Schwartz, Daniel, and Joseph Lellouch. 1967. "Explanatory and Pragmatic Attitudes in Therapeutical Trials." *Journal of Clinical Epidemiology* 20 (8). Elsevier:637–48.

- Shipan, Charles R., and Craig Volden. 2008. "The Mechanisms of Policy Diffusion." *American Journal of Political Science* 52 (4):840–57.
- Soss, Joe, Richard C. Fording, and Sanford F Schram. 2011. *Disciplining the Poor: Neoliberal Paternalism and the Persistent Power of Race*. Chicago, Illinois: University of Chicago Press.
- Soss, Joe, and Donald P. Moynihan. 2014. "Policy Feedback and the Politics of Administration." *Public Administration Review* 74 (3):320–32.
- Star, Susan Leigh, and James R. Griesemer. 1989. "Institutional Ecology, Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39." *Social Studies of Science* 19 (3). Sage Publications London:387–420.
- Tabak, Rachel G., Elaine C. Khoong, David A. Chambers, and Ross C. Brownson. 2012. "Bridging Research and Practice: Models for Dissemination and Implementation Research." *American Journal of Preventive Medicine* 43 (3). Elsevier Inc.:337–50.
- Tell, Fredrick, Christian Berggren, Brusconi, and Van de Ven, editors. 2017. Managing Knowledge Integration Across Boundaries. Oxford, U.K: Oxford University Press:
- Thaler, Richard H., and Cass R. Sunstein. 2008. *Nudges: Improving Decisions about Health, Wealth and Happiness*. New Haven, CT: Yale's University Press.
- Tocqueville, Alexis de. 1835. "Democracy in America." In *Democracy in America*. London: Saunder and Otley.
- Torfing, Jacob. 2016. *Collaborative Innovation in the Public Sector*. Washington, D.C.: Georgetown University Press.
- Tunis, Sean R., Daniel B. Stryer, and Carolyn M. Clancy. 2003. "Practical Clinical Trials: Increasing the Value of Clinical Research for Decision Making in Clinical and Health Policy." *Jama* 290 (12). American Medical Association:1624–32.
- Uzzi, Brian. 1997. "Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness." *Administrative Science Quarterly*. JSTOR, 35–67.
- Ven, Andrew H. Van de, Douglas E. Polley, Raghu Garud, and Sankaran Venkataraman. 2008. *The Innovation Journey*. Oxford, England: Oxford University Press.
- Ven, Andrew H. Van de, and Marshall Scott Poole. 1995. "Explaining Development and Change." *The Acadeny of Management Review* 20 (3):510–40.
- Ven, Andrewe Van de. 2007. Engaged Scholarship: A Guide for Organizational and Social Research. Oxford, England: Oxford University Press.
- Walker, Richard M. 2008. "An Empirical Evaluation of Innovation Types and Organizational and Environmental Characteristics: Towards a Configuration Framework." *Journal of Public Administration Research and Theory* 18 (4). Oxford University Press:591–615.
- Walker, Richard M., Fariborz Damanpour, and Carlos A. Devece. 2011. "Management Innovation and Organizational Performance: The Mediating Effect of Performance Management." *Journal of Public Administration Research and Theory* 21 (2):367–86.
- Weber, Edward P., and Anne M. Khademian. 2008. "Wicked Problems, Knowledge Challenges,

- and Collaborative Capacity Builders in Network Settings." *Public Administration Review* 68 (2):334–49.
- Weiss, Daniel, Monica Lillefjell, and Eva Magnus. 2016. "Facilitators for the Development and Implementation of Health Promoting Policy and Programs—A Scoping Review at the Local Community Level." *BMC Public Health* 16 (1). BioMed Central:140.
- Weiss, Michael J., Howard S. Bloom, and Thomas Brock. 2014. "A Conceptual Framework for Studying the Sources of Variation in Program Effects." *Journal of Policy Analysis and Management* 33 (3). Wiley Online Library:778–808.
- Wolfe, Richard A. 1994. "Organizational Innovation: Review, Critique and Suggested Research Directions." *Journal of Management Studies* 31 (3). Wiley Online Library:405–31.