

## **A Comparative Analysis of Policy and Program Implementation Literatures**

Stephanie Moulton, Ohio State University

Stephen Rolls, Ohio State University

Jodi Sandfort, University of Minnesota

December 2014

Under review at Public Administration Review

### ***Abstract:***

Increased pressure for evidence based practices has led to the growth of a new “field” of implementation science. Little is known about how this new stream of program implementation research compares with scholarship on policy implementation. This paper provides a comparative review of more than 1,500 journal articles published between 2003-2014 employing the terms policy implementation or program implementation. Using bibliometric analysis, content analysis of abstracts, and an in-depth review of a stratified random sample of articles, these two streams are analyzed in terms of their content, methods and focus. Following a multi-level implementation framework, this analysis considers the level at which research is taking place within each research stream. Through this systematic review, this paper provides new insights about the current state of research, opening up new avenues for scholars to substantively engage with and contribute to this important field of study for public affairs practice.

Within public affairs, the topic of policy implementation has a complex and controversial intellectual history (DeLeon & DeLeon, 2002; Klijn, 2005; O'Toole, 2004). On the one hand, the implementation of public policies can be viewed as a component of mainstream public management and administration research. The exploration of topics such as human resources, budgeting practices, performance measurement, or privatization strategies provide insights about how agencies contribute to (or deviate from) successful policy outcomes (Rainey, 2009; Fredrickson & Fredrickson, 2007; Moynihan, 2008). Yet, the advent of a new generation of public policy schools in the 1970s proclaimed implementation as a “new” topic of scholarly exploration (Allison, 1972; Easton, 1979; Pressman & Wildavsky, 1973). Rather than starting from the organization as the unit of analysis, this stream of scholarship started with a specific policy, isolating the implementation dimensions of policy outcomes in relation to other causal factors (Bardach, 1977; Mazmanian & Sabatier, 1989; Pressman & Wildavsky, 1973). During the 1980s-1990s, there was significant attention towards developing a generalizable model of policy implementation (DeLeon, 1999; Goggin et al., 1990; O'Toole, 1993). However, this scholarly attention has faded in the last ten to fifteen years within the core disciplines of public affairs and political science.

At the same time, growing demand by public officials for the adoption of evidence-based practices in areas such as education, health care, and social services has led to an increasing focus on the implementation dynamics of these research-based programmatic interventions in other fields. Saetren (2005) offered some evidence of this growing trend: during the period of 1985 to 2003, 72 percent of the nearly 2,500 scholarly publications mentioning “implementation” in the title of the manuscript were published in journals outside of public administration, public policy, or political science--a proportion much higher than in earlier time

periods. In fact, a new field of “implementation science” has blossomed in recent years, seeking to unpack the factors that lead to the successful implementation of evidence based programs and practices, particularly for health care and medical interventions (Durlak & DuPre, 2008; Fixsen et al., 2005; Greenhalgh et al., 2004; Meyers, Durlak, & Wandersman, 2012). While many of the programs being studied take place in public settings or are enabled by public policy, this program implementation literature is for the most part divorced from prior studies of policy implementation (Nilsen et al., 2013).

Perhaps more than any other field, public administration is well versed in resolving intellectual dichotomies that exist in research but not in practice, such as the boundaries between politics and administration, policy and management (Waldo 1948; O’Toole 1987; Svava 2001; Rosenbloom 2008). Public administration scholars regularly call for greater integration across intellectual silos (Perry 2012). This is because moving the field forward requires wrestling with politics as well as administrative and governance challenges, employing diverse quantitative and qualitative methodologies, and engaging the ultimate implications not just for management but for affected target populations (Lynn, Heinrich and Hill 2000; Moynihan and Soss 2014; Moulton 2010; Nesbit et al. 2011). This article explores the intellectual scope, focus and methods of policy and program implementation research. The purpose of this analysis is not to provide a comprehensive scan of all literature that may be relevant to policy implementation. Rather, it is to understand how recent literature in these two streams-- policy implementation and program implementation-- are similar and different, in terms of their content (research areas), focus (explicit mention of a formal policy and explicit mention of target populations), and methods (e.g., quantitative and qualitative).

One important turn in public affairs has been to embrace a multi-level framework of governance, where the outcomes of public policies and programs are best understood as resulting from multiple levels within a larger system (Lynn, Heinrich, & Hill, 2001; Berman, 1981; Hill & Hupe, 2008; Robichau & Lynn Jr., 2009; Kiser & Ostrom, 1982; Van Meter & Van Horn, 1975). So in addition to a general comparative analysis of the policy and program implementation literatures, it is useful to consider the extent to which current implementation research examines the multiple levels of an implementation system, including the program, frontline, organization, and policy field levels. While one may assume that policy implementation literature emphasizes the policy environment, and program implementation literature emphasizes programmatic elements, both theoretically acknowledge the need to move toward a multi-level frame of analysis (Hill and Hupe 2008; Nilsen et al. 2013). But is this taking place empirically? Thus, a second purpose of our analysis is thus to examine the extent to which current policy and program implementation literature is situated at multiple levels in the implementation system, and explore the relationships between the level of analysis and the content, focus and methods of the published research.

To achieve these two aims, this analysis includes a systematic review of research published in scholarly journals indexed by the Social Science Citation Index (SSI) from 2004 to 2013. From the larger pool of more than 15 million articles, 1,507 articles are extracted that include the terms “policy implementation” or “program implementation” in the title, abstract, or key words. A content analysis of the abstracts is conducted, contrasting the content areas, focus and research methodologies of literature employing the terms “policy implementation” or “program implementation,” respectively. The analysis is then limited to empirical articles and explore the level of analysis at which the research is taking place. To help validate the abstract

coding and to contextualize differences in findings within and across multiple levels, a more in-depth content analysis is conducted, including a stratified random subsample of 100 full articles.

The findings demonstrate interesting differences and similarities between policy and program implementation literatures. In terms of level of analysis, the analysis finds that over a third of the articles published in the last decade contribute findings relevant only at the program level. In contrast, only 15 percent of articles published in the last decade produce findings that cross multiple levels of the implementation system. Importantly, this paper extends prior reviews of implementation literature (Saetren 2005; 2014; O'Toole 1986; 2000) by offering a comparative analysis of recent program and policy implementation research, with an emphasis on the content areas, methods, focus and the level of analysis within the implementation system. This knowledge provides an opening for public administration scholars to engage the one issue most on the mind of public administration practitioners – how to better understand the processes and outcomes of translating policy or programmatic ideas into the daily operational practices of agencies and networks.

### **Two Different Streams: Policy Implementation and Program Implementation**

The literature on policy implementation dates back decades, at least as far back as Phillip Selznick's (Selznick, 1949) analysis of the Tennessee Valley Authority (TVA), in which he observed that the goals and outcomes of the federal economic development initiative were shaped substantially by the local implementation context, where cooptation by local leaders occurred. This and other notable case studies, most prominently Pressman and Wildavsky's 1973 book *Implementation*, called attention the complexity of joint action required for the successful execution of policy. The Great Society programs and subsequent growth of government interventions in the 1960s and 1970s spawned increasing attention to failed attempts to achieve

policy objectives, with an emphasis on the “implementation gap” between policy intent and actual results. Policy analyses were launched in an effort to identify factors contributing to the effectiveness (or ineffectiveness) of government interventions and thus secure (or eliminate) continued funding, with increasing attention paid to policy implementation (Allison, 1972; Easton, 1979; Pressman & Wildavsky, 1973).

By the late 1980s, a plethora of variables were identified that might affect desired results, beginning with factors related to policy design at the top of implementation systems (Bardach, 1977; Mazmanian & Sabatier, 1989; VanMeter & VanHorn, 1975; Sabatier & Mazmanian, 1980) and local implementation contexts at the bottom of implementation systems (Berman, 1978; Berman, 1981; Elmore, 1979-80; Lipsky, 1980). To help make sense of the various variables, policy implementation researchers developed frameworks and techniques to integrate factors affecting implementation, and specifying when certain types of factors would be more or less important (Goggin et al., 1990; Matland, 1995; Rothstein, 1998; Sabatier, 1988; Schneider & Ingram, 1990).

The focus on policy implementation within the core disciplines of public affairs began to dissipate in the 1990s, leading some to conclude that interest in the subject had declined (DeLeon, 1999), or that the focus was no longer useful without more precise research questions, constructs and methods to analyze complex systems (O’Toole, 2000). Some scholars pushed to focus on the use of specific coordinating mechanisms or policy tools (Schneider & Ingram, 1990; Salamon, 2002). Many scholars stressed that implementation systems are multi-level and multi-actor (e.g. Bryson, Crosby, & Stone 2006; Hall & O’Toole, 2000), with movement away from a focus on governmental agencies to consider multi-level governance and networks of actors both inside and outside of traditional governmental structures (Agranoff & McGuire, 2003; Feldman

& Khademian, 2002; Frederickson, 2005; Lynn et al., 2001; Milward & Provan, 2003). While this approach still emphasizes public policy as a necessary part of the governance system, there is increasing theoretical attention paid to the coordination of political authority in concert with other sources of authority, as well as the roles of institutions operating at various levels of the implementation system (Hill 2003; Moulton 2009; 2012; Sandfort 2010; Shea 2011). Less is known about the extent to which this multi-level approach is representative of policy implementation research empirically, and how this relates to the use of different empirical methods or foci for analysis.

A parallel trend to the decline of policy implementation research is the blossoming of program implementation studies in other research fields (Nilsen et al., 2013; Saetren, 2005, 2014). In areas such as medicine, community psychology, early childhood development, youth and family programs, and education, researchers have made considerable inroads in developing models and methods for studying program-level implementation. These investigations have modest scope as they are mainly interested in investigating the diffusion and replication of research-based interventions or programs. A new section of the American Psychological Association, the new journal *Implementation Science*, and a biennial conference sponsored by the Global Implementation Initiative bespeaks the growth of this research area. In the introductory volume to *Implementation Science* the editors' clarified their charge (Eccles & Mittman, 2006:1): "Implementation research is the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of...services and care."

Like the study of policy implementation in the 1970s and 1980s, many models and theories have recently been developed; a recent analysis identified sixty-one different models

being used to explore innovation dissemination and implementation (Tabak et al., 2012). Recent reviews are seeking to develop integrative frameworks or conceptual models (Durlak & DuPre, 2008; Fixsen et al., 2005; Greenhalgh et al., 2004; Meyers, Durlak, & Wandersman, 2012). Yet, in these efforts, it is recognized that scant attention is paid to the organizational or policy environment. In a recent review of implementation science research, only 13 percent of the models analyzed incorporate policy activities—even though they are widely understood as important (Tabak et al., 2012). In the widely used ‘Consolidated Framework for Implementation Research,’ organizational and policy factors are merely referred to as the “outer setting” (Damschroder et al., 2009). In spite of this fairly limited conception, a number of federal agencies in the departments of Education, Health and Human Services, and Veterans Affairs are investing in the implementation science approach. For policy makers interested in affecting outcomes, knowledge relevant to diffusing evidence-based interventions is essential.

In summary, issues of policy and program implementation are even more pressing today than they were in the 1970s. This analysis probes the paradox which Saetren (2005, 2014) articulates: public affairs scholars believe interest in policy implementation research has faded and yet there is a thriving research field that explores implementation questions relevant to and being funded by public managers and policy makers. Rather than a discrete body of literature within public affairs or political science, research on implementation today is more heterogeneous and spread across a variety of fields.

One way to make sense of this diverse literature is to conduct a comparative analysis of current research taking place under the umbrella of “policy implementation” or “program implementation,” identifying differences and similarities in research content, focus and methods. From the historical development of the two approaches, some differences are expected to



emerge. For example, policy implementation research likely focuses on federal or state programs implemented through governance systems using case study designs because of the complexity. Program implementation likely focuses on more ‘controllable’ phenomenon and use randomized experimental or quasi-experimental designs. Yet, both streams of literature increasingly emphasize the multi-level nature of the implementation system. In fact, one potential way to bridge the “policy” and “program” literatures is to consider the level(s) of analysis and probe the extent to which implementation research is focused on programs, frontlines, organizations, and/or policy systems.

### **Multi-Level Framework for Implementation Analysis**

One of the predominate themes in public affairs research today is the multi-actor, multi-level nature of the system in which policy and management takes place. For example, the study of governance, which has been defined as the study of how government, nonprofit, and private actors systematically shape “policy-relevant” outcomes (O’Toole, 2000), implies a more comprehensive approach which includes both non-governmental actors and multiple factors that interact in a decentralized and oftentimes networked structure. This work, such as the multi-level logic of governance framework put forth by Lynn, Heinrich, and Hill (2000), provides a way to think about how policy decisions made in federal government resonate down to lower levels of state agencies, service providers, and eventually target populations receiving services.

While governance includes much more than implementation, recent implementation scholars stress that the concepts of multi-level and multi-actor systems of action are foundational to understanding implementation processes and results (Hill & Hupe, 2008; Robichau & Lynn Jr., 2009; Sabatier & Jenkins-Smith, 1993; May & Winter, 2007; Shea 2011). Further, this sort of framework can help resolve the intellectual dualism between policy and management, processes

and outcomes. Scholars challenge that the future of our field rests on the ability of research to inform outcomes as they are experienced by target populations, acknowledging the feedback that occurs between policy and management to affect end outcomes (Moynihan and Soss 2014; Moulton 2011).

Using this framework, implementation findings from prior scholarship can be parsed at levels including the frontline, organization, and policy field levels of analysis. First, following the lead of Lipsky (1980), some studies document the significance of implementation at the *frontlines*, where the policy system interacts with the target population, such as children, tax payers, employers, or business owners. Many factors may be significant, such as a target group's composition and attitudes, staff background and experiences, operational tasks, or institutional values (Garrow & Grusky, 2012; Lipsky, 1980; Sandfort, 2003; Watkins-Hayes, 2009). Further, the interactions between the street-level bureaucrats and their target populations have the potential to lead to the evolution of the institutional context in which the policy or program is being implemented (Rice, 2013; Moynihan and Soss 2014). Exploring the relative impact of these various components on implementation results may be a key contribution of implementation research.

Second, frontline conditions are directly shaped by other factors at the *organizational* level. Service organizations' resources, structures, cultures, and competing programmatic responsibilities often determine the most prudent way the agency responds to implementation pressures (Lin, 2000; Spillane, 1998; Sandfort, Selden and Sowa, 2008). Authorizing agencies also shape implementation through the administrative rules adopted, funding instruments selected, strategic orientation, and performance definitions (Andrews et al., 2011; Berman, 1978;

Wilson, 1991). In a multi-level framework, such organizational factors are conceptualized as comprising the mezzo-level of implementation systems.

Finally, at the *policy field* level, other macro-level factors come into focus (Milward & Wamsley, 1984; Sandfort, 2010; Stone & Sandfort, 2009; Weible, Sabatier, & McQueen, 2009).<sup>1</sup> Policy fields are bounded networks among organizations carrying out a substantive policy and program area, such as homeland security, health care, or food assistance, which emerge in a particular place and time, and include organizations responsible for delivering services as well as intermediary organizations providing support to the network in a given field (Shea, 2011). These networks are in large part structured by the rules developed at the agency and legislative levels (Hall & O'Toole, 2004), and in practice they reflect the core elements of policy environments in a geographic area. Through these networks, interpretation of operative laws and strategies occurs and creates the substantive bounds within which organizational and frontline implementation decisions occur. It is often at this level where policy tools, such as contracts or grants, are adopted.

While the dynamics within each level of an implementation system are unique, the levels themselves are nested within each other. Like Russian dolls, the process of one level is influenced by the terminology, decisions, and structures adopted by the other (Fligstein & McAdams, 2012). Yet while it is easy to conceptualize this theoretically, the degree to which this orientation is reflected in empirical investigations is much less clear. By differentiating among these levels and probing in more detail the unique aspects of implementation operating at each, this analysis reflects what published studies reveal about multi-level implementation systems and highlights new areas for research in this vein.

## **Data and Methods**

For this analysis, a systematic review of literature is conducted (Boruch & Petrosino, 2004), including implementation research published in scholarly journals in the ten-year period spanning 2004 to 2013. The sample is drawn from the more than 8,500 journals listed in the Expanded Social Science Citation Index in the Web of Science. From a potential population of over 15 million articles published in the years relevant to our study, any articles are retained which included “policy implementation” or “program implementation” in the title, abstract, or key words using HistCite software. While there are other search terms associated with articles exploring implementation relevant topics (Saetren 2005), the purpose here is not to offer a general literature review but rather to offer a comparative analysis of two different approaches to implementation study, indicated by the modifying terms “policy” and “program.” The sample is further refined to exclude articles that employ the key terms but do not fit within either research stream (e.g., research on the implementation of a computer program), resulting in a final sample of 1,507 articles.<sup>2</sup>

To undertake this systematic review, three research methods are utilized: bibliometric analysis, content analysis of abstracts, and in-depth review of a stratified random sample of full articles. First, a bibliometric analysis is conducted of the journals in which the sample articles are published, identifying those that are published in the core journals within the two streams. It is expected that those articles that employ the term “policy implementation” will be represented more strongly in core public affairs journals, while those employing the term “program implementation” will be represented more strongly in core implementation science journals. Core public affairs journals are coded using the Web of Knowledge (ISI), including the over 190

journals indexed as “public administration” or “political science”. While the ISI does not have an implementation science category, ten core implementation journals are identified that are most frequently cited as significant outlets for implementation science in literature reviews (Durlak & DuPre, 2008; Fixsen et al., 2005; Meyers et al., 2012).<sup>3</sup>

Second, the two streams of implementation literature are compared through a content analysis of abstracts. Specifically, using Nvivo software, the content area, focus and research methods of the articles are coded. The level of analysis within which the research is situated is also coded. While coding was primary undertaken by one of the authors, the reliability of the coding scheme was tested with another independent coder for a random sample of 100 abstracts, with inter-rater reliability of 96 percent.

Content areas coded are not mutually exclusive and include health, education, environment, social welfare, crime, agriculture, city and regional planning, energy, transportation, science and technology, food, international development, monetary policy, international relations, business-specific implementation, general implementation, and miscellaneous.<sup>4</sup> While most of these areas are relatively clear, articles coded as “general implementation” are those that did not focus on a specific content area, but rather the topic of implementation itself. For example, a study focusing on how American federalism inhibits efficient policy implementation would fit into the “general implementation” code.

In addition to general content areas, abstracts are also coded for particular foci of the research that may vary across the two implementation streams. Specifically, it is interesting to consider the extent to which articles reference a specific policy or piece of legislation, and the extent to which articles reference specific target populations. For specific policy references, abstracts are coded based on whether they made *explicit* reference to a particular public policy as

being central to their analysis, and are also coded based on the scope of the policy in question (e.g. international, federal/national, or state/local).<sup>5</sup> For target populations, abstracts are coded based on whether they substantially focus on the following populations: children, the disabled, the elderly, the medically vulnerable, parents and families, racial and ethnic groups, and those in poverty. Not all articles in the sample are coded to a specific target population, and some are coded in more than one of these categories.<sup>6</sup>

Regarding research methods, articles are first coded as “conceptual” or “empirical.” Conceptual studies are defined as those without any data or specific case study, and empirical studies as those with a source of data or specific real-world instance of policy or program implementation. Empirical studies are further subdivided as “quantitative,” “qualitative,” or “mixed.” Qualitative studies reference the collection of generally unstructured data, including small-n surveys, interviews, and content analyses. Quantitative research strategies refer to large-n samples, positivist research designs, or statistical analyses. Mixed research strategies are those that employ both qualitative and quantitative methods in their approach. Abstracts that do not include any explicit reference to qualitative or quantitative methods are coded as “ambiguous.” Finally, articles are identified that do not employ any rigorous empirical or conceptual frame in their analysis and are generally only focused on describing a single case of implementation, coding them as “descriptive case studies.”

For the subsample of articles that are either empirical or include a clear conceptual orientation (n=1,128, which is the full sample excluding descriptive case studies), abstracts are further coded based on the level of analysis, here designated as “frontline,” “organizational,” and “policy field.”<sup>7</sup> Those studies contributing findings only at the program level are also identified. Program-specific findings include findings that are directly related to the evaluation of a specific

program or policy in terms of its outcomes or impacts, but not other levels of analysis. Frontline findings are those relevant to understanding frontline staff, clients, or their interactions, as well as any findings relevant to understanding how these dynamics impact policy. Organizational findings are those organizational characteristics that are significant in the implementation process, such as managerial characteristics, culture, capacity, resources, or facilities. Policy field findings are those that have large-scale implications for policy, networks, or the general structure of the policy system.

Finally, while the comparative analysis coding is applied to abstracts, an in-depth analysis of 100 articles is conducted, with articles selected through purposive random sampling. The primary purpose of the in-depth analysis is to deepen the understanding of differences and similarities by level of analysis; therefore, 20 articles are randomly selected within each of the four levels of analysis: program, frontlines, organization, policy field, and multi-level. Key insights at and across each level are identified inductively, as well as potential gaps not systematically explored.

## **Results**

The comparative review begins with a bibliometric analysis of the 1,507 articles citing “policy implementation” or “program implementation” in their title, keywords or abstracts. Overall, the analysis finds that the majority of recent policy or program implementation articles are being published in journals outside of the core public affairs journals (see Table 1). While this approach to classifying journals as core differs from Saetran (2005), the finding that the majority of published implementation research takes place outside of public affairs is similar.<sup>8</sup> This analysis further finds that 5.5 percent of total implementation articles are being published in one of the top ten “core” implementation science journals. Of the 1,507 total implementation

articles, 610 articles (60 percent) use the term “policy implementation,” while 905 articles (40 percent) employ the term “program implementation.” As expected, of those employing the term policy implementation, 18 percent are published in core public affairs journals, compared with only 1 percent of those employing the term program implementation. By contrast, 11 percent of program implementation articles are published in core implementation science journals compared with two percent of policy implementation articles.

[Insert Table 1 Here]

Next, the content areas of policy and program implementation research are compared. Table 2 illustrates the distribution of articles across 10 distinct content categories.<sup>9</sup> Health is the most common content area for both streams of research, with nearly half of the total sample (49 percent) coming from this arena. Education (18 percent), the environment (11 percent), and social welfare (eight percent) are the next most common focus areas, while a handful of papers concentrate on the other areas.<sup>10</sup> While Saetren’s (2005) assessment of 1933-2003 publications also finds health, education, environment, and social welfare as the most common topical areas, health comprised only 24 percent of the sample during that period, with a comparable number of articles focused on education. This suggests the growth of implementation studies is focused in health care, which is consistent with the historical development of the implementation science research stream.

However, as this review suggests, the real analytical story is how scholars’ attention to either “policy implementation” or “program implementation” varies across these content areas. As expected, articles examining policy implementation are substantially more concentrated in environmental policy (17 percent) than those in the “program implementation” stream (three percent). Health care research has the reverse pattern; 73 percent of program implementation



articles have a health focus compared to only 32 percent of policy implementation articles. Education and social welfare, which are the other two large content areas in implementation research, do not differ substantially in their prevalence in either policy or program articles.

[Insert Table 2 Here]

Aside from the general content area, the specific focus of implementation research is also compared. Historically, conceptualizations of policy implementation take enacted public policies as the starting point, and thus we expect policy implementation literature will more frequently reference explicit policies. Articles are coded based on whether or not they include mention of a specific public policy including legislation, executive orders or agency mandates. The results are also in Table 2. Of those mentioning specific policies, the level of government at which the policy operates is further identified (e.g. federal, state, local, or international levels). Of the articles in the sample, only a fifth of the abstracts (20 percent) mention a particular policy, and over half of these abstracts focus on policies enacted at the federal or national level. Twenty-nine percent of policy implementation-focused articles reference an explicit policy, compared to only seven percent of articles from the program implementation stream. In terms of the level of the policy in question, articles from the policy stream place more emphasis on the national or international levels, while articles from the program stream have relatively more focus on the state or local level.

Because implementation is often about making a change in behavior or condition, the extent to which articles reference particular target groups is also considered. While the possible target groups are diverse and numerous, in this analysis attention is limited to children, the disabled, the elderly, the medically vulnerable, parents and families, the poor, and racial or ethnic minority groups. The results are in Table 2. Only 34 percent of the full sample of articles

references one or more of these groups, with the most common being the medically vulnerable (15 percent), followed by children (13 percent) and parents/family (7 percent). Over half of articles from the program stream have a target population focus, while slightly over half of articles from the policy implementation stream focus on one or more of these populations. With regard to the specific population focus, articles from the program stream had more emphasis on children and the medically vulnerable, while articles from the policy stream had more focus on impoverished populations.

Next, the research methods employed within the two different research streams are compared. As the history of each field suggests, one might expect there to be divergent approaches. The results are at the bottom of Table 2. Across both streams, the most prevalent research methods are quantitative (34 percent). In fact, when coding the methods, experimental designs, population surveys, and secondary data analysis are the most common research methods used across the whole sample. As expected, preference for quantitative methods is even stronger within program implementation articles; nearly half (49 percent) of program implementation articles employ quantitative methods, compared with only a quarter (24 percent) of policy implementation articles. By contrast, policy implementation articles are three times as likely to include conceptual articles and more than twice as likely to employ descriptive case studies. The use of qualitative methods is roughly similar between the two streams, as is the low prevalence of mixed methods research approaches.

In addition to a comparative analysis of the policy and program implementation research streams, a second contribution of this study is to consider where current research is situated within a multi-level framework. Because level of analysis by the nature of study findings is identified, the sample is limited to empirical articles that employ conventional social science

methodology (n=1,128). The results can be seen in Table 3. Interestingly, the findings demonstrate that frontline and organizational level findings are represented nearly identically in both policy and program implementation research, with 19 percent of articles across both streams contributing findings to the frontline level and 16 percent contributing findings to the organizational level of analysis. However, there are stark differences in research at the policy field level, with half (50 percent) of policy implementation articles contributing findings at the policy level, compared with only 21 percent of program implementation articles. By contrast, more than half (52 percent) of program implementation articles contribute only program specific findings, contrasted with 20 percent of policy implementation articles. Given that scholars in both streams have emphasized that implementation occurs at multiple levels, one might expect to see this represented empirically with studies taking place at multiple levels of analysis. Yet only 13 percent of the empirical studies present findings relevant to more than one level of the implementation system, with little variation by policy or program implementation streams.

[Insert Table 3 Here]

To further unpack the nature of research taking place at different levels of analysis, Table 4 breaks down the content areas, focus, and research methods observed within each level.<sup>11</sup> In terms of how content areas differ by the level of analysis explored, results are restricted to only focus on the four most prominent fields - education, environment, health, and social welfare – because beyond this, the sub-samples become too small to reliably compare across multiple levels of analysis. Within each level of analysis, health studies are the most highly represented which is a function of the general predominance of healthcare related studies in the total sample. However, health studies are most concentrated in the program-specific level where they comprise nearly 80 percent of all of the findings and least concentrated in the policy fields level,

where they comprise less than 40 percent of the findings. Education, the second most prominent field, has comparatively high focus at the frontline and organizational levels, where it comprises around quarter of the findings. Environmental studies represent less than ten percent of the findings at the program, frontline, and organizational levels, but make up almost a fifth of the findings at the policy field level, showing that studies in this area generally focus on the broadest level of analysis. Social welfare studies, on the other hand, do not really have a strong emphasis on any one level of analysis, with their contribution ranging from five percent at the program level to 13 percent at the frontline level. In terms of studies that cross multiple levels of analysis, the education, environmental, and health fields all contribute to this category roughly in proportion to their prevalence in the sample as a whole. Social welfare studies seem to place more emphasis on multiple levels of analysis, as they comprise 13 percent of all multi-level studies but only eight percent of this sample.

[Insert Table 4 Here]

With regard to the focus of the studies in this sample, those with an explicit policy mention in their abstracts are unsurprisingly the least prevalent (15 percent) at the program level and the most prevalent (24 percent) at the policy field level (see Table 4). At the program level there is relatively more emphasis on state and local policy implementation than there is at any other level, while at the frontline, organizational, and policy field levels the majority of policy-focused studies concentrate on the federal or national level.

Over half of studies at the program-specific level have a target population focus, a proportion which declines as the level of analysis broadens, with fewer than 30 percent of studies at the policy field level having a target population focus. Additionally, 40 percent of studies which focus on multiple levels of analysis have a target population focus. With respect to the

specific populations, studies that focus on children comprise a larger proportion of the studies at the program, frontline, and organizational level (likely due to the prevalence of education-focused studies at these levels), while studies about impoverished populations comprise a relatively high percentage of studies at the policy field level. Studies focusing on specific races or ethnicities, by contrast, are disproportionately focused on the frontlines of implementation.

Research strategies also differ substantially depending on the level of analysis in question, as shown at the bottom of Table 4. At the program-specific level, over three-fourths of studies are quantitative, with an additional eight percent being mixed quantitative/qualitative. There is much more emphasis on qualitative studies at the frontline (44 percent), organizational (48 percent), and policy field (37 percent) levels, and purely qualitative studies comprise almost half of studies operating at multiple levels of analysis, compared to just a fifth for quantitative studies.

As a final stage in this study, an in-depth content analysis is conducted of a purposive random sample of 100 full journal articles, comprised of 20 articles each across the three levels of analysis: frontline, organizational, and policy field to deepen our analysis. Twenty studies that report findings relevant to multiple levels are also included, as well as 20 studies that contribute findings that are only program-specific. The purpose of this analysis is to both validate and contextualize the abstract coding, exploring differences in the research taking place at different levels of analysis.

As would be expected from the random sampling strategy, the general characteristics of the articles for the in-depth analysis are similar to the characteristics of the articles in the full sample. For example, the majority of articles focus in the health (48 percent) or education (14 percent) content areas, particularly regarding the implementation of particular program

interventions. The in-depth analysis also confirms that implementation studies focus on diverse topics; for example, Chinese monetary policy, charter schools, hospital quality improvement, sustainable energy development in Europe, and cardiac care are all substantive topics found in this sub-sample.

The focus of the articles is probed in more depth, identifying linkages to formal policies and the ultimate outcome being evaluated by the research study. In terms of formal policy, the in-depth analysis reveals that 28 percent of full articles make reference to specific laws or regulations, a slightly higher proportion than identified from the analysis of abstracts but still much lower than one might expect. Interestingly, articles making linkages to formal policies are most often studied at the policy field or organizational levels exploring relatively measurable interventions such as waste management, marine protection, or vaccination programs.

The majority of these articles do not link the implementation analysis to the ultimate target population or results of the policy or program. Rather, fully eighty-three percent of the articles focus on changes to organizations or systems involved in implementation, such as improving the quality or efficiency of work, attending to staff motivation, or managing the complexities of the agency's environment. Only thirty-six percent investigate target group experiences or ultimate results desired by the program or policy.

The inductive analysis reveals some analytical distinctions clearly present when looking at the articles grouped by level. First, studies are considered that only contribute *findings relevant to a particular program*. These *program-specific* studies examine a policy or intervention, examining implementation processes and results in relation to time, control groups, or comparison settings. One study, for example, looks at the adoption of a physical activity program, Animal Trackers, developed in primary schools to early childhood programs. Another

looks at the replication of the Toward No Drug Abuse curriculum in high schools and documents the continued efficacy of the intervention. In each, investigators test various training and coaching interventions used by teachers to see which approaches produce stronger fidelity to the initial models. As suggested by these examples, the key analytical question of program-specific implementation studies focuses on predicting successful replication in other settings and with other target groups. As such this type of implementation study is closely related to the larger field of program evaluation.

*Frontline* studies typically provide more contextual information than others. In reporting their findings, authors rely upon descriptive accounts and refer to “ground realities” and “ineffective policies” that are disconnected from these daily conditions. Throughout, there is more attention to both the particular occupational groups found at the frontlines – the doctors, teachers, social workers – and the characteristics of the target groups. As a result, the significance of relationships, perceptions, and negotiation between these actors, their competing worldviews or perspectives, is often stressed in research findings. Rather than being focused on predicting program replications, these studies are more concerned with uncovering the mechanisms whereby staff and target groups shape these processes. While a significant number of articles include recommendations for improvement, these often highlight tactics like enhancing the information or understanding user-groups and frontline staff have about the overall policy or program purpose.

Articles contributing findings at the *organizational* level are the most theoretically-oriented of this sub-sample. Drawing upon organizational studies, investigators pivot from existing theories about resource dependency, human resources, and strategic management to consider how these concepts are significant in implementation processes. A few articles –

particularly those in health care agencies – explore how specific management characteristics, structures, or processes influence desired behaviors in either frontline staff or patients. Yet more broadly throughout these articles, resources, culture, leadership, and coordinating structure were frequently noted for their roles in shaping both the process and results of implementation. Recommendations to bolster implementation stressed capacity building and sustainable resources at the organizational level.

While concerns for replication, a particular worldview, or conceptual reference point provide some unifying principles across other levels of analysis, the *policy field* studies were the most heterogeneous. Some focus at the national or transnational level, others at the state or local level. Some sought to understand network or governance arrangements, while other investigate ideology's role in shaping coalitions. Throughout most, the roles of both public and private institutions, as well as relationships and power, are recognized as significant in implementation. Yet, there is clearly no unifying conception of the significant questions or research approaches to be pursued in this type of analysis.

Finally, studies are considered that cross *multiple levels of analysis*. For example, a study of relationships between national HIV/AIDS organizations in China that affected frontline health educators' practice simultaneously explores policy-field networks' influence on frontline practice. Like the policy-field studies, the substantive significance of relationships and networks among diverse stakeholders is stressed as a theme in this subsample of articles. Like the organizational-level studies, the essential role of capacity-building and resources in guaranteeing success is emphasized. However, the analytical focus of these studies was inconsistent, making it difficult to draw any additional conclusions.



## Discussion

Although not often recognized in public administration, research is taking place in that focuses on policy and program implementation. In fact, the distribution of articles published in the decade since 2003 is split nearly evenly, with a slight leaning towards articles employing the term “policy implementation” (60 percent), although not often published in core PA journals. As expected, some notable topical differences between the two streams are observed. While studies of health care implementation are most common for both streams, they comprise nearly half of program implementation studies. By contrast, the policy implementation literature is more likely to engage regulatory topics, like environmental policy. On one hand, this makes sense.

Implementation scholars have long suggested that policy type in part determines which elements of the implementation system are more influential— top down factors related to formal policies or bottom up factors related to on the ground programmatic elements (Lowi 1972; Matland 1995). On the other hand, the in-depth review of full articles suggests that this differentiation in focus by topic is driven as much or more by intellectual silos that emphasize certain elements, rather than a theoretically grounded decision.

Methods also vary between the two streams, with quantitative and experimental methods more prevalent in the program streams, and case studies and conceptual literature more common in the policy stream. This may be changing, as there is an increasing push for experimental methods in public administration (Margetts 2011; Perry 2012). The level of analysis explored also appears to drive the methods employed. Program-level findings are more likely to result from quantitative analyses, organizational, frontline and policy findings are more likely to employ qualitative methods. For example, nearly half of studies contributing organizational level findings employ qualitative methods. This suggests that while quantitative analysis may be

more feasible (and desirable) for program evaluations, contributing to an understanding of organizational and front-line factors may require a qualitative or mixed methods approach. Thus while a push for quantitative and experimental research may be beneficial to produce relevant program findings, multiple methods—including qualitative analyses-- are likely needed to inform more generalizable findings across policy levels.

Perhaps one of the most vexing challenges is that across both streams, there appears to be minimal focus on specific target populations or the ultimate results of the policy or program being implemented. This is one of the primary intents of the multi-level framework; to link ultimate outcomes to the different levels within the governance system (Lynn, Heinrich and Hill 2001; Heinrich, Hill and Lynn 2004; Heinrich and Lynn 2001). In the coding of abstracts, it was found that only one-third mentioned specific target populations. This could be in part due to the limited list of target populations or the approach used to analyze abstracts. However, the content analysis of full articles revealed a similar trend. Yet policy and program implementation requires making organizations and systems change oriented towards a goal, be it patients vaccinated, acres of land reclaimed, or cities' economic development improved. The risk, of course, is that management or systems changes not aligned with the ultimate change desired in the target population may be misdirected (Moynihan & Soss 2014; Sandfort & Moulton, 2015). Further, despite the potential of multi-level frameworks in theory, a very small proportion of empirical studies are conducting implementation research that crosses multiple levels of analysis (13 percent).

It is worth briefly discussing some limitations of this study. The first limitation is the use of relatively narrow search criteria in building the database of policy and program implementation abstracts. Only articles using the exact terms “policy implementation” and

“program implementation” in their abstract, key words, or title were used. The findings reported here could reflect a bias stemming from the use of those terms, as some suggest that the term “implementation” has become less popular within public policy and management (Nilsen et al., 2013). While the use of these exact phrases may omit certain implementation-focused articles which do not include these phrases, using a less restrictive search criteria (such as searching for articles with “policy” or “program” *and* “implementation” anywhere in the abstract, key words, or title) yields a prohibitively large sample of articles given the level of depth required for this coding scheme. There are also likely numerous studies published in public affairs journals that contribute insights to implementation, but do not employ the term when describing their central focus in abstracts. The use of these terms may omit other articles with similar focus but not using similar terms (such as those focusing on “evaluation” or “governance”); however the purpose of this analysis is not to identify all relevant findings but rather to compare two streams of implementation research.

Another limitation may be that the abstracts for certain research fields are systematically different from other research fields. For example, the requirements for abstracts in policy studies or political science journals may be different from those in journals dedicated to specific policy fields (e.g. health policy or educational program evaluation journals). While this possible difference presents a potential source of bias, the fact that the in-depth article review largely confirmed the pattern observed in the content analysis of abstracts validates the treatment of the abstracts as a proxy for the content of the full articles. Further, in the exploration of how research designs varied by the content area of the research, undefined or ambiguous descriptions of research approaches do not appear to be the purview of one (or even a small handful) of content areas, indicating that this bias if present is likely not highly significant.

Finally, the fact that the scope of this analysis is limited to only those articles published in peer-reviewed journals means that research is necessarily excluded that is taking place elsewhere, primarily in scholarly books and dissertations. While these research venues are undoubtedly valuable sources of information on implementation studies, the specific focus of this work is on research subject to peer-review. Thus, while this research study cannot say anything about the implementation work being done in these venues, the focus of this article on rigorous, peer-reviewed work warrants the exclusion.

## **Conclusions**

The past decade certainly has witnessed a steady flow of research engaging the topics of policy and program implementation and exploring questions relevant to public managers and policy makers. Both streams make important contributions to an understanding of implementation dynamics in the pursuit of addressing messy public problems. However, each exhibits certain tendencies that, taken in isolation, may make the research less relevant in practice. With an emphasis on formal policies and reliance on case study methodologies, literature in the policy implementation stream may be criticized for being too broad without applicability for improving specific practices. On the other hand, literature in the program implementation stream often emphasizes programmatic elements without regard for the broader implementation system, with a preference for quantitative and experimental methods. The result is rather narrow contributions, focused so singularly on a particular program and specific elements subjected to randomization and not generalizable outside of a particular context.

Employing multi-level frameworks and mixed methods in empirical studies of both policy and program implementation offers a strategy to bridge the artificial intellectual divide to

create “usable knowledge” in public affairs (Perry 2012). However, this analysis finds that multiple levels of analysis and mixed methods are currently underutilized in both implementation research streams. While a small subset of studies report findings that cross multiple levels, the significant variation by content area and methodology leave much work ahead in building an intellectual coherence to this important area of research. To the extent that policy and program implementation research produces findings at various levels, ideally multiple levels within the same analysis, it could provide useful policy-specific relevance with implications for target populations, and still contribute to generalizable knowledge.

## References

- Agranoff, R. and M. McGuire. 2003. *Collaborative Public Management: New Strategies for Local Governments*. Washington, DC: Georgetown University Press.
- Allison, G. 1972. *Essence of decision. Explaining the Cuban Missile Crisis*. Boston, MA: Little Brown.
- Andrews, R., Boyne, G. A., Law, J., & Walker, R. M. (2011). Strategy implementation and public service performance. *Administration & Society*, 43(6), 643-671.
- Bardach, E. 1977. *The Implementation Game*. Cambridge: MIT Press.
- Berman, P. 1981. "Educational Change: An Implementation Paradigm." Pp. 253–86 in *Improving Schools: Using what we know*, edited by R Lehming and M Kane. Beverly Hills, CA: Sage.
- Berman, P. 1978. *The Study of Micro and Macro Implementation of Social Policy*. Rand.
- Blair, R. 2002. "Policy Tools Theory and Implementation Networks: Understanding State Enterprise Zone Partnerships." *Journal of Public Administration Research and Theory* 12(2):161–90.
- Boruch, R. and A. Petrosino. 2004. "Meta-Analysis, Systematic Reviews, and Research Synthesis." Pp. 176–204 in *Handbook of Practical Program evaluation*, edited by Joseph S. Wholey, Harry Hatry, and Kathryn Newcomer. San Francisco, California: Jossey-Bass.
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The design and implementation of Cross - Sector collaborations: Propositions from the literature. *Public administration review*, 66(s1), 44-55.
- Damschroder, L. et al. 2009. "Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science." *Implementation science* 4:50.
- DeLeon, P. 1999. "The missing link revisited: contemporary implementation research." *Policy Studies Review* 16(3/4):311–38.
- Durlak, J. and E. 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.
- Easton, D. 1979. *A systems analysis of political life*. Chicago: University of Chicago Press.
- Elmore, R. 1979-80. "Backward Mapping : Implementation Research and Policy Decisions." *Political Science Quarterly* 94(4):601–16.

- Feldman, M. S., & Khademian, A. M. (2002). To manage is to govern. *Public Administration Review*, 62(5), 541-554.
- Fixsen, D. et al. 2005. *Implementation research: A synthesis of the literature*. National Implementation Research Center: Tampa, FL.
- Fligstein, N. and D. McAdam. 2012. *A theory of Fields*. Oxford, England: Oxford University Press.
- Frederickson, G. 2005. "Whatever Happened to Public Administration? Governance, Governance Everywhere." Pp. 282–304 in *The Oxford Handbook of Public Management*. Oxford, England.
- Garrow, E. and O. Grusky (2012). "Institutional Logic and Street-Level Discretion: The Case of HIV Test Counseling." *Journal of Public Administration Research and Theory*. 23(1): 103-131.
- Goggin, M. L. (1986). "The 'Too Few Cases/Too Many Variables' Problem in Implementation Research." *Political Research Quarterly* 39(2):328–47.
- Goggin, M. L., A. O. M. Bowman, J. P. Lester, and L. J. O'Toole. (1990). "Studying the Dynamics of Public Policy Implementation: A Third-Generation Approach." Pp. 181–97 in *Implementation and the Policy Process: Opening up the Black Box*, edited by Dennis J. Palumbo and Donald J. Calista. New York: Greenwood Press.
- Greenhalgh, T., et al. (2004). "Diffusion of innovations in service organizations: systematic review and recommendations." *The Milbank quarterly* 82(4):581–629..
- Hall, T. E., and Laurence O'Toole. (2000). "Structures for Policy Implementation: An Analysis of National Legislation, 1965-1966 and 1993-1994." *Administration & Society* 31(6):667–86..
- Hall, T. E., & O'Toole, L. J. (2004). Shaping formal networks through the regulatory process. *Administration & Society*, 36(2), 186-207.
- Heinrich, C. J., & L. Lynn. (2001). Means and ends: A comparative study of empirical methods for investigating governance and performance. *Journal of Public Administration Research and Theory*, 11(1), 109-138.
- Heinrich, C. J., C. Hill, & L. Lynn. (2004). Governance as an organizing theme for empirical research. *Georgetown University Press, Washington, DC*.
- Herd, P., T. DeLeire, H. Harvey & D. Moynihan. (2013). "Administrative Burden Matters to Program Take-Up: A Case Study of Medicaid Application and Enrollment Procedures." *Public Administration Review* 73(S1): 68-81.

- Hill, H. C. (2003). Understanding Implementation: Street - Level Bureaucrats' Resources for Reform. *Journal of Public Administration Research and Theory*,13(3), 265-282.
- Hill, Michael, and Peter Hupe. (2008). *Implementing Public Policy: An Introduction to the Study of Operational Governance*. 2nd ed. Sage Publications.
- Ingram, Helen. (1990). "Implementation: A Review and Suggested Framework." Pp. 462–80 in *Public Administration: The State of the Discipline*.
- Jr, L. J. O'Toole. (1986). "Policy Recommendations for Multi-Actor Implementation: An Assessment of the Field." *Journal of Public Policy* 6(2932):181–210.
- Lin, Ann Chih. (2000). *Reform in the Making: The Implementation of Social Policy in Prison*. Princeton, New Jersey: Princeton University Press.
- Lowi, T. J. (1972). Four systems of policy, politics, and choice. *Public administration review*, 298-310.
- Lipsky, Michael. (1980). *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services*. New York, NY: Russel Sage Foundation.
- Lynn, L. (1996). "Art, Science, or Profession?" in *Public Management as Art, Science and Profession*. Chatham, New Jersey: Chatham House.
- Lynn, L. E., Heinrich, C. J., & Hill, C. J. (2000). Studying governance and public management: Challenges and prospects. *Journal of Public Administration Research and Theory*, 10(2), 233-262.
- Lynn, L., C. Heinrich, and C. Hill. (2001). *Improving Governance: A new logic for empirical research*. Washington, D.C.: Georgetown University Press.
- Margetts, H. Z. (2011). Experiments for public management research. *Public Management Review*, 13(2), 189-208.
- Matland, R. (1995). "Synthesizing the Implementation Literature : The Ambiguity-Conflict Model of Policy Implementation." *Journal of Public Administration Research & Theory* 5(2):145–74.
- May, P. J., and S. C. Winter. (2007). "Politicians, Managers, and Street-Level Bureaucrats: Influences on Policy Implementation." *Journal of Public Administration Research and Theory* 19(3):453–76.
- Mazmanian, D., and P. Sabatier. (1989). *Implementation and Public Policy*. Lanham: University Press of America.



- Meyers, D., J. Durlak, and A. 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.
- Milward, H. B. and G. Wamsley. 1(984). "Policy Subsystems, Networks, and the Tools of Public Management." P. 105 in *Public Policy Formation*, edited by Th. A J Koonen Kenneth Hanf. Boulder: Westview Press.
- Moynihan, D., P. Herd and E. Rigby. (2013). "Policymaking by Other Means: Do Governments Use Administrative Barriers to Limit Access to Welfare Policies?" *Administration & Society*.
- Moynihan, D., P. Herd, and H. Harvey. (2014). "Administrative Burden: Learning, Psychological and Compliance Costs in Citizen-State Interactions." Forthcoming at *Journal of Public Administration Research and Theory*.
- Moynihan, D. and J. Soss. 2014. "Policy Feedback and the Politics of Public Administration." *Public Administration Review* 74(3): 320-332.
- Moulton, S. (2009). Putting together the publicness puzzle: A framework for realized publicness. *Public Administration Review*, 69(5), 889-900.
- Moulton, S. (2010). Integrating the Public in Public Administration: Envisioning the Scholarly Field in 2020. *Public Administration Review* 70.s1: s317-s318.
- Moulton, S. (2012). The Authority to Do Good: Publicly Responsible Behavior among Private Mortgage Lenders. *Public Administration Review*, 72(3), 430-439.
- Nesbit, R., Moulton, S., Robinson, S., Smith, C., DeHart-Davis, L., Feeney, M. K., Gazely, B., & Hou, Y. (2011). Wrestling with intellectual diversity in public administration: Avoiding disconnectedness and fragmentation while seeking rigor, depth, and relevance. *Journal of Public Administration Research and Theory*, 21(suppl 1), i13-i28.
- Nilsen, P., C. Ståhl, K. Roback, and P. Cairney. (2013). "Never the twain shall meet?--a comparison of implementation science and policy implementation research." *Implementation science* 8(63).
- O'Toole, L. J. (1986). Policy recommendations for multi-actor implementation: An assessment of the field. *Journal of public policy*, 6(02), 181-210.
- O'Toole Jr, L. J. (1987). Doctrines and developments: Separation of powers, the politics-administration dichotomy, and the rise of the administrative state. *Public Administration Review*, 17-25.
- O'Toole, L. J. 1993. "Interorganizational Policy Studies: Lessons Drawn from Implementation Research." *Journal of Public Administration and Research Theory* 3(22):232–51.

- O'Toole, L. J. (2000). "Research on Policy Implementation : Assessment and Prospects." *Journal of Public Administration Research & Theory* 10:263–88.
- Perry, J. L. (2012). How Can We Improve Our Science to Generate More Usable Knowledge for Public Professionals? *Public Administration Review* 72(4), 479-482.
- Pressman, J., and A. Wildavsky. (1973). *Implementation: How Great Expectations in Washington are Dashed in Oakland or Why it's Amazing that Federal Programs Work at All*. Berkeley: University of California Press.
- Rainey, H. (2009). *Understanding and managing public organizations*. Wiley: Jossey-Bass.
- Rice, D. (2013). Street-Level Bureaucrats and the Welfare State Toward a Micro-Institutionalist Theory of Policy Implementation. *Administration & Society*, 45(9), 1038-1062.
- Robichau, R.W. and L. Lynn. (2009). "The Implementation of Public Policy: Still the Missing Link." *Policy Studies Journal* 37(1):21–36.
- Rosenbloom, D. (2008). The politics–administration dichotomy in US historical context. *Public administration review*, 68(1), 57-60.
- Romzek, B. and J. Johnston. (2002). "Effective Contract Implementation and Management: A Preliminary Model." *Journal of Public Administration Research and Theory* 12(3):423–53.
- Rothstein, B. (1998). *Just institutions matter: the moral and political logic of the universal welfare state*.
- Sabatier, P. (1988). "An advocacy coalition framework of policy change and the role of policy-oriented learning therein." *Policy Sciences* 21(2-3):129–68.
- Sabatier, P. and H. Jenkins-Smith. (1993). *Policy Change and Learning: An Advocacy Coalition Approach*. edited by Paul A Sabatier and Hank C Jenkins-Smith. Boulder: Westview Press.
- Sabatier, P. and D. Mazmanian. (1980). "The Implementation of Public Policy: A Framework of Analysis." *Policy Studies Journal* 8(4):538–60.
- Saetren, H. (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.
- Saetren, H. (2014). "Implementing the Third Generation Research Paradigm in Policy Implementation Research: An Empirical Assessment," *Public Policy & Administration*. 29(2): 84-105.
- Salamon, L., ed. (2002). *The Tools of Government: A Guide to the New Governance*. Oxford, United Kingdom: Oxford University Press.

- Sandfort, J. and S. Moulton (2015). *Effective Implementation Practice: Integrating Public Policy and Management*. San Francisco: Jossey Bass.
- Sandfort, J. (2003). "Exploring the Structuration of Technology within Human Service Organizations." *Administration & Society* 34(6):605–31.
- Sandfort, J. (2010). "Nonprofits within Policy Fields." *Journal of Policy Analysis & Management* 29(3):637–44.
- Sandfort, J., S. Selden, and J. Sowa. (2008). "Do the Tools Used by Government Influence Organizational Performance?: An Examination of Early Childhood Education Policy Implementation." *American Review of Public Administration* 38(4):412–38.
- Svara, J. H. (2001). The myth of the dichotomy: Complementarity of politics and administration in the past and future of public administration. *Public administration review*, 61(2), 176-183.
- Schneider, A. and H. Ingram. (1990). "Behavioral Assumptions of Policy Tools." *The Journal of Politics* 52(2):510–29.
- Selznick, P. (1949). *TVA and the grass roots: A study of politics and organization*. Berkeley, California: University of California Press.
- Shea, J. (2011). Taking Nonprofit Intermediaries Seriously: A Middle - Range Theory for Implementation Research. *Public Administration Review*, 71(1), 57-66.
- Spillane, J. P., B. J. Reiser, and T. Reimer. (2002). "Policy Implementation and Cognition: Reframing and Refocusing Implementation Research." *Review of Educational Research* 72(3):387–431.
- Spillane, J. (1998). "A Cognitive Perspective on the Role of the Local Educational Agency in Implementing Instructional Policy: Accounting for Local Variability." *Educational Administration Quarterly* 34(1):31–57.
- Stone, M. and J. Sandfort. (2009). "Building a Policy Fields Framework to Inform Research in Nonprofit Organizations." *Nonprofit and Voluntary Sector Quarterly* 38(6):1054–75.
- Tabak, R., E. Khoong, D. Chambers, and R. Brownson. (2012). "Bridging research and practice: models for dissemination and implementation research." *American journal of preventive medicine* 43(3):337–50.
- VanMeter, DS, and CE VanHorn. (1975). "The policy implementation process a conceptual framework." *Administration & Society* 6(4):445–88.
- Waldo, Dwight. (1948). *The Administrative State: A Study of the Political Theory of American Public Administration*. New York: Ronald Press.

Watkins-Hayes, Celeste. (2009). *The New Welfare Bureaucrats*. Chicago, Illinois: University of Chicago.

Weible, C., P. Sabatier, and K. McQueen. (2009). "Themes and Variations: Taking Stock of the Advocacy Coalition Framework." *Policy Studies Journal* 37(1):121–40..

Wilson, J. (1991). *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books.

## Tables

**Table 1**

Implementation Articles by Journal Type (2004-2013)

	% of Total	"Policy Implementation" <sup>†</sup>	"Program Implementation" <sup>‡</sup>
Public Affairs Core	11%	18%	1%
Implementation Science Core	5%	2%	11%
Other Journals	83%	80%	88%
<b>Total Articles</b>	<b>1,507</b>	<b>905</b>	<b>610</b>

*n=1,507 articles*

<sup>†</sup>Contains only abstracts, keywords, or titles that explicitly mention "policy implementation."

<sup>‡</sup>Contains only abstracts, keywords, or titles that explicitly mention "program implementation."

**Table 2**

Implementation Articles by Content Area, Policy Focus, and Target Population Focus

	% of Total	"Policy Implementation" <sup>†</sup>	"Program Implementation" <sup>‡</sup>
<b>Content Areas<sup>†</sup></b>			
Agriculture	2%	2%	1%
City and Regional Planning	2%	3%	1%
Crime	2%	2%	2%
Education	18%	17%	19%
Energy	2%	2%	--
Environment	11%	17%	3%
General Implementation	6%	8%	1%
Health	49%	32%	73%
Social Welfare	8%	8%	8%
Transportation	1%	2%	1%
Other Content Areas	9%	14%	3%
<b>Policy Mention<sup>†</sup></b>			
International Level	2%	3%	--
Federal or National Level	11%	16%	3%
State or Local Level	6%	8%	3%
Unclear Level	2%	2%	1%
No Policy Mention	80%	71%	93%
<b>Target Pop. References<sup>†</sup></b>			
Child	13%	6%	22%
Disabled	1%	2%	1%
Elderly	2%	1%	2%
Medically Vulnerable	15%	7%	26%
Parents and Family	7%	5%	11%
Poverty	4%	4%	5%
Race and Ethnicity	3%	1%	5%
No Target Population Mention	66%	79%	47%
<b>Research Strategy</b>			
Conceptual	7%	9%	3%
Qualitative	20%	22%	17%
Quantitative	34%	24%	49%
Mixed	7%	5%	8%
Ambiguous Method	8%	7%	8%
Descriptive Case Study	25%	33%	13%
<b>Total Articles</b>	<b>1,507</b>	<b>905</b>	<b>610</b>

<sup>†</sup>Subcategories are not mutually exclusive.<sup>†</sup>Contains only abstracts, keywords, or titles that explicitly mention "policy implementation."<sup>‡</sup>Contains only abstracts, keywords, or titles that explicitly mention "program implementation."

**Table 3**

Multi-Level Focus: Research Findings by Policy or Program Focus

	% of Total	"Policy Implementation" <sup>†</sup>	"Program Implementation" <sup>‡</sup>
<b>Level of Analysis<sup>†</sup></b>			
Program-specific Findings	35%	20%	52%
Front-level Findings	19%	19%	19%
Organizational Findings	16%	16%	16%
Policy Field Findings	36%	50%	21%
Multi-level Findings	13%	14%	12%
<b>Total Articles</b>	<b>1,128</b>	<b>607</b>	<b>528</b>

*n=1,128 articles*<sup>†</sup>Subcategories are not mutually exclusive.<sup>†</sup>Contains only abstracts, keywords, or titles that explicitly mention "policy implementation."<sup>‡</sup>Contains only abstracts, keywords, or titles that explicitly mention "program implementation."

**Table 4**

Content Areas, Research Strategy, Policy Focus, and Target Population Focus by Level of Findings

	<i>% of Total</i>	Program-specific Findings	Frontline Findings	Organizational Findings	Policy Fields Findings	Multi-level Findings
<b>Content Areas<sup>†</sup></b>						
Education	18%	17%	23%	26%	16%	21%
Environment	9%	3%	7%	4%	19%	8%
Health	56%	78%	60%	63%	39%	60%
Social Welfare	8%	5%	13%	8%	11%	13%
Other Content Areas	19%	8%	9%	8%	25%	9%
<b>Policy Mention<sup>†</sup></b>						
International Level	1%	1%	--	--	3%	--
Federal/National Level	9%	6%	11%	10%	14%	12%
State or Local Level	5%	6%	6%	6%	6%	8%
Unclear Level	1%	2%	2%	--	1%	2%
No Policy Mention	83%	85%	82%	84%	76%	78%
<b>Target Pop. References<sup>†</sup></b>						
Child	15%	25%	15%	13%	9%	14%
Disabled	2%	1%	1%	3%	2%	3%
Elderly	2%	2%	3%	2%	1%	1%
Medically Vulnerable	17%	24%	18%	15%	12%	14%
Parents and Families	9%	11%	14%	8%	6%	11%
Poverty	4%	4%	4%	3%	4%	3%
Race and Ethnicity	3%	3%	6%	3%	2%	5%
No Target Pop. Mention	62%	47%	57%	63%	71%	60%
<b>Research Strategy</b>						
Conceptual	9%	--	5%	6%	15%	8%
Qualitative	27%	7%	44%	48%	37%	49%
Quantitative	45%	76%	30%	23%	28%	20%
Mixed	8%	8%	15%	16%	8%	17%
Ambiguous Method	10%	9%	7%	6%	11%	5%
<b>Total Articles</b>	<b>1,128</b>	<b>397</b>	<b>215</b>	<b>179</b>	<b>411</b>	<b>149</b>

<sup>†</sup>Subcategories are not mutually exclusive.



---

<sup>1</sup> Other public administration and political scholars have referred to this level as the “policy subsystem.”

<sup>2</sup> In total there were 473 articles excluded from the analysis. Of these, 467 were excluded for being unrelated to policy or program implementation (i.e. the article was focused on the implementation of a computer program), and six were excluded because they did not have an abstract.

<sup>3</sup>They are: *American Journal of Community Psychology*; *Health Education and Behavior*; *American Journal of Evaluation*; *Health Education Research*; *Journal of Primary Prevention*; *Prevention Science*; *Implementation Science*; *Journal of Community Psychology*; *Children & Youth Services Review*; *American Journal of Public Health*.

<sup>4</sup>We are careful to only select content areas that are the primary focus of the analysis, or the dependent variable (when possible). For example, while a school vaccination program may happen in an educational setting, it is coded as “health” rather than “education” since the outcome of interest is student vaccines.

<sup>5</sup> Whether an article is coded as referencing a specific policy at the international, federal, or state and local levels is determined by the level of the policy in question. For example, if a study of a federal education policy were being conducted within a state or locality, that would still be coded as an explicit reference to a federal policy.

<sup>6</sup> The key words we searched for were often synonyms for the target population, such as “aged” or “senior” for the elderly target, or “youth” or “adolescent” for the child target. Where appropriate, we also included a number of specific words associated with the targets based on an initial review of the abstract sample. For the medically vulnerable target, these included references to specific diseases or ailments that are commonly referenced in the literature (e.g. HIV, malaria, or malnourishment), while for the racial or ethnic minorities we searched for specific groups (e.g. African-American or Latino/Latina).

<sup>7</sup> We determined our code of findings in relation to the focus and/or the design of the study. For example, a study using a survey to assess teachers’ responses to the implementation of a mentoring program would be coded as presenting “front-line” findings by this standard; if the abstract also mentions potential broader implications for the education field it would not be coded policy field-level, as those claims would be largely speculative and beyond the scope of the actual analysis within the study.

<sup>8</sup>We first adopted his approach in the coding in our sample and found similar trends to what he reported ten years ago: Nine percent of the studies were published in “core journals” for public affairs (those which were general public administration, political science, or policy journals), 14 percent were in “near-core” (those that focused on a policy in a specific context, i.e. *Energy Policy*), and 77 percent were in non-core journals (any journal not classified as core or near-core). For the period from 1985 through 2003, Saetren (2005) reported 12 percent of studies in core journals, 16 percent in near core, and 72 percent in non-core. For the specific results presented in this paper, we differ from Saetren in that our definition of core public affairs journals depends on the ISI public administration and political science classification of journals, and does not distinguish between core and near-core.

<sup>9</sup> Additional content areas were explicitly coded, but are included in the “Other Content Areas” category due to their relatively low prevalence in the sample. These categories include business implementation, food, international development, international relations, monetary policy, and science and technology.

<sup>10</sup> It is worth noting that the disproportionate focus on the fields of health, education, social welfare, and the environment may reflect the high amount of funding available for in-depth research in these fields relative to the other less-represented research areas.

<sup>11</sup> To reduce bias in external generalizability, we report only those content areas with more than 100 publications.