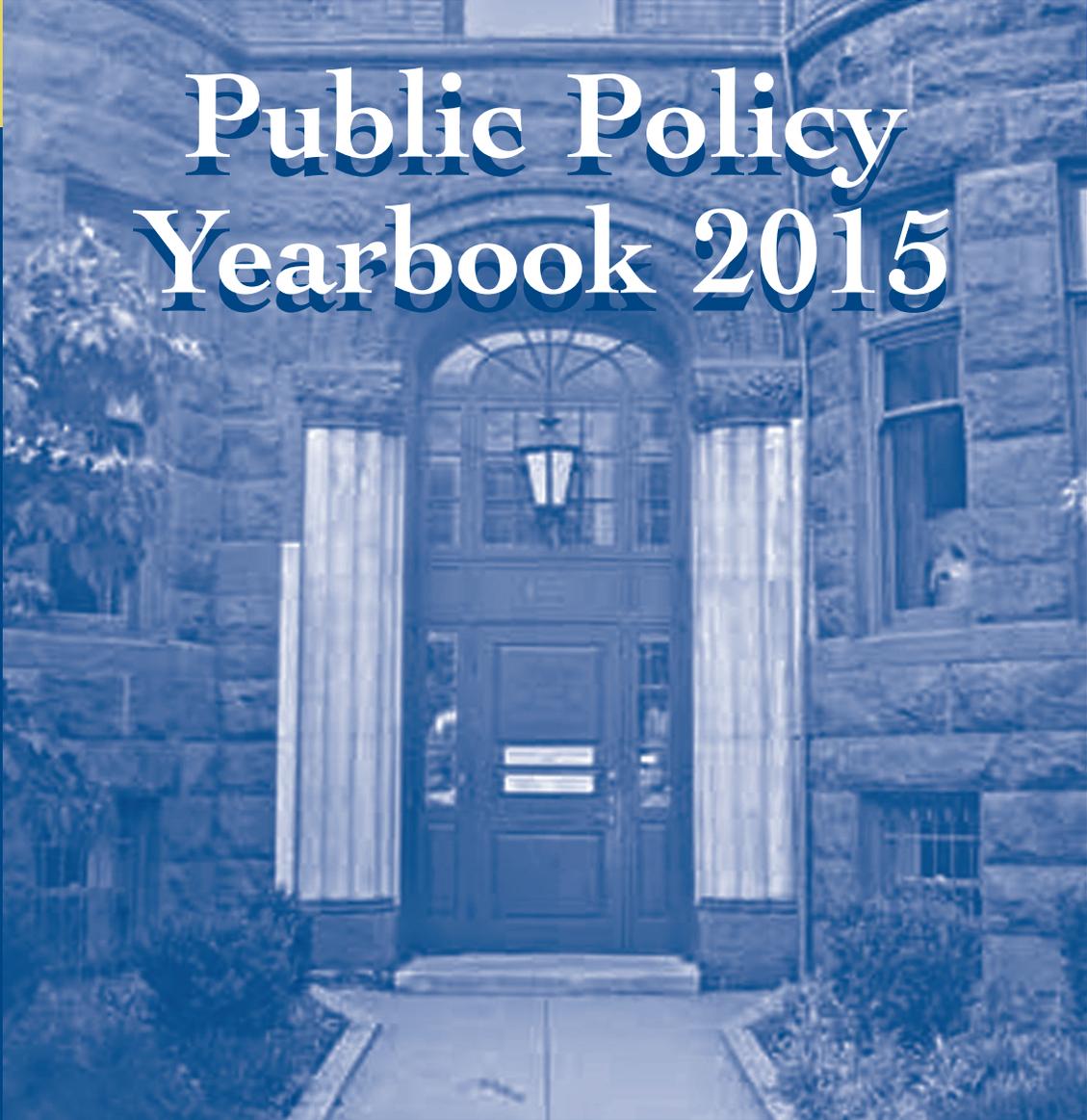


PSJ

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Public Policy Yearbook 2015

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Policy Studies Journal

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Aims and Scope

The primary focus of the Policy Studies Journal (PSJ) is the study of public policy. Published on behalf of the Policy Studies Organization and the American Political Science Association's Public Policy Section, PSJ publishes individually submitted articles and symposia of exceptional quality by social scientists and other public policy researchers and leaders. The journal addresses a wide range of public policy issues at all levels of government, and welcomes a comparative approach. We accept a variety of manuscript types.

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The 2015 Public Policy Yearbook: Tracking Research in Public Policy

Sarah Trouset, Hank Jenkins-Smith, Nina Carlson, and Chris Weible

This supplemental issue marks the seventh edition of the *Policy Studies Journal's Public Policy Yearbook*. This issue includes retrospective review articles summarizing recent developments in public policy research in three focus areas: education policy, energy and natural resource policy, and urban public policy. In addition, you can find the main content of the 2015 *Yearbook* online at: www.psjyearbook.com. By visiting the *Yearbook's* website, users can utilize a free web-based interface to easily search for various policy scholars' contact information, as well as up-to-date summaries describing listed scholars' self-reported descriptions of current and future research ideas and projects. In this introduction we provide a brief description of the *Yearbook*, and then present a snapshot of current developments in public policy research. In the 2014 introductory article (Trouset, Jenkins-Smith, & Weible, 2014), we presented a detailed description of the functionality of the *Yearbook* website, as well as a comparative look at developments in public policy research over the last 6 years. Rather than duplicate that discussion, this year we focus our discussion on the progress of the *Yearbook's* published, peer-reviewed retrospective review articles. In the third section, we introduce the new articles to be published within this supplemental issue of the *Policy Studies Journal*, and provide an overview of the complete collection of retrospective review articles dating back to the launch of the series in 2011.

Background on the Public Policy Yearbook

The *Public Policy Yearbook* is an international listing of experts in various public policy domains, working on public policy problems all over the globe. Each year, we collect information from public policy scholars about their fields of study, research focus areas, published works, and contact information.¹ This information is then published as part of a directory of individual profiles on the *Yearbook's* website. The multidisciplinary nature of public policy research can make it challenging to identify the experts studying various policy problems, and the *Yearbook* provides users with an easier way to do so. Our intent is to provide a convenient tool for policy scholars to increase and broaden the visibility of their work, as well as to provide a means to network with other scholars.

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Currently, my research focuses on the scientific, institutional, and social forces that influence public perceptions about, preparation for, and responses to natural and anthropogenic crises and disasters. I am also interested in mechanisms through which individual attention, beliefs, and emotions influence the political and policymaking process.

Citation:	Ripberger, Joseph T., Carol L. Silva, Hank C. Jenkins-Smith, Deven E. Carlson, Mark James and Kerry G. Herron. Forthcoming. "False Alarms and Missed Events: The Impact and Origins of Perceived Inaccuracy in Tornado Warning Systems." <i>Risk Analysis</i> .
Abstract:	Theory and conventional wisdom suggest that errors undermine the credibility of tornado warning systems and thus decrease the probability that individuals will comply (i.e., engage in protective action) when future warnings are issued. Unfortunately, empirical research on the influence of

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Figure 1. An Example of a Scholar's Profile.

Notes: The amount of detail presented in the profile depends upon what the individual scholar chooses to provide.

By using the website, readers can search for an expert through a range of search criteria options, which include: a scholar's first or last name, geographic location, institution, or primary research interests (see Figure 1 for an example of a scholar's profile).

For those unfamiliar with the *Yearbook*, the first edition was released in 2009 as a printed, standalone issue of the *Policy Studies Journal*, followed by the release of an interactive, searchable website in 2011. We also use the content of the *Yearbook* to develop indicators for scholars' evolving research agendas. The developments and trends we identify are only representative of the sample of *Yearbook* participants. However, despite a more than doubling of the membership in the last 7 years, the content of the *Yearbook* has evidenced only modest changes in scholarly focus areas (see Figure 2). We will describe these patterns of scholarly focus in greater detail in the next section. You can find a more detailed description of the *Yearbook* by visiting: www.psjyearbook.com/about, or by reading previous editorial articles published at the beginning of the *Yearbook's* annual supplemental issue of the *PSJ* (Jenkins-Smith & Trouset, 2010, 2011; Jenkins-Smith, Trouset, & Weible, 2012, 2013; Trouset et al., 2014). We also invite you to visit the website for further exploration (www.psjyearbook.com).

Characteristics of *Yearbook* Participants and New Developments in Policy Scholarship

As we do each year, in Fall 2014 we reached out to the *Yearbook's* current listing of policy scholars, asking each member to update the information published on his

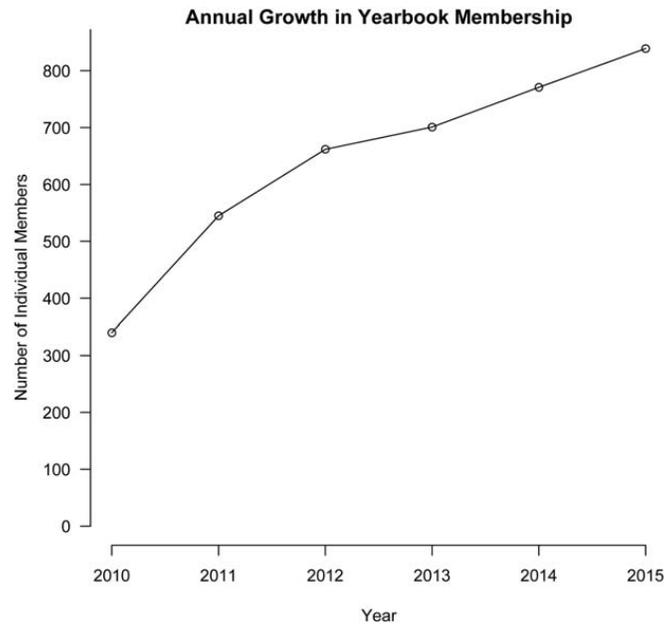


Figure 2. Growth in *Yearbook* Membership since 2010.

or her profile.² This annual updating process allows us as to verify the accuracy of listed scholars' contact information and to encourage members to list recently published articles and/or research in progress. As is evident in Figure 3, our most recent update shows that the *Yearbook* continues to represent a broad cross-section of policy scholars from around the world; the 2015 *Yearbook* has 839 members, residing in 47 different countries. This is a 9 percent increase from our 2014 membership, and is more than double our 2010 membership (340 members). In order for the *Yearbook* to continue to be the most broadly representative source available for information on current policy scholars and practitioners, we are continuing to reach out to practicing

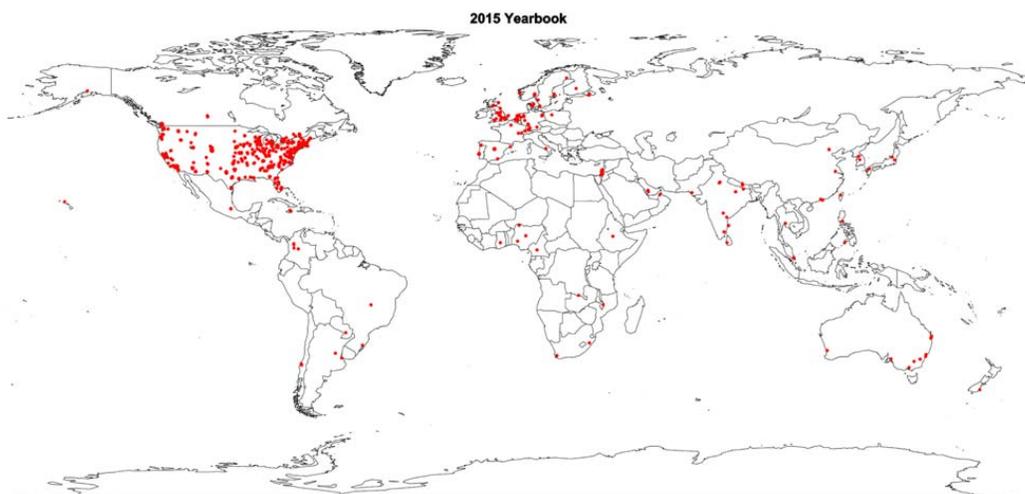


Figure 3. The *Yearbook's* Geographic Representation Spans 47 Different Countries.

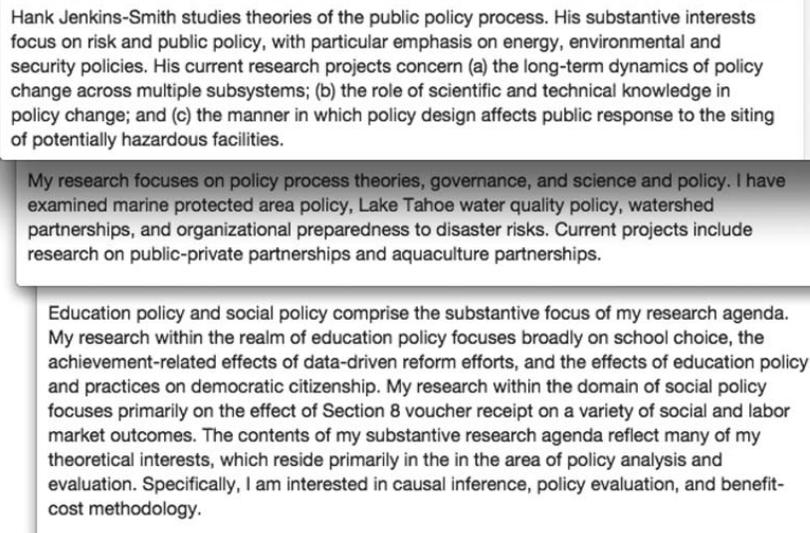


Figure 4. Selected Examples of Scholars' "Current and Future Research Expectations" Sections in the *Yearbook*.

scholars, graduate students, post-docs, research scientists, and practitioners in public policy. Thus, we appreciate your time and effort taken to update your profile.

As we have mentioned in past issues of the *Yearbook*, the self-reported content of scholars' profiles provides insight into the developments in policy scholarship through the use of several descriptive indicators that summarize and characterize scholars' evolving research agendas. These indicators include scholars' self-reported descriptions of their "current and future research expectations," as well as scholars' self-identification across 18 theoretical and substantive focus subfields of public policy.³ Below, we review some of the developments evident in the 2015 collection.

First, *Yearbook* scholars are asked to provide a paragraph describing their current and ongoing research agendas. When writing this paragraph, scholars may be as brief or as detailed as they choose. Figure 4 provides a snapshot of three sample entries from the summaries of Drs. Hank Jenkins-Smith, Chris Weible, and Deven Carlson (top to bottom).

By scanning the content in the 2015 current research summary paragraphs, we can illustrate current trends among scholars' work by creating a word cloud populated by frequently used terms (see Figure 5). The word cloud provides a graphical representation of the aggregate foci of scholars' substantive and theoretical work, and provides us with a comparative perspective of the evolution of research agendas. Figure 5 presents the 100 terms that appeared most frequently in the "Current and Future Research Expectations" section of scholars' profiles. In 2015, the prominent research interests, characterized by the ten most frequently appearing terms, continue to be in the following areas: public policies; politics; environmental, health, and social issues; science; education and university issues; and governance and management. When comparing this word cloud with those from the past 5 years (Jenkins-Smith & Trouset, 2010, 2011;



Figure 5. Word Cloud.

Notes: The relative size of each term denotes the frequency with which key terms appear in scholars' listing of their "Current and Future Research Expectations."

Jenkins-Smith et al., 2012, 2013; Trousset et al., 2014), it appears that the proportion of research trends among *Yearbook* members has remained stable over time.

These trends are also consistent with *Yearbook* members' self-identifications in the *Yearbook's* listed public policy focus areas. When scholars are asked to update the information listed on their profiles, they are presented with a list of 18 categories that represent a broad spectrum of subfields in public policy scholarship. They are first asked to check as many of the categories that they choose to describe their research agendas. In addition, for the last 2 years, we asked scholars to indicate which category best describes their primary theoretical focus area and which best describes their primary substantive focus area. The five theoretical focus areas include: agenda-setting, adoption, and implementation; policy analysis; policy history; policy process theory; and public opinion. The thirteen substantive focus areas include: comparative public policy, defense and security policy, economic policy, education policy, energy and natural resource policy, environmental policy, governance, health policy, international relations and policy, law and policy, science and technology policy, social policy, and urban public policy.

Figures 6 and 7 show the proportion of scholars indicating one of the theoretical and substantive specializations as their *primary* focus area. As shown in Figure 6, the most prominent theoretical focus area was policy analysis and evaluation. The second and third most common areas were policy process theory and agenda-setting, adoption, and implementation. Despite seeing a general increase from 2014 to 2015 in all categories, it seems that the most prominent categories continue to be policy analysis and evaluation and policy process theory. As shown in Figure 7, across the substantive focus areas, the largest proportion of scholars study issues in

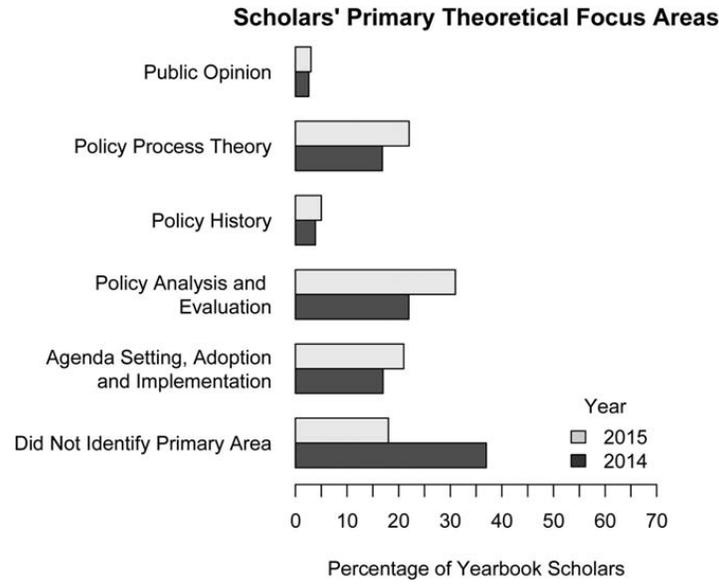


Figure 6. Scholars' Primary Theoretical Focus Area.

governance, environmental policy, and social policy. These were also the most prominent categories in 2014. However, in 2015, although there was a proportionate increase in most focus areas, scholars identifying health policy as their primary focus area represents a smaller proportion of the *Yearbook* community than in 2014.

Public Policy Research Retrospective Review Articles

A second major component of the *Public Policy Yearbook* is the publication of retrospective review articles. These review articles offer readers quick access to recent developments in the field, because they can provide both a basic introduction and a coherent current perspective on the field to emerging scholars interested in understanding various policy problems. To write these review articles, each year we solicit

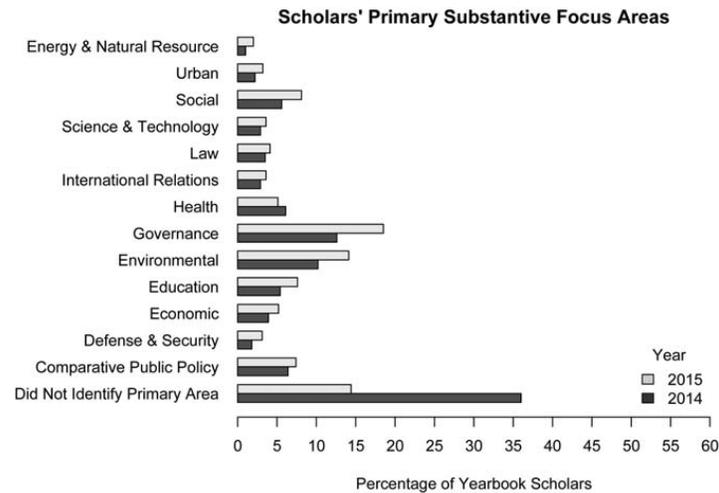


Figure 7. Scholars' Primary Substantive Focus Area.

recommendations for advanced graduate students working under the guidance of leading public policy scholars. This year, as part of this supplemental issue of the *Policy Studies Journal*, we are including a second iteration review article on the topic of research in education policy. In addition, we are also including articles in two focus areas that have only recently (2014) been added to the *Yearbook's* listed categories of policy subfields: energy and natural resource policy and urban public policy. These articles contain key developments in the following:

- **Education Policy:** Sarah Galey reviews current research on K–12 education policy in the United States. In her review, Galey discusses recent research evaluating the impact of reform policies on accountability and teacher evaluation, market-based reforms, educational research utilization, and local and state capacity building. This article provides a complement to the first *Yearbook* retrospective review article on education policy, in which Conner and Rabovsky (2011) focused on higher education policy.
- **Energy and Natural Resource Policy:** In the *Yearbook's* first published review article on Energy and Natural Resource policy, John Kester, Rachael Moyer, and Dr. Geoboo Song discuss policy issues such as agenda setting, policy diffusion and policy evaluation concerning nuclear energy, energy efficiency, renewable energy, and hydraulic fracturing operations.
- **Urban Public Policy:** The third review article is written by Aaron Deslatte. Deslatte summarizes recent research on issues of governance in urban politics and policy topics such as income, housing, racial/ethnic stratification, and sustainability. His review also highlights attention to recent questions regarding citizen participation, urban renewal, and equality.

With the addition of three new review articles in this 2015 supplemental issue, the *Yearbook* has now published a total of 23 review articles on topics spanning 19 different theoretical and substantive focus areas (see Table 1). We aim to cycle review articles within each substantive area listed in the *Yearbook* approximately every 3 years. In five of the policy research areas categorized in the *Yearbook*, we have now cycled two articles, written 3 years apart: policy process theories (Nowlin, 2011, Petridou, 2014), policy analysis (Blume, Scott, & Pirog, 2014; Carlson, 2011), agenda setting (Eissler, Russell, & Jones, 2014; Pump, 2011), public opinion and public policy (Bachner & Hill, 2014; Mullinex, 2011), and education policy (Conner & Rabovsky, 2011; Galey, 2015).

As shown in Table 1, the Google Scholar citation counts make evident that the *Yearbook's* retrospective review articles are gaining some attention among policy scholars. As is to be expected, articles with the highest number of citations were generally published between 2011–2012, and more recently published articles had lower citation counts. The five articles that were most prominently cited include: Nowlin's (2011) review on policy process theories, Conner and Rabovsky's (2011) review on education policy, Robichau's (2011) review on governance, Pump's (2011) review on agenda-setting, and Niles and Lubell's (2012) review article on environmental policy.

Table 1. Google Scholar Citation Count for *Yearbook* Review Articles

<i>Yearbook</i> Research Focus Area	Article	Google Scholar Citation Count as of February 2015
<i>Theoretical Focus Areas</i>		
Agenda-setting, adoption, and implementation	Pump (2011)	20
	Eissler, Russell, and Jones (2014)	2
Policy analysis and evaluation	Carlson (2011)	10
	Blume, Scott, and Pirog (2014)	0
Policy history	deLeon and Gallagher (2011)	4
Policy process theories	Nowlin (2011)	60
	Petridou (2014)	1
Public opinion	Mullinix (2011)	8
	Bachner and Hill (2014)	0
<i>Substantive Focus Areas</i>		
Comparative public policy	Gupta (2012)	15
Defense and security	Ripberger (2011)	11
Economic policy	Pump (2012)	5
Education policy	Conner and Rabovsky (2011)	34
Energy & natural resource policy		
Environmental policy	Niles and Lubell (2012)	19
Governance	Robichau (2011)	26
Health policy	Haeder (2012)	12
International relations	Redd and Mintz (2013)	3
Law and policy	Kreis and Christensen (2013)	1
Science and technology policy	Trousset (2014)	1
Social policy	Guzman, Pirog, and Seefeldt (2013)	4
Urban public policy		

These research focus areas also happen to be the areas most commonly mentioned in the current summaries and future expectations paragraphs discussed in the second section above (see Figure 5). We hope that scholars continue to utilize these review articles as a quick way to update themselves on the current state of research within specific focus areas. We invite you to read previously published review articles, which can be found on the *Yearbook's* website or within previous volumes of the *PSJ*. We also encourage you to recommend outstanding graduate students to author future iterations of retrospective reviews.

Final Remarks

Our goal is to make the *Yearbook* a convenient and accessible tool for scholars, practitioners, students, or laypersons to find the right scholars, articles, and networks working on a the full range of public policy questions. The *Yearbook* is intended to be a continuously updated resource for networking and collaboration amongst scholars, as well as a no-cost platform for scholars to publicize their research accomplishments and active projects. In the future, we also plan to focus greater attention on ways to maximize the use of the *Yearbook* as a web-based tool for the classroom. The *Yearbook* is a valuable resource for students of public policy and public management to dig deeper into policy questions and to easily access the current state of research in their policy domain of interest.

If you are interested in updating an existing profile or if you are not currently listed but are interested in becoming a member of the *Yearbook*, we have

made several improvements to our system to ease the process of creating a profile. Scholars can access their profiles at any time and make direct changes to their listings. Users can select from two different updating options by visiting the *Yearbook* website at: <http://www.psjyearbook.com/person/update>.

The first option is for scholars who already have a listed profile. On the webpage listed above, under the tab "Current Members," scholars can submit the email address they currently have on file with the *Yearbook*. Our system will then immediately send a personalized link via email that the scholar can use to access their current profile information. By visiting that personalized link, scholars can submit changes to their profile listings and these changes will be updated on the *Yearbook* website immediately.

The second option is for policy scholars who do not yet have a listed profile, but who would like to become a member of the *Yearbook*. Scholars can list their profile at no charge. By visiting the provided webpage listed above, scholars can click the tab that is labeled "Submit Your Information," or can go directly to our easy-to-use form at: <http://psjyearbook.com/entry/addme>. Once scholars submit their profile information, our system will await approval by an editor to list that profile on the website. This initial approval is necessary to avoid publishing "spam." Once that initial profile has been approved, scholars can go back in and edit their profiles immediately, as described in the previous paragraph. If you have any questions about this process, we welcome you to contact us at: psjyearbook@gmail.com.

Although scholars are able to access their profiles at any time and make direct changes to their listings, we will continue running an annual fall recruitment and updating campaign. In the annual fall campaign we send invitations to both current and potential new policy scholars to update their entries in the *Yearbook*. We do this to ensure that the *Yearbook* content stays as up-to-date as possible. We will continue our efforts to include faculty from public policy and public management schools and departments across the globe, as well as reaching out to graduate students, post-docs, and practitioners in public policy that make up the next generation of leaders in public policy research and analysis. We ask that current members assist in this effort by forwarding our invitations to affiliate policy scholars, practitioners, and graduate students.

Finally, the production and operation of the *Yearbook* could not have been accomplished without the help of many hands. We would like to recognize Matthew Henderson for the design and implementation of the online website, web-tools, and data graphics. In addition, we thank Hayley Scott for her help in editing *Yearbook* entries and review articles. Additionally, we are thankful for the support and help we receive from several individuals at the Policy Studies Organization and Wiley-Blackwell. Finally, we would like to thank Dr. Paul Rich, President of the Policy Studies Organization, for his financial support and encouragement for the *Yearbook*.

We hope that you will find the *Yearbook* to be a valuable resource in your work on public policy and hope you will continue to submit updates to your entries in the future.

Sarah Trouset
 Hank C. Jenkins-Smith
 Nina Carlson
 Chris Weible
Yearbook Editors

Notes

1. *Yearbook* membership is free of charge and open to all policy scholars and practitioners worldwide. Since the *Yearbook's* inception in 2009, we have sought to broaden the participation of public policy scholars across disciplines, organizations, and nations. The challenge is that, given the nature of public policy research, the domain of public policy scholars and practitioners is highly varied. Public policy research is multidisciplinary in nature, and policy scholars and practitioners inhabit a wide range of institutional settings (universities, governmental agencies, research labs, nonprofit organizations, think tanks, and many others). Initially our invitations were sent to the listed members of the Public Policy Section of the American Political Science Association, as well as members of the Policy Studies Organization. We worked with editors of public policy journals to reach policy scholars globally. More recently we sent electronic and printed invitations to public policy and public administration departments across the United States and Europe, asking each department to forward the invitation to their public policy faculty members, graduate students, and affiliates. Lastly, our online member updating system allows for current and new members to offer contact information for colleagues and graduate students who should be included. We are currently seeking to expand the scope of invitations to include major practitioner and scholarly organizations focused on public policy, such as the Association for Policy Analysis and Management (APPAM). In all cases, we undertake an active recruitment and update effort in the fall of each year to be sure our content is up to date and as broadly inclusive as possible.
2. Although we undertake a systematic recruitment effort once a year, it is important to note that scholars can update their profiles or join the *Yearbook* at any time. The website allows scholars to easily access their profiles by submitting their email address on the website profile management portal. The *Yearbook's* website also allows for new members to join, at no cost, through the use of a short online form. This process is described in greater detail in Section 1 of this introductory article.
3. When updating their profiles, scholars are asked to check off as many categories as are applicable to describe their research agendas.

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Education Politics and Policy: Emerging Institutions, Interests, and Ideas

Sarah Galey

The article reviews the most recent research on K–12 education policy and politics in the United States. I begin by exploring current reform trends and emerging institutional arrangements governing contemporary U.S. school systems in relation to patterns of increasing federal and state involvement in educational policy arenas. I then examine and synthesize studies from four key areas of educational policy research—accountability and teacher evaluation, market-based reforms, educational research utilization, and local and state capacity building. I conclude with an overview of gaps in the literature and suggestions for future research.

KEY WORDS: education policy, politics of education, accountability, teacher evaluation, market-based reforms, research use

Introduction

Current educational research unveils important patterns of change in educational governance and the process of policymaking. Growing public concern with the state of American K–12 education over the past several decades has prompted new efforts to improve schools and raise student achievement. The two most recent major federal education policies—Bush’s 2001 No Child Left Behind (NCLB) act and Obama’s 2009 Race to the Top (RTTT) initiative—are key indicators of the growing involvement of the national government in education reform, not “just in issues having to do with civil rights and student rights,” as has characterized federal involvement in the past, but increasingly in matters that get close to the “core of the educational enterprise, curriculum, teacher qualifications, and the like” (Henig & Bulkley, 2010, p. 323). In relation, standards-based accountability, which focuses on improving educational outputs, usually in the form of student test scores, and market-based reforms, where the privatization of educational services introduces competitive market structures into the educational sector in the hopes of improving efficiency and educational quality, are both prominently featured in both NCLB and RTTT. Through centralization and privatization, these policy instruments tend to diminish the power of local school boards, as well as local teachers’ unions (Cooper

& Sureau, 2008; Goertz, 2009; McGuinn, 2006)—a key characteristic of shifting institutional climates in educational settings.

In short, educational issues are no longer only a providence of local authorities, but rather are frequently front and center in state and national policy agendas (Henig, 2013). In addition to being dispersed across multiple levels of government, educational policymaking and implementation processes are also becoming increasingly shared across public and private sectors. Nongovernmental actors, such as foundations, think tanks, and charter management organizations, play significant roles across the educational policy spectrum. They may, for example, advocate for a particular reform or program, produce educational research and data analysis for district and state officials, or organize professional development activities. This theme permeates current educational policy scholarship in a variety of forms; for example: the growing importance of outside vendors for managing state data and assessment systems, the growth and diversification of school choice options, and the rise of intermediary organizations (IOs) in the production and utilization of educational research. Relatedly, scholars have also noted the resurgence of “general-purpose” institutions for educational decision making, which has contributed to new political dimensions where a diverse array of new interests that traditionally have left the educational policy sector to its own devices are now major players in school reform across federal, state, and local contexts (Henig, 2013). Significantly, they often bring new ideas and beliefs with about how to manage and deliver educational services—one of the major drivers of the increasing use of market-based solutions in educational reform.

The introduction of so many new actors and organizations involved in educational policy also yields critical new avenues of funding and support for educational research and innovative reforms. New and existing educational organizations, for example, are especially concerned with the impending implementation of the Common Core State Standards (CCSS)—the new “U.S. intended curriculum” (Porter, McMaken, Hwang, & Yang, 2011). Many policymakers and researchers are also focused on assessing and revamping statewide teacher evaluation systems, as well as the continued expansion of school choice options, particularly charter schools. Importantly, these endeavors and other major federal and state policy initiatives often require a massive influx of resources for a wide range of local reform activities. Numerous districts, for example, are currently engaged in major curricular overhauls in response to the CCSS, which require the retooling and retraining of the teacher workforce. Thus, while recent federal and state policies may form the contours of contemporary educational policy contexts, local conditions continue to have significant consequences for successful policy implementation.

In the first section of this essay I expand on these themes, reviewing recent research oriented toward key political and policy shifts in educational domains. The focus here is on major issues of policy formation and implementation in U.S. K–12 educational settings including: (1) analysis of recent federal reform efforts; (2) the implications of new, emerging institutional arrangements; and (3) the implementation of the CCSS. The first part of this essay also serves as a backdrop for subsequent sections by introducing key contextual features of modern educational systems.

Within this broader analytical framework, I then consider specific findings geared toward four key areas of current educational policy research—accountability and teacher evaluation, market-based reforms, educational research utilization, and local and state capacity building. Importantly, there are other key themes in current research that have important consequences for K–12 educational systems, but fell beyond the scope of this essay and were conscientiously omitted, including international education; pre-Kindergarten; and higher education, or K–16, policies.

Trends in Reform, Governance, and Intergovernmental Relations

Scholars have observed significant changes in how power and authority is distributed across educational policymaking arenas (Conley, 2003). The past 30 years have been marked by an incremental and steady increase of federal and state involvement in U.S. schools, creating a “new order and era in American education” (Fusarelli & Fusarelli, 2014, p. 189). While states technically retain constitutional authority over educational processes, the growing federal role has been enhanced by “borrowing strength,” in which the national government advances its agenda by accessing and building on existing state and local policies (Manna, 2006).

Emerging Institutional Arrangements in an Era of Reform

Over the past 50 years, an assorted “alphabet soup” of federal policies has significantly increased the role of national and state governments in K–12 education, substantially expanding their funding and oversight of local programs (Manna, 2006; Trujillo & René, 2012, p. 2). The 1965 enactment of the Elementary and Secondary Education Act (ESEA) began a period of much closer monitoring of federal funds earmarked for education and whether they were being used effectively to achieve their desired outcomes (Rossi, Lipsey, & Freeman, 2004). Often referred to as “Title I” because of the funding designated for particular subgroups, the ESEA and its subsequent reauthorizations—most recently NCLB in 2001—have incrementally more tightly coupled federal and state governments with localities. Over the past three decades, the evolution of federal accountability policies governing educational systems has shifted from those with, “a primary focus on fiscal probity with limited scrutiny of schooling processes and outcomes” to policies focused on using measurable educational outputs, particularly student performance on standardized tests, to evaluate schools and teachers (Cohen & Moffitt, 2009; McDermott, 2011; McDonnell, 2013, p. 170; Shipps, 2011). Shortly after a wave of federal and state standard setting in 1980s, states began to develop tests to track educational performance, which by the 1990s would “replace the wall chart for the purpose of rating and ranking states” (Shipps, 2011, p. 274). Building off these themes in the 2000s, Bush’s NCLB act, and more recently Obama’s RTTT initiative, have further developed and entrenched state systems of standard-based accountability, where schools (and more recently teachers) are held responsible for educational performance (Fusarelli & Fusarelli, 2014; McDonnell, 2013). Importantly, this evolution in accountability policies has provoked

a narrative of centralization vs. decentralization that frequently pits national and state policy preferences against local authorities (Henig, 2013).

NCLB changed the institutional landscape by, among other things, mandating the annual testing of all students in core subject areas and imposing timelines for improving student achievement with sanctions for underperforming schools that did not meet “adequate yearly progress” (Sunderman & Kim, 2007). It became apparent early on, however, that states and districts had limited capacity to meet the ambitious goal of NCLB to reach 100 percent academic proficiency by 2013–14, and the 2008 recession only exacerbated these resource constraints (Manna, 2011; McGuinn, 2012; Sunderman & Kim, 2007). Partly as a result, the Department of Education granted waivers to 43 states that significantly relax many of NCLB’s provisions (U.S. Department of Education, 2014). Despite these waivers, Obama’s RTTT program has maintained the general course set by the law, but focused more on incentives and building state capacity to achieve performance-related goals—using the “carrot” rather than the “stick” to motivate reform efforts (McGuinn, 2012). RTTT authorized a \$4.35B competitive grant program that encouraged states to develop ambitious educational reform agendas, with a number of specifications for what that meant (known as the “four assurances”), including the development of comprehensive longitudinal educational data systems, the adoption of high-quality standards and assessments, the training and retention of effective educators, and turning around the lowest-performing schools and districts (American Recovery and Reinvestment Act of 2009). Significantly, because of the provisions related to common standards and assessments embedded in RTTT, the policy is also closely connected with the enactment of the CCSS. The CCSS (discussed in greater detail later in this section), are a state-led effort to adopt “national” academic standards in core subjects, signaling a turning point in U.S. education, which has traditionally relied on states to set their own, unique academic standards. In short, states had a better chance of receiving grant money if they adopted the CCSS.

Recent federal policies also emphasize market-based reforms, representing another key driver of ongoing changes in educational governance. A number of scholars have articulated the prominent role of market-based principles in shaping NCLB, RTTT, and other modern reform efforts (Apple, 2007; Burch, 2009; Hursh, 2007; Trujillo & Reneé, 2012). Market-based reforms are rooted in the idea that educational bureaucracies are fundamentally inefficient and do not provide enough incentives for schools to improve. Markets shift the incentives for change by introducing competition and accountability into the school system (Chubb & Moe, 1990). In this context, the widespread acceptance of charter schools has “softened” the political environment for other forms of school choice, as well as the general privatization of educational services (Burch, 2009). Much of the rhetoric surrounding modern school reform, such as the popular “Portfolio Management Model” for urban schools, is frequently connected with market-based solutions, such as contracting out and the privatization of educational services (Bulkley, 2010). Consequently, in current educational research and practice another major cleavage has unfolded involving the distribution of public- vs. private-sector authority over educational processes—with government institutions on one side and either market systems or

civil society (e.g., parent organizations, religious groups, etc.) on the other (Henig, 2013).

Finally—and largely as a consequence of many of the shifting institutional arrangements in educational policymaking discussed here—many scholars have noted the reassertion of general-purpose institutions for educational governance and, in relation, the systematic reintegration of educational issues into broader policy arenas and political debates (Fusarelli & Fusarelli, 2014; Henig, 2013). This phenomenon is couched by Henig (2013) as the “end of exceptionalism in American education” and refers to incremental dissolution of education as a highly localized, expert-oriented enterprise controlled by education-specific institutions. It involves the increasing dominance of institutions like the national and state governments that take responsibility for a wide spectrum of public policy issues, such as health, transportation, housing, parks, criminal justice, and education. For many years, educational systems have been governed primarily by “single-purpose” institutions responsible for education alone, most prominently the local school district—a norm emanating from a historical desire to insulate schools from partisan politics and keep policymaking in the hands of educational experts and technicians (Henig, 2013). Significantly, this trend intersects with patterns of centralization and privatization in ways that “influence receptivity to different political interests and policy ideas” at all levels of government (Henig, 2013, p. 19).

Local Centralization—Mayoral Governance and State Takeover. Centralization at the local level, often prompted by accountability-based sanctions, has contributed to the reestablishment of general-purpose governance in the form of district takeover by executive and/or central authorities. Recent scholarship on this type of institutional shift has mixed results. Mayors and state officials have more political visibility than traditional public school boards and cater to a broader constituency—holding them accountable for school performance is intended to integrate district accountability, educational delivery, and the electoral process at a system-wide level, as well as streamline educational services with other public policy sectors (Edelstein, 2008). Meanwhile, the reallocation of single-purpose local power to central state-appointed “emergency managers,” the introduction of legal state takeover in the form of “extraordinary authority districts,” and district turnaround by state- and mayor-appointed school boards represent other forms of general-purpose centralization at the local level.

Mayoral governance of educational systems, which may include more or less centralized arrangements, ranging from full mayoral control to shared governance structures, has increasingly characterized institutional reform in several major urban districts across the United States over the past 20 years (for a rich overview, see Wong, Shen, Anagnostopoulos, & Rutledge, 2007). An updated 2013 analysis by Wong and Shen (2013) shows that mayoral governance may have a slightly positive impact on educational achievement—mayor-led districts tended to show higher levels of student achievement growth than state averages of other districts. The magnitude of the effects, however, was generally small, ranging from 1 to 3 percent and was only found to be significant in one location (Boston). More robust statistical

analysis also suggested that the initial academic gains may taper off after a few years—7 to 8—and continuous improvement may require mayors to adapt to changing local contexts over time. Recent analyses also suggest that mayoral governance may help to reorient local agendas toward educational issues and service integration, often facilitating collaborations between educational actors and local service providers across different sectors (Snyder, 2014; Wong & Shen, 2013).

Next, a small but increasing number of states has authorized state-led turnaround districts to address “chronically failing” school systems. These “extraordinary authority districts” (EADs), also referred to as “legal education authorities” or “recovery school districts,” are districts created by legislation that asserts state authority over the lowest performing schools statewide, regardless of geographical location (Public Impact, 2014). In recent years, some states have taken control of financially distressed districts as well (Arsen & Mason, 2013). Current research on these entities is still developing, but initial observations are telling. Emerging work on EADs, while mostly descriptive in nature, reflects a strong preference for market-based reforms, indicating that state-led districts favor school-based autonomy and accountability, as well as partnerships with external providers and the expansion of school choice options (Arsen & Mason, 2013; Education Achievement Authority, 2014; Empower Schools, 2014; Smith, 2012, 2013; Whitehurst & Whitfield, 2013).

Evolving Interests and Ideas. New decision-making venues mean new opportunities for political actors to exercise influence and lobby their agendas. One consequence of the shift toward a more centralized, general-purpose form of educational governance has been the corresponding arrival of a wide range of new actors and organizations interested in educational issues—many of them used to wielding influence in Washington, DC and in state capitols (Henig, 2013; Shipps, 2011). Using a policy feedback model, which posits that, “policies enacted and implemented at one point in time shape subsequent politics as both an input into the policy process and an output” (McDonnell, 2009, p. 417), McDonnell (2013) notes that modern policy regimes featuring standards-based accountability and school choice reforms have been accompanied by the arrival of a wide range of new educational interests, as well as the realignment of traditional educational policy actors. Mandates to improve failing schools, for example, have been accompanied by a “politics of bad news” that has fomented new parent groups interested in converting their underperforming public schools to charter schools, as well as state-led and mayor-led interventions (McDonnell, 2013).

“Bad news” pressures have also garnered opposition from teachers’ unions that feel accountability policies unfairly target educators, holding them responsible for the problems of public education. Unions also objected to the focus on performance-based compensation and school choice in RTTT, although members of the American Federation of Teachers and National Education Association recognize that teachers are less influential than they were in the past and must make efforts to adapt to new policy directions in order to accommodate the “new education status quo” (Goldstein, 2014; McDonnell, 2013, p. 177; Weingarten, 2012). In this new policy, landscape

teachers' unions are vulnerable from both federalizing and privatizing forces that, on the one hand, challenge the influence unions have over local educational politics and district policy, and on the other, threaten the public system monopoly over education that is fundamental to union organization (Cooper & Sureau, 2008). Nowadays, many union members are more open to tenure reform and there is a strong movement within the educator community—particularly among younger teachers—to work with reformers who support policies that unions have traditionally opposed (Goldstein, 2014).

The phenomenon of “unions as reform partners” is based on the idea that teachers' unions are legitimate stakeholders in the education system and their cooperation is a necessary, if not desirable, element of any school reform effort (Bascia & Osmond, 2012). In contrast, some see such “reform unionism” as “completely wrong-headed” and continue to see teachers' unions as self-serving adult organizations that permanently obstruct effective, high quality schooling by advocating for teacher benefits at the expense of student learning (Moe, 2011, p. 242). This dichotomy echoes earlier analysis by Kerchner and Koppich (2000), explaining that teachers' unions can be treated as “the problem” or part of the “solution,” as a critical resource for improving instructional quality and educational outcomes. Either way, American teachers remain strongly committed to their unions—over 80 percent of teachers continue to support collective bargaining and their right to go on strike (Moe, 2011, p. 404). Meanwhile, at the local level unions continue to play a central role in school district policy through collective bargaining agreements (CBAs) negotiated between unions and districts. One recent study, for example, shows that stronger unions can be empirically linked to CBA provisions that limit district administrator flexibility, such as their ability to use performance-based evaluations to make decisions about teacher placement (Strunk & Grissom, 2010).

Finally, civil rights organizations adjusting to new output-based definitions of equity, which focus on the “achievement gap” between affluent, high- and low-SES student populations, as well as between whites and racial/ethnic minorities, have split in their support of test-based accountability. Some groups, like the Education Trust and the National Council of La Raza support accountability policies, while others, like the NAACP and the National Association for Bilingual Education have criticized the narrow scope of test-based accountability on sanctioning low-achieving schools, suggesting that policies should instead focus on holding federal, state, and local governments accountable for providing resources to address gaps in student performance (McDonnell, 2013). Overall, recent shifts in policy actors and ideas have been characterized on the one hand, by the introduction of a wide range of new interests and stakeholders, and on the other, by a significant reshaping of the interests and ideas of the existing “educational establishment.”

The Common Core State Standards

The CCSS in mathematics and English language arts (ELA) were developed in 2009 and 2010 by a collaboration of educational experts led by the National

Governors Association and the Council of Chief State School Officers (CCSSO). By 2012, 46 states and the District of Columbia had adopted the CCSS, but over the past 2 years the standards have become an increasingly contentious issue in educational and general policy circles alike (Hess & McShane, 2014). A number of recent analyses exploring the evolving political and policy repercussions of the CCSS raise important questions about implementing and sustaining the standards.

Instructional Challenges. The first set of challenges related to instructional implementation is an especially pressing issue for educators. Indeed, in CCSS states, academic content and pedagogical approaches must be restructured to align with standards, which often focus on different knowledge and skills, as well as prepare students for new assessments being produced for the Common Core—classroom materials, instructional resources, and teaching strategies have to adjust accordingly (Hess & McShane, 2014). In 2013, the annual *Metlife* survey of school personnel found that 59 percent of teachers and 67 percent of principals thought implementing the CCSS would be either “very challenging” or “challenging”—at the same time, most principals (90 percent) and teachers (93 percent) also believed that teachers in their school have the academic abilities and skills to teach the CCSS. The survey also signals significant obstacles for CCSS implementation in high-needs schools, where on average fewer than one-third of teachers believe their students are performing at or above grade level in mathematics and ELA (Markow, Macia, & Lee, 2013). Recent studies of state alignment with the CCSS indicate the standards represent considerable changes for states—and some much more than others—as well as wide variability in state and local preparedness for many of these changes (Porter et al., 2011). Evidence indicates that there is low to moderate alignment between state standards and the CCSS, although assessments appear to be slightly more closely aligned (Porter et al., 2011; Schmidt & Houang, 2012).

As a result of these challenges, successful implementation of the CCSS likely requires a major retraining and retooling of future and current teachers, requiring major overhauls of both preservice and in-service professional development efforts (Hochleitner & Kimmel, 2014; Kober, McIntosh, & Rentner, 2013; Polikoff, 2014). A 2013 survey of state leaders conducted by the Center for Education Policy found that rough half of the CCSS states (22) reported that more than 50 percent of their math and ELA teachers had received some professional development on the Common Core, while relatively few states—only 10 states—reported more than a 75 percent participation rate (Kober, McIntosh, & Rentner, 2013). Traditional university-based teacher preparation programs, as well as alternative teacher certification programs, such as Teach for America, too, will have to adjust to the way they train teachers so they are prepared to teach the CCSS (McShane, 2014). Recent research, however, indicates that organizations may be a few years away from achieving this goal. A June 2013 report from the National Council on Teacher Quality (NCTQ) surveying approximately 1,100 colleges and universities concluded that only 11 percent of elementary programs and about one-third of high school programs appear to successfully prepare preservice teachers for the CCSS. Overall, in both instructional and

pedagogical matters there is strong indication that some states will have little trouble transitioning to the Common Core, but for others, there is still a long way to go.

Political Challenges. The CCSS initially emerged on politically untested—and thus unstable—ground, causing a growing number of educational policy experts to auger their impending difficulties jumping state and local political hurdles (Jochim, 2014). Importantly, the standards emerge in a period of increasing polarization of the political parties at the state and federal levels, leading to patterns of “fragmented federalism” hindering coherent policy adoption and implementation across public policy sectors, but particularly in education and health (Bowling & Pickerill, 2013). Several analyses point to the lack of input from state legislatures in the formation of the CCSS as particularly problematic for policy implementation (Jochim, 2014; McGuinn, 2014). For the most part, the standards were passed through state boards of education, which are appointed by the governor, and “politically insulated” in comparison to the re-election sensitive state lawmakers (Jochim, 2014, p. 187). A series of articles from *Education Week* spotlight the rising opposition to the CCSS among state legislatures—over the past year and a half, at least 10 states have enacted legislation that either bars or significantly sets back the standards-adoption process (Gewertz, 2014; Ujifusa 2014a, 2014b). According to a 2014 analysis conducted by the National Conference of State Legislatures, an organization that tracks state legislative trends, over 50 such bills have been introduced in 22 states. Notably, when bills did become law they were almost always in Republican-controlled states (Gewertz, 2014).

Indeed, opposition is still emerging, but analysis suggests many of those leading the charge are established interests aligned with traditionally conservative elements of the Republican Party, many of whom see the standards as the imposition of a “federal curriculum” and a threat to state autonomy and local control (McDonnell & Weatherford, 2013). At the same time, more nuanced arguments have emerged from all sides of the political spectrum. Some, for example, are concerned that the CCSS are a largely untested, “cookie cutter” curricular program that constricts academic content and pedagogical options, which will continue to emphasize a narrow focus on standardized testing (Ravitch, 2013; Tienken & Orlich, 2013). Still others are less concerned about the standards themselves, but rather, object to the prominent role that corporations and the education testing industry played in the creation of the standards and the way the standards have intersected with test-based accountability (Ravitch, 2014). To be sure, the CCSS presents a great number of challenges in the near future for educational systems; whether or not states and districts will have the political will and resource capacity to meet these needs, which experts predict will have to be substantial, remains to be seen (Jochim, 2014).

Review of Particular Reform Areas

Standard-based accountability systems are evolving to incorporate teacher evaluation, while market-based reforms, such as school choice, continue to expand and diversify. Given the prominence of both accountability and market-based solutions

in educational policy arenas, this section explores key themes in the research focused on these two particular reform areas.

Accountability and Teacher Evaluation

As the trends above indicate, test-based accountability policies have emerged as a central feature of educational systems where “student performance on standardized tests constitutes the core element of an elaborate system for judging schools and imposing rewards and sanctions on them” (McDonnell, 2013, p. 170). Evidence of this transformation is well documented (Goertz, 2009), and scholars now look to the next iteration of the “accountability generation” of policies (Mintrop & Sunderman, 2013)—teacher evaluation reforms—to understand how these multifaceted systems will continue to impact educational processes in the coming years. Indeed, a wealth of research has focused on the effects of school accountability—one of the major components of NCLB—on a range of educational outputs, such as school quality, student achievement, instruction resource allocation, teacher assignment, and instructional practice (e.g., Cohen-Vogel, 2011; Dee, Jacob, & Schwartz, 2013; Grissom, Kalogrides, & Loeb, 2013; Hanushek & Raymond, 2005; Jacob, 2005; Winters & Cowen, 2012). However, given the rapid expansion of teacher evaluation policies in recent years questions remain regarding how the evolution of teacher-based accountability structures, which differ in significant ways from NCLB school-based models, will reshape educational landscapes.

From School to Teacher Accountability. While teacher evaluation is hardly a new policy idea, the intense focus on holding teachers accountable for student outcomes is a distinguishing feature of contemporary “performance-based” systems (Hanushek, Lindseth, & Rebell, 2009; Lewis & Young, 2013). In part, this is a reflection of a much larger transition in the discourse of public management that occurred in the 1980s and 1990s that goes well beyond the educational sector, away from focusing on equitable outcomes and bureaucratic oversight in order to maximize goals of efficiency, reflecting a new “management culture that emphasizes the centrality of the citizen or consumer, as well as accountability for results” (Fusarelli & Fusarelli, 2014; Fusarelli & Johnson, 2004; Hood, 1991; Hursh, 2007; Manning, 2001, p. 299). In this context, many see teacher accountability as the “logical next step to school accountability” (Kelly, 2012, p. 13). With the growing accessibility of teacher-level data, the ability to link that data to student achievement data, and the development of sophisticated statistical models to make sense of that data, it would seem reasonable to hold teachers accountable for the learning that takes place in their classrooms. Well-crafted teacher evaluation systems are an integral part of this process, they must not only be able to accurately identify high- and low-performing teachers, but must also incorporate ongoing monitoring and feedback processes as tools for guiding professional developments and improving teacher effectiveness (Kelly, 2012; Michigan Council for Educator Effectiveness [MCEE], 2013).

Measuring Teacher Effectiveness. New teacher evaluation policies include explicit mandates for teacher quality measures to be linked with evidence of student learning,

and more specifically for that evidence to include “student growth and/or value-added data as the most critical part of the performance measure” (National Council on Teacher Quality [NCTQ], 2013, p. 73). Despite the flurry of educational studies on such “value-added models” (VAMs)—statistical strategies to isolate individual teacher contributions to student learning—in recent years, little about the impact of VAMs in practice, or to what extent they may help or hinder effective teaching practices is yet known (Corcoran & Goldhaber, 2013). Supporters argue that VAMs, which focus on student growth data, are a marked improvement on NCLB-era accountability programs, which were based on simple cross-sectional comparisons of student groups, often yielding inaccurate and misleading estimates of performance (Kelly, 2012). At the same time, VAMs have many of the same problems as cross-sectional studies, most prominently the simple inability of these models to eliminate all possible confounding variables, which include any other factors that may contribute to student achievement aside from the teacher (Braun, 2005; Rothstein, 2010).

At the same, VAMs remain a powerful analytical tool for gathering information about teachers and have become a “stepping stone in extending accountability practices to individual teachers’ classrooms” (Kelly, 2012, p. 13). Used in correspondence with other measures of teacher quality, such as principal observations, they may be useful for improving teacher performance. In fact, VAMs tend to correspond with principal ratings and other measures of effective teaching (Harris, Ingle, & Rutledge, 2014), indicating that VAMs, while not perfect, are picking up on “something.” Despite the extensive research on VAMs in recent years, as well as their popularity as a policy option, even the experts admit that we still know very little about the impact of VAMs in practice, or to what extent they may help or hinder effective teaching practices (Corcoran & Goldhaber, 2013). Even so, VAMs have captured the attention of players across the educational spectrum as states look for practical ways to implement statewide teacher accountability. Broad shifts in teacher policy away from focusing on professional training and development to focusing on measured outcomes, as well as from educator professionalism as the valued source of expertise to management and measurement as the defining element of expertise bolster the popularity of VAMs as a policy option, although many experts now think VAMs may be limited to being descriptive measures of teacher effects, and warn against using VAM-based systems for making high-stakes decisions (Harris, 2009; Konstantopoulos, 2012).

Instead, consensus is migrating toward a “balanced assessment” approach in which student growth models will continue to play a major role in evaluating teachers, but are accompanied by a host of other measures of teacher quality—in other words a “multiple measures” approach. Multiple measures, including principal and peer observations, student surveys, and even video monitoring, have become an important feature of teacher evaluation systems across the United States. According to the 2014 NCTQ report, nearly all states require classroom observations as a major component of teacher evaluation, and 15 of those require multiple observations for all teachers. In these systems, VAMs still may remain a powerful analytical tool for gathering information about teachers—used in correspondence with other measures

of teacher quality, such as principal observations, they may be useful for improving teacher performance.

Improving Overall Teacher Quality. Recent teacher evaluation research shows that evaluations may be used to improve teacher quality by, for example: integrating teacher preparation with teacher evaluation standards (Thorn & Harris, 2013); incorporating regular monitoring and feedback of teacher performance into evaluations (MCEE, 2013), particularly for novice teachers (Youngs, 2013); and for improving the efficient allocation of instructional resources. Linking measures of teacher effectiveness to professional licenses, for example, may better help localities manage their teacher markets, particularly in areas with high turnover. Thus, teacher effectiveness ratings may eventually be specified to include meaningful indicators of different levels of effectiveness in different areas, as well as more specific subject, grade, or subgroup (i.e., English Language Learner [ELL], special needs, etc.) specializations in ways that maximize building-level resources and accelerate student learning (Kelly, 2012).

Finally, current research articulates the clear potential for teacher accountability programs to reward effective teachers. Although the challenges inherent in measuring teacher effectiveness are present in any such incentive-based system, many are hopeful that this strategy may be useful in some situations, particularly for high-needs districts and schools—as teacher accountability emphasizes student growth over average scores (as past accountability programs have done) they may be especially well equipped to reward highly effective teachers in low-performing schools (Kelly, 2012). In the end, while theoretically promising, current literature on merit-based pay in educational contexts has produced mixed results (Neal, 2011; Springer et al., 2010). Moving forward into the future, teacher evaluation research will likely continue to delve more deeply into how evaluation systems may be used to improve teacher quality at both an individual level by heavily investing in instructional supports, as well as from an administrative standpoint by giving leaders better information for making important decisions about teacher assignments, teacher tenure, and other resource allocations related to teaching and instruction.

Market-Based Reforms

Market-based reforms have spread throughout the country, typically as programs that provide alternatives to the neighborhood-based assignment of students to a public school. Advocates of these policies, which include vouchers, charter schools, magnet schools, and open enrollment, argue that the traditional public school system stifles innovation and competition, providing no incentives for schools to improve, and ultimately serves the interests of powerful teachers' unions and educational bureaucrats rather than parents and students (Chubb & Moe, 1990). These supporters also claim that school choice programs will give disadvantaged, geographically isolated students access to better educational opportunities by allowing them to leave underperforming and unsafe schools. Affluent students have always had this advantage because they have the resources to enter the private schooling sector,

allowing them to opt out of poor neighborhood schools. Choice programs, argue advocates, should give the same opportunity to poorer students (Hoxby, 2003).

While early forms of school choice—namely, magnet schools, which target racial and/or socioeconomic integration—enjoyed some limited success in 1970s and 1980s, the advent of charter school policy with its broad bi-partisan support during the 1990s catapulted choice onto the educational agenda at all levels of government. The charter school movement has grown to over 6,000 schools serving 2.3 million students across 42 states (National Alliance for Public Charter Schools [NAPCS], 2014). Urban districts, in particular, have many large, longstanding charter school sectors that continue to attract new operators and students, with an average yearly growth rate of roughly 7 percent nationwide (NAPCS, 2014). Meanwhile, school vouchers and more recently tuition tax credits, sometimes referred to as “neovouchers,” have breathed new life into private school choice programs, where state and/or local governments support student attendance at private schools using public resources. These are distinct from public school choice programs, like charter schools, which also receive public funds but ultimately remain under the control of the state and accountable to public authorities (Council of Chief State School Officers [CCSSO], 2013). Magnet schools, which continue to operate with similar goals to their predecessors and open enrollment, where students are able to enroll in districts within their state other than their community schools, represent to the other two major forms of public school choice. Several themes are emerging in current school choice scholarship, including the increasing concern with student services and the focus on new, developing school choice markets.

Serving Students with Special Needs. Contemporary school choice programs now operate in an established infrastructure that is integrated with traditional forms of schooling. Consequently, recent choice research is not only interested in the relative success of choice programs vis-à-vis their public school counterparts (although this is certainly still a major endeavor), but also the broad impacts of choice sectors on public school systems, students, and families. Given their comparatively large share of the educational marketplace, this body of work is mostly focused on charter school impacts. Researchers are raising a multitude of important questions related to the systemic effects of charter schools and much of this work converges around the issue of whether students with particular needs are served in choice programs.

To start, there is growing concern regarding the exclusionary practices of charter schools for students with special learning needs, particularly students with disabilities and ELLs. Among other things, schools may be reluctant to enroll such “high-needs” students because they are more costly and difficult to educate. In addition, schools may be worried about these subgroups’ effects on accountability-related outcomes (i.e., test scores, sanctions, teacher evaluation, etc.) as both ELLs and special education students tend to perform worse on standardized tests than their peers (Abedi, 2004; Ni, 2012). Research shows special education and language-minority students are underrepresented in charter schools, except when schools target these groups specifically. Several recent studies have found that students with special education status are much less likely to enroll in schools of choice/charter schools than

their general education counterparts (Ni, 2012; Scott, 2012), echoing the results of prior research on this issue (see, e.g., Arsen & Ray, 2004). There is similar evidence of sorting of ELLs across schools. Recent studies found ELLs to be significantly underrepresented in charter schools within several urban areas as well as nationwide samples (Frankenberg, Siegel-Hawley, & Wang, 2011; Jacobs, 2013; Multicultural Education and Training Association [META], 2009; Sattin-Bajaj & Suarez-Orozco, 2012).

Program Diversification. Burch (2010) observes the shifting narrative of school choice policies over the past decade in the context of contemporary federal reform efforts: “Before NCLB, much policy talk was organized around the question of whether we ought to increase private engagement in the design and delivery of educational services. . . [Now] conversation has shifted to how districts should organize and coordinate the engagement of private firms in the operation and management of public schools” (p. 256). Two emerging forms of choice—tuition tax credits and virtual charter schools—represent a diversifying choice sector, as well as shifting educational norms that more readily embrace the privatization of educational services.

Shifting patterns in private school choice programs, which school vouchers have traditionally represented, but in the past few years have grown to include tuition tax credits, or “neovouchers,” has been noted in recent educational research. Unlike conventional voucher plans, such as those in Cleveland and Milwaukee, which reallocate funds directly to private schools, neovouchers programs add intermediary steps to the funding process by creating, “a tax credit mechanism that allows those that owe state taxes to reallocate some of that money from the state general fund to a ‘scholarship-granting’ organization” (Welner, 2008, p. 6). In Florida, for example, the recently enacted Florida Tax Credit Scholarship Program offers scholarships to eligible low-income students to attend private schools; eight other states also have neovouchers programs focused on low- and middle-income students, while Arizona and Georgia have more expansive programs targeting all public school students (CCSSO, 2013). Emerging analysis of the Florida program suggests these reforms may lead to more competitive private school markets and higher test scores (Figlio & Hart, 2010).

Intermediary nonprofit organizations play a critical role in the creation of these scholarship grants by allowing private corporations and individuals to donate money in exchange for a tax credit, which is then administered to families and students for private and parochial school tuition. Effectively, these systems keep the state from directly paying for private schools—one of the major political drawbacks of regular vouchers—but still result in the government footing the bill through directly foregone tax revenues (Welner, 2008). While these programs still only serve a fraction of a percentage of public school students, they are the fastest growing form of private school choice, and becoming rapidly more popular than conventional vouchers. In a 2012 analysis of school choice, researchers found that neovoucher use now outpaces conventional voucher use by almost a two to one ratio—with over 120,000 students using neovouchers in 2011 in comparison to only 70,000 students using regular vouchers (Miron, Welner, Hinchey, & Mathis, 2012).

Next, at the nexus of digital learning and school choice new technologies and a receptive political/policy environment have opened the doors for radically new educational arrangements, where teaching and learning occurs mainly in virtual spaces instead of traditional brick-and-mortar schools. These “virtual charter schools” generally follow the same rules and regulations as other charter schools, but deliver all of their courses online (Griffith, 2014). Virtual charter schools can be seen as a small, but growing part of the state charter school movement, as well as an important institution vehicle for implementing digital and distance/online learning programs (Huerta, D’Entremont, & Gonzalez, 2009). According to the National Alliance for Public Charter Schools (2014), enrollment in virtual charter schools has grown to more than 310,000 students in 30 states, accounting for close to 1 percent of student enrollment in these 30 states. While these patterns are noteworthy, virtual charter schools continue to face many barriers to expansion, particularly funding. These schools have unique characteristics, such as unlimited school size and enrollment borders, that make them very difficult to finance using traditional funding, as well as hold them accountable for student performance (Griffith, 2014). These concerns appear well founded. One study showed that students enrolled at virtual schools were falling behind their public school counterparts in both reading and math. Virtual school students were also more likely to transfer in the middle of year and have lower graduation rates than other public schools (Miron & Urshel, 2012). A 2011 report of Pennsylvania’s charter schools corroborates these findings, showing that students in virtual charter schools have significantly smaller academic gains than those of their traditional public school peers (Center for Research on Education Outcomes [CREDO], 2011).

Research Utilization in Educational Policy

Another major topic of interest in current educational scholarship is research utilization: the growing place of research and evidence in educational policy arenas, as well as some of the key work emerging on evidence-based policymaking in local, state, and federal contexts. Two themes from recent scholarship are apparent: (1) the growing importance of IOs in promoting and filtering educational research, and (2) the analysis of informational pathways, or “knowledge flow,” through which research is mediated in educational policy settings.

Evidence-Based Policymaking

Over that past decade, numerous federal and state policies have explicitly promoted the use of data, research, and other forms of evidence in educational systems, placing a significant premium on what we refer to as “evidence-based decision-making” (Honig & Venkateswaran, 2012, p. 199).¹ Significantly, current federal accountability policy requires the use of research-based evidence for school improvement efforts. Most private funders too, foundations and philanthropies, also mandate “research-based” interventions and will threaten to pull funding if results

cannot be “proven” quickly enough (Lubienski, Scott, & Debray, 2014). There are concerns on both the “delivery” and “demand” sides of educational research use. In a study of three local school boards in Wisconsin, for example, researchers observed that little, if any, critical thinking or scrutiny took place around research findings; meeting participants often made general and specific references to research, but these comments were frequently glancing and vague. The authors also found that previously held policy-related assumptions and beliefs determined how research evidence was processed and interpreted during deliberations by the meeting participants (Asen, Gurke, Conners, Solomon, & Gumm, 2012). In a similar fashion, an in-depth study of a local research organization showed that research evidence was “framed” in order to deliver particular messages about leadership and teaching—namely, that educational management should focus on the routine collecting and analyzing of, “quantitative data to measure, monitor, plan, and evaluate performance” (Trujillo, 2014, p. 215).

These and other recent studies on research utilization raise concerns about the perfunctory and passive consumption of research in deliberative policy arenas, while also highlighting the important role of “sense-making” (see Coburn & Russell, 2008), the process by which educational leaders filter, comprehend, and form meaning around new policy, for the consumption of educational information and research evidence. Indeed, studies indicate research use is embedded in a dynamic, social web of actors and organizations with diverse, and sometimes conflicting, agendas. In addition, research evidence and educational data use between various levels of the educational system is often brokered through intermediaries—a trend that had accelerated rapidly in recent years. Generally styled as “school reform” organizations, their assistance is often aligned with current federal accountability policies and is targeted toward struggling schools and districts (Burch, 2009; Trujillo & Woulfin, 2014).

Intermediary Organizations. Lubienski et al. (2014) observe that the increasing application of research evidence in educational policy contexts has opened the door for new IOs to influence policy trajectories: “One way that institutions and sectors deal with shifts in the production and consumption of information is to create new organizations that mediate the process” (p. 137). Scott, Lubienski, DeBray, and Jabbar (2014) examine the activities around school district efforts at reform, analyzing the role of IOs in promoting “incentivist” educational policies, such as merit pay for teachers and charter schools. The authors find that IOs play a critical role in brokering key research findings and policy reports in ways that filter out policies they oppose, while casting their preferred policy options in a positive light. In this way, IOs are able to leverage their position of “expertise” within district reform networks in order to influence the policy agenda. Local IOs in New Orleans, for example, have tended to have low research capacity, strong policy preferences for or against charter schools, and have relied on external national coalitions and local networks for policy advice and technical expertise (DeBray, Scott, Lubienski, & Jabbar, 2014).

As IOs in educational research production and advocacy, foundations and philanthropies are growing in influence. Scott and Jabbar (2014) argue that foundations wield a great deal of influence over policy trajectories by occupying a central “hub”

position to other IO “spokes,” which allows them to apprehend informational flows in ways that support their policy agendas. Other work supports this conceptual framework. In an extensive multiyear study of educational foundations in Los Angeles and New York City, Reckhow (2013) finds that foundations are central players in both districts. As IOs, social network analysis revealed foundations were part of an “informational core” of actors that most frequently exchange policy information, including data and research, as well as grassroots knowledge about community needs. Importantly, Reckhow (2013) notes that a monopoly on data and research at “the core” by foundation-supported nonprofit research organizations can lead to a noninclusive policy process, where community stakeholders are disenfranchised from educational reform efforts.

Information Brokering and Knowledge Flow. Policy-related information, including research evidence, is rarely produced or consumed in a linear fashion, but instead is a result of the social ecology and interactions of a wide array of actors occurring within a particular institutional/organizational context (Tseng, 2012). Social networks and informal pathways are particularly important for the efficient flow of policy knowledge, practices and strategies, or policy “know how” (Finnegan, Daly, & Che, 2013; Frank & Penuel, 2015; Nutley, Walter, & Davies 2003). Importantly, high levels of trust and opportunities for social interaction are critical aspects of successful school reform (Bryk & Schneider, 2002), as well as an important part of research utilization for school improvement at all levels of educational governance. At the local level, the formal and informal organizational structures between educational leaders (district officials and principals) contribute to the flow of research evidence within school districts (Honig & Venkateswaran, 2012; Honig, Venkateswaran, McNeil, and Twitchell, 2014), as well as between district central offices and school buildings (Daly, Finnegan, Jordan, Moolenaar, & Che, 2014; Daly, Finnegan, Moolenaar, & Che, 2014). Problematically, underperforming schools—presumably the most in need of reform-related knowledge and well-researched solutions—may be the least likely to share information related to research as well as be connected to external educational information networks (Daly & Finnegan, 2012). In these contexts, individuals that “broker” information, or in network terms, fill the “structural holes” (Burt, 2001), between district officials and school building leaders are critical for sharing evidence and advice related to data use.

Local and State Capacity Building

The next few years represent a critical time for educational systems as states transition to new and evolving policy regimes that include the implementation of the CCSS, new teacher evaluation systems, and expanding school choice markets. In light of the ongoing whirlwind of educational reform, the final section of this article considers recent research on local and state capacity building to meet current policy demands. Significantly, a number of scholars have articulated the past failure of recent reforms to, “tighten linkages among curriculum and instructional materials,

teacher training, and assessments in the standard-based accountability ideal” (Goertz, 2009; McDonnell, 2013, p. 183; Ravitch, 2010).

Local Context

Schools exist in a complex social and organizational environment where a host of outside factors influence teaching and learning processes. This is particularly true of students’ socioeconomic backgrounds, where race/ethnicity, income level, family characteristics, and peer and/or neighborhood attributes—to name a few—are all closely correlated with educational outcomes. While a full overview of the contemporary social context of schooling lies well beyond the scope of this essay, this qualification is critically important in a performance-based accountability system because most schools, high or low performing, reflect the composition of their students. Despite the intention to reward schools that work against the association between achievement and socioeconomic status, many worry that performance-based systems actually reward high-performing schools for the existing social capital of their students and their families, while low-performing schools are left to rely on their organizational capacity—thus, without investing in capacity low-performing schools may get worse relative to high-performing schools (Elmore, 2002).²

In this vein, segregation by race/ethnicity and class continues to play an important role in sorting students into public schools leading to vastly different school contexts. It is not uncommon for students to attend schools that are racially and economically isolated with little to no diversity in the student population along either dimension. Segregation is a difficult issue, however, because, for the most part, school segregation is a reflection of much broader trends in residential segregation related to household income and, therefore, well beyond the direct control of educational authorities (Frankenberg, 2013; Reardon & Yun, 2005). In addition, the wide variation in local/school context is also a reflection of a historically devolved system—what McGuinn (2012, p. 140) calls the “50/14,000/130,000 problem in American education reform”—in reference to the difficulty of implementing coherent reform among 50 distinct state educational systems with roughly 14,000 school districts containing almost 130,000 schools. No matter how clear federal goals are, the United States still lacks a national system of education to pursue those goals. In the end, states retain the primary Constitutional authority over educational systems, as well as most of the financial responsibility for funding reform efforts (Cooper & Fusarelli, 2009). Thus, wide variation in school quality exists state to state, between and even within districts.

Instructional Capacity. Current research suggests there are widening gaps in student achievement between states, as well as increases in what Elmore (2002) calls “the capacity gap”—referring to states’ varying abilities to monitor reform efforts and provide technical assistance to local school districts (Chubb & Clark, 2013; Kober & Renter, 2011; McGuinn, 2012). Many states are concerned about being able to provide the instructional resources and technical expertise to support the impending implementation of the CCSS. Some studies, for example, suggest that CCSS text

complexity standards for elementary-aged students are “aspirational,” and warn that student literacy development, motivation, and engagement, particularly in the primary grades, may suffer as a result. The authors also worry about the effects of such high demands in already “failing schools,” which are likely to see even further dips in test scores, and what impact this, in turn, could have on teacher feelings of efficacy and teacher attrition (Hiebert & Mesmer, 2013). Teacher attrition is a major issue for underperforming schools and districts, and past research has linked poor test performance to low levels of teacher satisfaction and teacher retention (e.g., Olsen & Sexton, 2009).

Conversely, a number of scholars have articulated the great potential of the CCSS. Despite the challenges discussed above, there is evidence that the implementation of the CCSS has opened the door for unique collaborations and alignments of policy and practice—an ideal that has eluded educational policymakers for many years (Youngs, 2013). For example, the simultaneous implementation of the CCSS and new teacher evaluation policies may reduce uncertainty in the evaluation process by giving teachers a clearer message about what their students are expected to learn, as well as more confidence that state assessments used to create performance measures are actually aligned with what they are teaching. Advocates also argue that the national scope of the standards presents an opportunity to share resources, while also cutting down on instructional expenses. The rapidly growing education technology market, for example, allows teachers to access a large and diverse group of providers for relatively little cost (McShane, 2014). From a capacity standpoint, there is evidence that the CCSS have also helped policymakers and educational leaders realize the substantial instructional assistance needed for teachers to be effective in standards-based accountability contexts, such as lesson materials, teacher training, and curriculums aligned with assessments (McDonnell & Weatherford, 2013)—a feature conspicuously missing from previous accountability efforts (Ravitch, 2010).

Data System Capacity. One major consequence of 30 years of test-based accountability is the unprecedented amount of information now available to evaluate students, teachers, and schools. States, in particular have played a pivotal role in the production of performance data through the creation and maintenance of statewide student information systems (SSIS): “SISS represent the main arteries of the information infrastructure of test-based accountability. They track the progress of individual students across the K–12 system, through college and beyond.” (Anagnostopoulos & Bautista-Guerra, 2013). At the same time, states still rely heavily on local intermediaries to put into place the personnel and technologies needed to gather and report the information required to meet state and federal accountability requirements. Consistent with other evidence discussed above, state and local capacities to fulfill data-based needs still vary considerably (Anagnostopoulos, Rutledge, & Bali, 2013). A small number of states have taken the meaningful steps in better equalizing and systematizing data systems for local use, emphasizing the vital “nuts and bolts” of these systems, such as adequate teacher of record definition, a strong teacher verification process, and an ability to connect students to more than one teacher (NCTQ, 2013, p. 11).

Gaps and Future Research

In this article, I have reviewed current trends in education policy research. I have targeted recent publications in education policy and politics related to new forms of governance and institutional arrangements, major contemporary reform efforts, research utilization, and local/state capacity issues. Looking across the various education policies addressed in this review and the associated recent research, several key themes emerge. One of the major themes is the involvement of many new and influential actors, public and private, in education policy arenas. The current research represents a substantial start to understanding how these entities have integrated into the existing educational infrastructure, but there is still much work to be done in this area.

Foundation involvement in educational enterprise is particularly notable. Recent findings indicate that foundations and other private nonprofit and for-profit organizations, such as think tanks and charter management organizations, have significant influence over the educational policy agenda, particularly as brokers of policy information and research (DeBray et al., 2014; Reckhow, 2013; McDonald, 2013). Much of this scholarship, however, is limited to studies of urban school systems and more general narratives set at the macro/national level. We still know very little about the internal processes of these organizations, how they set their political agendas, or what education policy venues they target and why. Moreover, there is very little empirical evidence or data on foundations and other nonprofit and for-profit policy activity. This lack of evidence also brings into stark relief the larger concern that these organizations are often neither transparent nor accountable to the educational community or general public. The next wave of research in this area may consider focusing on more rigorous applications of existing interest group and advocacy coalition theories to understand how foundations and other private organizations influence education policy and politics. This inquiry should also be extended to investigate how these organizations influence policy implementation processes and the micropolitics of districts and schools.

More public actors too, such as mayors and state governments, that have not traditionally been involved in education policy, are now major players, although their influence varies widely depending on state and local contexts. This shift has not gone unnoticed by the research community but new and existing forms of local centralization need more scholarly attention. The literature on mayor-led districts is robust, but needs to be updated. Despite the popularity of mayoral governance as a structural reform in the past two decades, with the exception of a few notable pieces (see Wong & Shen, 2013) not much has been written on this topic recently. Meanwhile, there is a gap in the literature on other forms of local centralization, such as districts run by emergency managers, state-led district takeovers, and state-run turnaround districts.

Another major theme in the literature is the shifting roles of traditional educational interests in the new policy landscape. The evolving role of teachers' unions is particularly fascinating and presents an important avenue for future research. Teachers' unions as the traditional political muscle of key educational stakeholders must

adapt to the current policy climate, but it is unclear what their new role(s) may be. To be sure, large-scale federal and state reforms—standards-based accountability, teacher evaluation systems, and market-based policies, to name a few—have undermined the strength of teachers' unions, but they retain legitimacy and a strong constituency. Research shows that unions had adapted in various ways: reacting defensively, working in collaboration with reformers, and developing their own reform agendas (Bascia & Osmond, 2012). Over the next few years, policy scholars should pay close attention to how teachers' unions and possibly other forms of teacher-led collective action develop. Researchers should also begin to investigate the broader educational and structural consequences of such a significant reshuffling and reorganization of teachers' unions.

This review also points to several areas in need of further inquiry when it comes to major reform efforts underway in educational settings. Recent school choice research has focused on the effects of charter schools on broad patterns of student sorting, and has begun to investigate new kinds of public and private school choice. Given the expansion of charter schools, researchers should continue to question their system-wide impacts on local educational infrastructures and patterns of student mobility. Meanwhile, much more research is needed on emerging forms of school choice, especially virtual charter schools and neovouchers given their growing popularity as policy options.

This review demonstrates that state standards-based accountability systems are now incorporating teacher evaluation policies, albeit to widely varying degrees and with mixed results. While value-added policies (VAMs) that evaluate teachers based on student test scores are in vogue, consensus is migrating towards a "balanced assessment" approach where VAM scores are used in concert with other measures of teacher quality. Research in this area should follow suit. Scholarship is already moving in this direction, but more information is needed on the effectiveness of evaluation models that use multiple measures of teacher quality, as well as how new evaluation systems can be used to improve teachers' instructional practices. In addition, researchers should pay more attention to other factors beyond teacher quality that affect student outcomes in the context of contemporary evaluation systems, including principal quality, school organization, and district processes.

Finally, there is a clear theme of increased data and research use in educational settings. Current research has begun to explore this trend and its impact on educational processes, answering some questions, but raising many more—particularly the ability of state and local educational authorities to meet the new data demands. Importantly, the increased demand for research evidence and data-driven decision making coincides with a shifting policy environment that now often includes the implementation of the CCSS and the introduction of teacher evaluation policies. These policy demands will place a heavy burden on state and local educational systems in the coming years and researchers should play close attention to their combined and overlapping impacts on schools and students. Overall, scholarly research is working hard to keep pace with the rapidly shifting world of education policy and politics. While not a complete review of the literature on K–12 education policy, this review synthesizes some of the major themes in current research, and highlights

scholars that have attempted to address ongoing challenges confronted by researchers and policymakers in contemporary educational contexts.

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Notes

1. This trend may also be associated with the generally increasing popularity of randomized control trials of public policies.
2. Notably, there is a rich literature on grassroots politics and parent engagement in school reform and the transformative power of community organizing in the struggle for educational equality that went beyond the scope of this review (for recent work on this topic, please see Warren & Mapp, 2011; Hong, 2011).

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Down the Line: Assessing the Trajectory of Energy Policy Research Development

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In light of the impassioned debate regarding various aspects of global climate change, as well as the demand for reliable energy supply for swift economic recovery and stable economic growth in recent years, contemporary policy research on issues concerning energy and natural resources has gained more traction than at any other time in recent history. In this article, we attempt to characterize the recent trends of such research endeavors while reviewing related articles published in major scholarly journals in public policy and related fields of study between 2010 and early 2014. We found that the subtleties of recent energy policy studies revolve around issues pertaining to nuclear energy, energy efficiency, renewable energy, and hydraulic fracturing operations, while such studies use diverse theoretical and methodological approaches in analyzing various facets of energy policy process ranging from issue framing and agenda setting, to policy formulation and diffusion, to policy evaluation and feasibility assessment. We conclude this article by discussing future research directions of energy policy issues.

KEY WORDS: energy policy, nuclear energy, energy efficiency, renewable energy, hydraulic fracturing

Introduction

In light of the impassioned debate regarding various aspects of global climate change, as well as the demand for reliable energy supply for swift economic recovery and stable economic growth in recent years, contemporary policy research on issues concerning energy and natural resources has gained more traction than at any other time in recent history. Over time, energy and natural resources have been thought of as both sources of economic opportunity and concerns for socioeconomic and ecological sustainability. As such, there are certain trade-offs related with extracting and using natural resources in the process of producing energy for the welfare of society. The work of achieving balance between these trade-offs makes this an intriguing domain of policy research, as such policies concurrently support the use of natural resources while pushing for alternatives to keep up with societal energy demand while mitigating its negative externalities.

One of the important questions to be answered, in this regard, is how we, as policy scholars, have responded to this policy issue of vast ramifications and what kind of advice we are prepared to offer to society for an improved future. In answering this question in this article, we attempt to characterize the recent trend of research endeavors while reviewing a total of 44 relevant research articles published in major scholarly journals¹ in public policy and related fields of study² between 2010 and early 2014 as well as some important technical reports dealing with energy policy issues. More specifically, as presented in Table 1, previous studies we examined came from the following list of journals³: *Ecological Economics* (1), *Energy Policy* (2), *Environment* (1), *Environmental Politics* (1), *Journal of Policy Analysis and Management* (1), *Policy Sciences* (1), *Policy Studies Journal* (2), *Polity* (1), *Proceeding of the National Academy of Sciences* (1), *Public Administration* (1), *Publius* (1), *Review of Policy Research* (8), *Risk, Hazards, & Crisis in Public Policy* (15), *Technological Forecasting and Social Change* (1), *The Energy Journal* (1), and *Wiley Interdisciplinary Reviews: Energy and Environment* (3). The geographical focus of reviewed studies ranges from United States (30 articles) to Europe (9 articles) to Canada (1 article) while four studies discuss energy issues on a global scale.⁴

The major topic areas that were addressed in the reviewed articles and reports, which comprise our primary concern in this research, are nuclear energy (17 articles), energy efficiency (9 articles), renewable energy (9 articles), and hydraulic fracturing operations (10 articles). Because of the complexities, risks, and challenges associated with the topic of nuclear energy, a number of articles were selected from *Risk, Hazards, & Crisis in Public Policy* to provide a comprehensive perspective on issues related to this energy source. Articles reviewed for the energy efficiency and renewable energy sections focus on specific policy options in some cases; however, most of the articles were summative in nature and are used as reference for providing the landscape of knowledge and research. Hydraulic fracturing is an emerging issue and the articles reviewed represent a significant sampling of current research efforts. In the sections that follow, we elaborate on our findings that the subtleties of the recent energy policy studies revolve around issues pertaining to nuclear energy, energy efficiency, renewable energy, and hydraulic fracturing operations, while such studies use diverse theoretical and methodological approaches in analyzing various facets of the energy policy process ranging from issue framing and agenda setting, to policy formulation and diffusion, to policy evaluation and feasibility assessment. We conclude this article by discussing future research directions of energy policy issues.

Nuclear Energy

Over the past 5 years, research in energy policy has markedly focused on issues surrounding the use of nuclear energy, which is evidenced by the fact that over half of the articles reviewed here focus on research and observations related to nuclear energy. On a global scale, violent outbreaks and natural disasters derived from global climate change often occur to the vulnerable global energy infrastructure, threatening a secure energy supply (Giroux, 2010). Further complications relating to the recent trend of the nationalization of energy assets and growing energy

Table 1. A List of Reviewed Articles and Technical Reports

Author(s)/Year	Journal Title	Topic Category	Geographical Focus
Arnold and Holahan 2014	<i>Publius</i>	Hydraulic fracturing	USA
Attari et al., 2010	<i>Proceeding of the National Academy of Sciences</i>	Energy efficiency	USA
Bonano et al., 2011	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	USA
Boudet et al., 2014	<i>Review of Policy Research</i>	Hydraulic fracturing	USA
Brown, 2014	<i>Wiley Interdisciplinary Reviews: Energy and Environment</i>	Energy efficiency	Global
Butler et al., 2011	<i>Environment</i>	Nuclear energy	Global
Carley, 2011	<i>Review of Policy Research</i>	Renewable energy	USA
Carley, 2012	<i>Journal of Policy Analysis and Management</i>	Energy efficiency	USA
Carley and Miller, 2012	<i>Policy Studies Journal</i>	Renewable energy/ energy efficiency	USA
Carley and Browne, 2013	<i>Wiley Interdisciplinary Reviews: Energy and Environment</i>	Renewable energy	USA
Carter and Jacobs, 2014	<i>Public Administration</i>	Energy efficiency	Europe
Considine et al., 2010	Technical report ^a	Hydraulic fracturing	USA
Darst and Dawson, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	Europe
Davis, 2012	<i>Review of Policy Research</i>	Hydraulic fracturing	USA
Davis and Fisk, 2014	<i>Review of Policy Research</i>	Hydraulic fracturing	USA
Drottz-Sjoberg, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	Europe
Duffy, 2011	<i>Environmental Politics</i>	Nuclear energy	USA
Elgin and Weible, 2013	<i>Review of Policy Research</i>	Energy efficiency	USA
Eyles and Fried, 2012	<i>Risk, Hazards & Crisis in Public Policy</i>	Energy efficiency	Canada
Filippini and Hunt, 2010	<i>The Energy Journal</i>	Energy efficiency	Global
Fischlein and Smith, 2013	<i>Policy Sciences</i>	Renewable energy	USA
Fisk, 2013	<i>Review of Policy Research</i>	Hydraulic fracturing	USA
Foulds and Powell, 2014	<i>Energy Policy</i>	Energy efficiency	Europe
Giroux, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Energy security	USA
Heffron, 2013	<i>Technological Forecasting and Social Change</i>	Nuclear energy	USA
Heikkila et al., 2014	<i>Review of Policy Research</i>	Hydraulic fracturing	USA
Hogselius, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	Europe
Hohmeyer and Bohm, 2014	<i>Wiley Interdisciplinary Reviews: Energy and Environment</i>	Renewable energy	Europe
Jenkins-Smith and Trouset, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	Global
Keith et al., 2012	Technical report ^a	Renewable energy/ nuclear energy	USA
Kinnaman, 2011	<i>Ecological Economics</i>	Hydraulic fracturing	USA
Kraft, 2013	<i>Polity</i>	Nuclear energy	USA
Laes and Schroder, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	USA
Langlet, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	Europe
Lehtonen, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	Europe
Liang and Fiorino, 2013	<i>Policy Studies Journal</i>	Renewable energy	USA
Litmanen et al., 2012	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	Europe

Table 1. cont.

Author(s)/Year	Journal Title	Topic Category	Geographical Focus
Poetz, 2011	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	USA
Rabe and Borick, 2013	<i>Review of Policy Research</i>	Hydraulic fracturing	USA
Rinfret et al., 2014	<i>Review of Policy Research</i>	Hydraulic fracturing	USA
Schelly, 2014	<i>Energy Policy</i>	Renewable energy	USA
Solomon et al., 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	USA
Sundqvist and Elam, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Nuclear energy	USA
Wiener and Koontz, 2010	<i>Risk, Hazards & Crisis in Public Policy</i>	Renewable energy	USA

^aIndicates nonpeer reviewed technical reports (e.g., policy report, impact assessment, and feasibility assessment) authored by energy policy researchers.

interdependence among nations, requires complex policies to secure energy for an increasing demand (Giroux, 2010).

Global response to nuclear energy expansion has been broadly related to concerns regarding energy security and climate change. The tragic events of March 2011 in Fukushima, Japan, shifted public concern to issues of safety, justice, and ethics (Butler, Parkhill, & Pidgeon, 2011) even while advances in used nuclear fuel (UNF) management practices, as exemplified by the cases in Sweden and Finland, hint at a technological and sociopolitical solution to the safe, permanent, and locally acceptable disposal of used high-level radioactive nuclear materials. Such advances could arguably function to sustain nuclear energy as a plausible energy alternative in the United States (Darst & Dawson, 2010) but recent abandonment of the Yucca Mountain waste repository site by the Obama administration reflects existing concerns associated with the future of nuclear energy (Kraft, 2013). For countries experiencing high socioeconomic growth, nuclear energy can function to meet energy demands, but radioactive waste is still a significant source of negative public opinion. In the United States specifically, uncertainty in the legal structure of the nuclear industry and state-level electricity-sector deregulation (Heffron, 2013), public concerns over environmental contamination, and low confidence in reactor safety complicate any chances for a nuclear revival (Duffy, 2011).

Nuclear energy is created via exothermic (energy releasing) nuclear processes that generate heat and/or electricity. While nuclear fusion, fission, or decay are viable approaches for attaining energy, UNF is a byproduct that some believe to be harmful to the environment and humans if not maintained and stored safely. The evolution of UNF management has focused attention on risk perceptions; the stigma of radioactive materials; and finally, the role of public trust to attempt to understand failure in siting repositories and an ongoing political stalemate surrounding the disposal of UNF (Solomon, Andren, & Strandberg, 2010).

While the evolution of policies regarding UNF management in the United States and Northern Europe has been characterized by cautious optimism, it has been noted that specific opposition to nuclear power has evolved to focus on the “back

end of the nuclear fuel cycle”—considerations for storage of “dangerous” used radioactive materials (Jenkins-Smith & Trouset, 2010, p. 5). The issues concerning UNF storage are best understood by multidisciplinary approaches encompassing techno-scientific, sociotechnical, sociopsychological, and sociopolitical perspectives (Jenkins-Smith & Trouset, 2010; Litmanen, Kojo, & Nurmi, 2012). Policy debate dealing with UNF has also shifted from being a problem rooted in “scientific knowledge in nuclear physics and chemistry” to one of “engineering craftsmanship and social planning” (Jenkins-Smith & Trouset, 2010, p. 7). The “co-evolution of technology and public opinion” is interdependent (Litmanen et al., 2012, p. 99) and successful technical solutions for the management of UNF are dependent on recognizing the “interconnectedness of human behavior to technological devices” (Langlet, 2010, p. 90).

As such, the political environment holds a profound influence on UNF management practices. Historical analysis of the Soviet Union’s nuclear fuel system, which produced both military and civilian products, illustrates how changes to the political environment can impact decisions about the future handling of UNF (Hogselius, 2010) and the undesirable consequences of expanding nuclear power with “no clear strategies for direct disposal” (Jenkins-Smith & Trouset, 2010, p. 8). The governance of technological advancements in nuclear energy has taken a “participatory turn” with the intention of gaining greater public involvement in the process while attempting to earn public acceptance for nuclear energy expansion (Sundqvist & Elam, 2010, p. 205). Sundqvist and Elam (2010, p. 205) critically examine the “democratization of expertise” in Europe and suggest that the overly procedural approach to this policy shift may prevent legitimate public concerns from being acknowledged. They further assert that allowing the process to circumvent public concerns actually functions to erode public confidence and trust in experts and political authorities, but that attention to the issue formation process could advance genuine participation.

Research to identify public concerns associated with UNF reveals complex processes at work. Risks tend to be evaluated by individuals based on potential hazards posed not only to themselves and their communities but also to future generations (Drottz-Sjöberg, 2010), and past experiences can have a profound impact on public acceptance of future nuclear policy (Laes & Schroder, 2010). Facilitated engagement of multiple stakeholders prior to public discussions may provide a better understanding of perceived risks and inform more comprehensive nuclear energy policy (Poetz, 2011). An examination of policymaking processes in some European Union countries suggests that “opening up” policy choices, encouraging the use of participatory methods and efforts to gain local acceptance can have a depoliticizing effect (Lehtonen, 2010). The research contends that public trust levels for state institutions play an important role in this relationship, but it is not yet clear in which direction the relationship flows (Lehtonen, 2010). Policy design rooted in community “volunteerism” may prove useful to reduce the political cost as examples in Sweden and Finland suggest (Darst & Dawson, 2010).

Collaboration represents another important aspect in dealing with nuclear energy issues. A secure global energy supply requires international stakeholders to

come together to develop a security framework that can reinforce the vulnerabilities of the energy infrastructure (Giroux, 2010). Collaborative efforts between repository and social scientists may also provide solutions to issues relating to UNF management (Bonano, Swift, Appel, & Meacham, 2011). Social, economic, and political factors are all relevant in the evaluation and selection of UNF management options, and sociopolitical issues in particular have the ability to affect the complexity of repository sitings and the development of new national policy for more permanent storage of nuclear waste (Bonano et al., 2011). A working relationship between repository and social scientists can contribute considerably to the successful identification, evaluation, and resolution of issues related to public confidence and acceptance of a repository (Bonano et al., 2011). Social scientists can also assist in communications regarding the technical aspects of UNF storage to the public and help to “frame policy in terms and values that matter most to the public” (Bonano et al., 2011, p. 13). As nuclear energy issues move from being centered on technical knowledge to encompassing social and ethical implications, collaborations between policymakers and social scientists become more salient (Solomon et al., 2010).

Equally important is the mitigation of “perceived risks” of nuclear energy from a risk communication perspective. Multiple strategies have been used to downplay risks commonly perceived by the public. A rebranding of nuclear energy in Canada, for instance, goes beyond a message of clean and green energy to produce subtly nuanced messages that underscore the engineering, scientific, and technical aspects while deemphasizing any environmental and health risks by developing messages “for different audiences by point to its social relevance, by highlighting the vital nature of its core activity to society in general, by demonstrating the illegitimacy of those who criticize it, by developing an organizational image of social worth, and by enhancing its local and national reputation” (Eyles & Fried, 2012, p. 4). A unified message created through visual and verbal cues that are context bound and designed to lessen perceived risks has been found to encourage trust in industry experts and emphasize local benefits that will remain resistant to outside criticism (Eyles & Fried, 2012).

Laes and Schroder (2010) contemplate the tendency of society to draw boundaries and repeat historical reconstructions, making it difficult to recognize the issues associated with nuclear energy from any other perspective. As a result, alternative solutions to these issues remain hidden. The issues associated with nuclear power as reviewed here may allow society to “understand the particular constellation of factors that led to the situation being as it is right now” with a chance at developing policies to handle commonly agreed on issues (Laes & Schroder, 2010, p. 194). Perhaps political consensus can also function to marginalize other expertise and with it, reduce the opportunities to discover alternative solutions either now or in the future (Laes & Schroder, 2010). “Contextual expertise” and scrupulous examination are valuable policymaking tools (Laes & Schroder, 2010, p. 201). The ultimate goal is to support the progress of energy generation technology in the safest and most effective manner. As different global actors decide on their own energy focuses, those choosing nuclear energy will have a dynamic set of challenges to address for implementation.

Energy Efficiency

A second important topic illustrated by the review was energy efficiency. This area of energy policy is accompanied by numerous policies such as fuel efficiency standards, building energy efficiency codes, and tax credits for energy efficiency retrofits. According to the American Council for an Energy Efficient Economy (2013), these policies can be categorized into six broad categories: (1) utility public benefits programs and policies, (2) transportation policies, (3) building codes, (4) combined heat and power, (5) state government initiatives, and (6) appliance energy standards. This classification illustrates the broad spectrum of focus for energy efficiency policies that can be at a state or local level and can be focused on industry or built systems. The vast array of combinations of policies and programs relating to energy efficiency has fostered a dynamic space for evaluation of policy implementation as well as theoretical discussion related to policy diffusion. Energy efficiency is touted as the most feasible and immediate energy source for increasing energy security, which necessitates a proper analysis of the efficacy of various current energy saving practices.

Research on energy efficiency included case studies and comparative policy analyses. The research approaches were used to evaluate the implementation of current energy efficiency policies that have already been adopted. A primary focus in this sector of energy policy is Energy Efficiency Resource Standards (e.g., Carley, 2011, 2012; Carley & Browne, 2013). These standards require utilities to reduce anticipated load with energy efficiency measures and are mainly adopted at the state level. The policy is gaining popularity; however, studies find its effectiveness can be increased through complementary policies such as energy tracking and flexibility mechanisms such as banking or borrowing (Carley & Browne, 2013). The implementation of these standards has seen varying success across the United States, and the current research aims to evaluate effectiveness in obtaining goals based on desired outcomes (e.g., Brown, 2014; Foulds & Powell, 2014). Desired goals include reducing electricity consumption, and this outcome is not always achieved as a direct result, so future research should aim to examine the entire spectrum of effects by setting these standards in place. Databases of information, such as the Homes Energy Efficiency Database in the United Kingdom, show promising applicability in the space of local energy policymaking processes to examine correlations of energy efficiency implementations and geographically oriented local policies (Foulds & Powell, 2014). Other case studies were used in U.S. states to further examine energy efficiency policy implementation, and some of this research examined the sources of policy preferences. A Colorado case study used questionnaire data to examine the influence of factors such as climate knowledge, risk perceptions, and ideological beliefs on preferences for energy efficiency policies (Elgin & Weible, 2013). Climate knowledge was found to be less of a determinant in comparison to the other two factors when it came to policy preferences related to energy and climate change. From these policy analyses and case studies, it is apparent energy policy research needs to continue to expand on administrative evaluations for effectiveness to inform future policy decisions.

One reviewed article representative of this expanded approach used its findings on energy efficiency policy to contribute to the theoretical frameworks of multiple streams and punctuated equilibrium, focusing on the United Kingdom from 2006 to 2010 (Carter & Jacobs, 2014). Based on a review of agenda setting during this time period, the authors found that transitions or changes in policies happened in policy windows that were open much longer than would be predicted by previous theoretical parameters. Party politics and policy entrepreneurship from government ministers were found to play stronger roles than what had been modeled in the past (Carter & Jacobs, 2014). Though this theoretical discussion is rare in energy policy research, it reveals an opportunity to expand on the growing observations in the field of public policy to better inform future decision making.

Method improvements for measuring energy efficiency impacts and policy effectiveness have been investigated focusing on improving analysis through the inclusion of variables that expand on the energy intensity measure over time (Filippini & Hunt, 2010). Changes in energy intensity can be influenced by a number of economic factors and external technological improvements that do not reflect the local policy environment and efforts underway to undergird energy efficiency. A methodological improvement can involve controlling for these other factors to examine the true energy efficiency measures in place (Filippini & Hunt, 2010). This type of research helps expand the frame of reference beyond energy intensity and allows for the scope of energy efficiency research to focus on relevant policy impacts.

In addition to this methodological research, there is an opportunity for informative outreach and communication regarding energy efficiency options. The National Academy of Sciences performed a national survey where public estimates of energy savings were underestimated for options such as installing more efficient light bulbs and appliances (Attari, DeKay, Davidson, & de Bruinc, 2010). Many respondents favored limiting use as the best approach to reducing energy consumption. This method of energy reduction is part of energy efficiency. However, there is a misunderstanding of the significant cost savings associated with energy efficiency investments that would reduce energy consumption by having a complementary impact when combined with limiting use. These consumer-facing energy knowledge studies help round out the policy analysis and public administration studies that focus on policy implementation. The goal of these studies is to examine if the efforts to inform society are aligned with the policy outcomes desired from a policymaker perspective (Attari et al., 2010).

These reviewed articles paint a dynamic picture for energy efficiency that includes considerations for proper policy analysis, a need to address public opinion and knowledge, and potential sources of information for refining policy options. The next section will continue this narrative of analysis improvement as it relates to renewable energy policy options.

Renewable Energy

Renewable energy continues to gain traction as more policies are put into place to incentivize its production and set goals for increasing use. Renewable energy

comes from sources that naturally replenish on an anthropogenic timescale (i.e., it will be available infinitely for human use). These forms of energy are not exempt from requiring some extraction of natural resources because of the translational and transmission infrastructure needed to obtain usable electricity from the sun, wind, water, and earth, but natural resource extraction becomes less intensive in this medium, and related policies focus on taking advantage of the benefits found in renewable energy use and production, which include less pollution and increased energy security.

A popular state-level policy for supporting this source of energy, renewable portfolio standards (RPSs), has been highlighted as a research topic in cross-state analyses to evaluate the effectiveness of its implementation (Carley & Browne, 2013; Fischlein & Smith, 2013; Schelly, 2014). The standards require utilities and other electricity providers to include renewable energy sources in their energy portfolio. In turn, more renewable energy generation is spurred. As of 2012, 29 states, Puerto Rico, and Washington, DC, have enacted RPSs, and 8 states have enacted renewable portfolio goals (Carley & Browne, 2013).

Despite support for RPS policy implementation, policy analyses revealed policy inconsistencies within the states and the need to align goal setting with incentives, such as feed-in tariffs and solar energy incentives and rebates (Schelly, 2014), to expand renewable energy use. Utilities often service regional customer bases, making it difficult to manage separate policy regulations (Carley & Browne, 2013). This direct policy analysis has been complemented by research into funding directions and informational databases for renewable energy innovations in previous decades (Fischlein & Smith, 2013; Liang & Fiorino, 2013). Dependable and consistent research and development support have led to improvement in innovation and underscored the significance of providing sufficient funding for relevant policies (Liang & Fiorino, 2013). This support is crucial, as renewables are currently still on the periphery of the overall energy transmission infrastructure. Ideology at the citizen and the governmental level also plays a crucial role in determining the effectiveness of RPS (Carley & Miller, 2012). For standards that were stringent and strictly enforced, the governmental ideology drove policy adoption, whereas standards that were voluntary reflected an influence from citizen-level ideologies (Carley & Miller, 2012).

Other policy options to support renewable energy include net metering and renewable energy certificates (Carley & Browne, 2013). Net metering applies to renewable energy generation because it allows a consumer to offset electric energy provision by producing at-home or on-site electricity generation. This serves as an incentive for smaller-scale renewable energy. As of 2012, 43 states, plus Washington, DC, and Puerto Rico, have adopted state net metering policies while 3 states implemented voluntary net metering guidelines for utilities (Carley & Browne, 2013). Renewable energy certificates, another popular policy option, allow for property rights of renewable energy generation (EPA, 2008). More research is needed to evaluate the certificate markets and how they are helping states achieve their goals related to renewable energy (Carley & Browne, 2013). Net metering and renewable energy certificates are framed as supporting policies of RPS reflecting the importance of

further energy policy research into their effectiveness and impact on progress toward the outlined standards.

A paradigm shift is on the verge in the renewable energy sector. For example, in Germany and other countries in Europe, there are aspirations to be supplied by one hundred percent renewable energy sources, as shown in policy analysis studies (e.g., Hohmeyer & Bohm, 2014; Nilsson, 2011). The time horizon for the transition is mid-century (2050), and policies will play a key role in incentivizing the utilization of renewable energy sources and in further construction of electricity grids (Hohmeyer & Bohm, 2014). The reality of massive water consumption requirements for extracting fossil fuels in a time of increasing water scarcity lends greater urgency to the move toward renewable energy (Keith, Jackson, Napoleon, Comings, & Ramey, 2012). There is promise in expansion efforts as options such as wind resources see further integration, even in smaller scale operations (Weiner & Koontz, 2010). The inclusion of renewable energy resources will take an amalgamation of these small-scale efforts to bolster the regional and national efforts for energy transitions. A lack of storage capacity remains the main hurdle for using renewable energy at a larger scale into the grid. Current efforts underway at the Argonne National Research Laboratory in Chicago aim to increase the energy density of batteries by a factor of five at a fifth of current commercial costs within the next 5 years (Wernau, 2012). This ambitious research initiative will shift electricity transmission to demand response and fundamentally change how energy is transferred and will open up the discussion far beyond the extraction of natural resources. The main takeaway from the renewable energy research is the necessity of effective policies to accelerate the ongoing transition to these new energy resources.

In regards to energy efficiency and renewable energy, there are clear examples of success, as well as room for improvement. Similar areas for improvement rest in increased utilization of informational databases (e.g., Renewable Energy Portfolio Standard State Databases, and Homes Energy Efficiency Database), education and outreach, and policy analysis framing. Renewable energy is still limited in opportunities for expansion due to insufficient infrastructure, but this foundation should evolve with time. Energy efficiency policy options are available and can help bridge the gap to a sustainable energy future as renewable energy options continue to develop.

Hydraulic Fracturing Operations

Finally, some of the recent literature discusses the emerging issue of hydraulic fracturing (also known as fracking) from various analytical angles. Hydraulic fracturing is a nontraditional drilling method that allows the profitable extraction of natural gas from deep underground shale rock formations by injecting a high-pressure fluid consisting of water, sand, and chemicals to fracture the shale and release the natural gas. Using this unconventional drilling technique, the shale gas industry is expected to bring prospective benefits to local economies, but it also poses potential risks associated with environment degradation and negative health impacts in affected regions. Due mainly to uncertainties embedded in speculations over various aspects of such benefits and risks, public attitudes toward fracking practices, not to mention

those of directly involved interested parties, are diverse, often generating political controversies that garner significant attention from policy scholarship.

Earlier studies on this issue focus on the assessment of positive economic impacts of the shale gas industry on a regional economy. Analyzing the cases surrounding Marcellus shale in the state of Pennsylvania, for instance, Considine, Watson, and Blumsack (2010) claim that the fracking-based gas extraction industry is projected to boost the local economy with growing economic activities, job creation, and increased state and local tax revenues, even though Kinnaman (2011) questions the methodological validity of their optimistic estimation of economic impacts. Quite contrastingly, some studies pay attention to several undesirable consequences of the implementation of such drilling technology, including possible contamination of groundwater supplies derived from the use of toxic fracking fluids (e.g., diesel and benzene) and inappropriate wastewater management; overconsumption of groundwater in the extraction process that can aggravate the long-term sustainable water supply; and the potential adverse effects on land use, noise, and air quality accrued to affected local residents (e.g., Davis, 2012; Davis & Fisk, 2014).

Given these contentions with contrasting analytical claims, policy scholars seek to understand public attitudes toward issues pertaining to fracking operations and examine why some people are supportive while others are not. Based on a national survey of 1,061 American adults conducted in 2012, for instance, Boudet et al. (2013) claim that a majority of American citizens are not familiar with hydraulic fracturing and do not hold a clear position on the related issues. However, when they investigated 435 survey respondents who showed a relatively strong opinion on fracking from the same survey, they found that support and opposition are evenly split and those who are older, well educated, politically conservative, exposed to television news at least once a week, and perceive positive economic or energy supply outcomes are more likely to support fracking, whereas those who are female, egalitarian, exposed to newspapers more than once a week, familiar with hydraulic fracturing, and predict negative environmental impacts are more apt to oppose fracking. Similarly, based on a national survey of 2,400 Americans who are older than 16, administered in 2012, Davis and Fisk (2014) report similar findings with women or urban residents being more inclined to oppose fracking and accordingly more supportive of government regulations on related drilling operations. More importantly, they further argue that there is a tendency to oppose fracking and support current or increased levels of regulations among those who hold Democratic Party affiliation and proenvironmental policy attitudes (Davis & Fisk, 2014), which implies that the fracking issue has become a political agenda.

Various efforts to properly characterize the political nature of the fracking debate and related policymaking process are further attempted by recent studies. One of the important aspects in understanding fracking policymaking is the fact that state politics, rather than national politics, dominate the related policy space, and local-level policy friction is especially important to consider (Arnold & Holahan, 2014; Rabe & Borick, 2014; Rinfret, Cook, & Pautz, 2014). In a comparative study of Colorado and Texas on the politics of fracking, for example, Davis (2012) emphasizes the role of political control and entrepreneurial leadership in the formation of the regulatory

policies related to fracking by arguing that, when compared to Texas, Colorado installed more stringent regulations on hydraulic fracturing operations to protect the environment in 2007–8, primarily because Democrats, who historically tend to be more progressive on environmental issues, won both the governor's office and majorities in both chambers of the state assembly in 2006, while former Democratic Governor Bill Ritter used his entrepreneurial leadership for strengthening regulatory initiatives in the Colorado Oil and Gas Conservation Commission that authorizes most decisions affecting drilling operations in Colorado. In a similar vein, throughout an investigation of state-level policies requiring the disclosure of the chemicals used in fracking procedures, Fisk (2013) reports that states with more liberal elected officials tend to have stricter disclosure rules than states with more conservative government officials. Heikkila et al. (2014) extend our understanding of the state-level fracking chemical disclosure policy by attempting to explain how and why the related policy changes occurred in Colorado in 2011. According to Heikkila et al. (2014), though gas industry and environmental groups had fundamental disagreements on the use of fracking methods in shale gas extraction and on the concerns regarding negative impacts on the environment and public health, both groups agreed that such chemical disclosure mandates were necessary, which translated into the installation of more stringent fracking regulations in Colorado. This suggests that to properly understand variations in fracking policies across space and time, we must give attention to internal dynamics of the policy process, such as major stakeholders' attitudes and behaviors, including negotiation-based strategic agreements on certain aspects of policy arrangements within a particular subsystem, as well as broader contextual factors that shape such political playgrounds.

Conclusion and Discussion

In an attempt to comprehend the intellectual trajectory of energy policy research development in this article, we have identified and elaborated on a few key topic areas of scholarly attention in the energy policy domain, such as nuclear energy, energy efficiency, renewable energy, and hydraulic fracturing operations. In the following, while summarizing our previous discussion, we further discuss what is absent from the current research effort and what work remains to be done to provide useful future advice to society in this aspect.

Early research agendas on nuclear energy were primarily conceived as technical, but later research calls attention to the interdependence among technical, social, psychological, and political processes. Much research argues that nuclear energy potential for expansion may hinge on public acceptance, continued expert collaboration, and stakeholder engagement. It is further suggested that an understanding of public risk perceptions and the role of trust in stakeholder relationships are integral to attaining the genuine public involvement needed for public acceptance. Equally important, in this regard, is to establish effective communications based on more nuanced messages that are tailored to conform to various stakeholders' intrinsic values, attitudes, and preferences while also striving to achieve technological innovations that can make cheaper and safer, noncarbon-emitting methods of power

generation possible. Of course, this line of inquiry of recent studies reviewed are not reflective of the aftermath of the tragic events of 2011 in Fukushima, and perhaps, we will need to wait a few more years to see research articles published in major public policy journals incorporating a more systemic investigation on the impact of Fukushima on the aforementioned policy dynamics from a policy scholar's perspective. Nevertheless, in the wake of recent swift changes in global public attitudes against the use of nuclear power after Fukushima, it is obvious that many countries have decided to revisit their previous nuclear energy policies. As a result, some countries (e.g., Japan and Germany) took a more restrictive stance on the use of nuclear power while other countries (e.g., France, Brazil, China, and Russia) remained reliant on nuclear technology for a significant portion of their power generation. Further policy research is expected to offer advice by examining the role such dynamics discussed in previous nuclear energy policy research have played in establishing such contrasting policy responses, which will help clarify the recipe for successful participatory and collaborative approaches in the formation and implementation of future nuclear energy policy.

The vast array of combinations of policies and programs relating to energy efficiency and renewable energy (e.g., tax credit programs, Home Energy Affordability Loans, updating Energy Conservation Codes, Complete Streets Policy, setting energy saving goals, standard-setting goals for renewable energy, and Property Assessed Clean Energy District) have fostered a dynamic space for evaluation of the efficacy and effectiveness of such policy options and their implementation practices as well as an opening of the theoretical discussion on policy innovation, learning, adoption, and diffusion. Many previous studies on this particular topic area, however, tend to emphasize structural; institutional; and, more recently, network characteristics that can impinge on outcomes of collective decisions regarding whether they would entrench or retrench such policy options at various jurisdictional levels. Though such macro- or mesolevel analysis made meaningful contributions to the progress of related policy research programs, policy scholars also need to focus on microlevel analysis based on methodological individualism. As far as policy diffusion is concerned, for instance, we have focused on nation-to-nation or state-to-state diffusion mechanisms at the system or subsystem level, but an equally important question to be answered regards why and how policy elites actually make their individual decisions, as they are conceived to have more direct significant influence on policy adoption decisions, which ultimately translate into policy diffusion within a particular policy subsystem.

Hydraulic fracturing for shale gas extraction is an important policy issue of emerging attention in the energy policy subsystem, and a growing number of policy scholars have begun examining various aspects of this unconventional gas extraction method, which leaves economic, environmental, and sociopolitical consequences of such practices in question. By nature, the issue of fracking is quite similar to that of the nuclear energy debate in that while both can be thought of as low-carbon-emitting energy sources, presumably allowing them a comparative advantage to traditional fossil fuels (especially when considering ongoing climate change concerns), both hold dire sociopolitical ramifications, particularly in affected regions. As the issues

concerning nuclear energy have evolved from technical to sociopolitical and psychological while moving toward a collaborative and participatory approach rather than traditional top-down decision making, policy scholars will need to examine the efficacy and effectiveness of such bottom-up policymaking mechanisms with regard to policies dealing with the issues of hydraulic fracturing, and more importantly, should be ready to answer inquiries regarding what conditions allow the greatest efficacy for such an approach while considering the role of trust among engaged stakeholders based on effective communications. In so doing, further attention should be given to those questions related to what kind of lessons we can learn from research findings from several U.S. states, such as Colorado, Pennsylvania, Texas, and New York, where fracking has become a very salient political issue, and how we can apply such lessons toward understanding policy-relevant processes in other parts of the country.

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Notes

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1. It is noteworthy that our journal selection is somewhat limited in that the journals selected for review are published mostly in the United States and not inclusive of all the energy policy related journals published worldwide. Readers should make note of this while they read and interpret the results of this study.
2. This includes, but is not limited to, political science, policy analysis and management, energy and environment studies, economics, and risk studies.
3. The number in the parenthesis shows the number of articles reviewed from a particular journal.
4. The U.S. concentration in the geographical focus of reviewed energy policy studies is mainly due to the fact that most journals we examined are U.S.-based.

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Reassessing “City Limits” in Urban Public Policy

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Urban public policy continues to explore the problems of urban growth and decline in a multidisciplinary fashion, focusing multiple theoretical lenses on questions of governance and division of authority as well as the practical applications for areas of policy specialization. This article reviews recent articles on income, housing, and racial/ethnic stratification, which share a common link of mobility-based prescriptions. It also reviews the role sustainability, equity, and cultural norms play in scholarship. The field is moving in a direction that integrates classical rational choice and sociological explanations for policies addressing sustainability and equity, the role of cultural identity in urban renewal efforts, and long-standing problems of citizen participation in government decision making.

KEY WORDS: urban public policy, urban politics, sustainability, regime theory, pluralism, gender issues, equity

Introduction

Urban affairs scholars have been battling for relevance on the periphery of the social sciences for most of the field's existence. This article reviews the recent progress of urban public policy researchers in turning the criticism of “balkanization” of research specialization into prescriptive applications for governance. It also examines theoretical advancements in exploring the lifespan of cities, or what Bowen and others call “the changing realities of evolving human settlements” (Bowen, Dunn, & KasDan, 2010). The aim is to assess progress toward developing both policy recommendations and general theory for the patterns of growth and decline within cities. The review covers research published during the previous 5 years (2010–14), although some seminal work predates that timeframe. Four interrelated themes emerge from the literature: empirical analysis of the philosophy of mobility in delivering urban goods and services to disparate community groups, increased focus on sustainability and equity, the influence of cultural identity on urban renewal efforts, and problems associated with garnering citizen participation in government decision making and community support for policy goals. The next section outlines theoretical criticisms and advancements within the field along with research into policy prescriptions of mobility. The second section details future directions for the field of urban studies.

Cities in Gridlock

The Border Wars of Urban Studies

Do city limits still matter for the study of public policy? Cities still charge taxes and pave over potholes. Local governments remain visible in the daily experiences of the citizenry. Yet, central cities were long ago classified as a vestige of the urban system, as the ills of racial/ethnic stratification, job flight to edge cities, exclusionary housing patterns, and income inequality metastasized into regional problems. Extant research on urban disinvestment and public participation demonstrate the scope of the problems. Elite civic participation is declining as community ties to center cities strain (Hanson, Wolman, Connolly, Pearson, & McManmon, 2010), and modes of citizen participation often fail to overcome the complex challenges of daily urban life (Carr & Tavares, 2014). At the same time, the field of urban studies has a history of difficulty maintaining more than peripheral attention within the social sciences. "Mainstream" political scientists began to abandon the field in 1980s. Urbanists who stayed became devotees to rival "schools" clinging to particular urban forms. Members of the "Los Angeles School" of urban studies argued the dominant form of human settlement was an ungovernable, gated-off, calcified pocketing of wealthy, and poor communities, an "antidemocratic residential apartheid" (Dear & Dahmann, 2011). Meanwhile, followers of the "Chicago" and "New York" schools focused on the concentric circles and political eccentricities of their own metropolitan regions, while urban scholars sandwiched in all places in-between were seemingly relegated to specialized border skirmishes over the "contested terrain" of urban studies (Judd, 2011). Cities have remained a focus of fascination for scholars, yet urban outcomes appeared mired in mystery. Urban decline has motivated policy entrepreneurs and researchers alike to prescribe mobility as a remedy to educational failures, income, and racial stratification and blight. As globalization of production, manufacturing, distribution, and employment coupled with transportation, technology, and housing changes have all fueled regional migration (Moos & Skaburskis, 2010), some argue the city limits have become an outdated concept, surpassed by an idealized global metropolis in the practice and study of urban service delivery (Martinez-Fernandez, Audirac, Fol, & Cunningham-Sabot, 2012).

Conversely, does urban public policy research matter much to cities? It has been 33 years since Paul Peterson (1981) famously lamented that urban studies had retreated from asking big questions relevant to democracy, into a policy-specific "multiplicity of feudal barons" left to "till fields of little concern to the larger world." Scholars later lamented that urbanists have become "end time prophets" (Judd, 2005) and because the field had failed to advance beyond Clarence Stone's "Regime Theory," urban scholars were trapped in a "black hole" where "[n]o ideas escape the event horizon surrounding urban politics; furthermore, ideas from outside rarely penetrate the subfield's borders" (Sapotichne, Jones, & Wolfe, 2007). Noting that the orthodox pluralism of Dahl (1961) has receded and been supplanted by economic explanations of urban political decision making (Peterson, 1981), regime theoretic views of capturing governing capacity (Stone, 1993), and polycentric regulation of

common-pool resources (Ostrom, 1990), they argue for more attention to forming consensus on broader questions and theories applicable to mainstream political science. In the years since, urban researchers have done a fair amount of introspection on the lost status. Orr and Johnson (2008) argue the decline in interest is attributable to the flight of urbanists to other research areas, a decline in funding for federal urban programs and policy research under the Reagan Administration, and the “social danger” of reinforcing stereotypes through research on racial inequalities and prejudice.

But it seems the city has not fallen. More than half the world’s population lives within cities. Urban land cover is projected to triple by 2050 (Angel, Parent, Civco, Blei, & Potere, 2011). The rapid urbanization of the planet presents a multitude of ecological and societal dilemmas over issues such as housing, transportation, energy use, pollution emissions, and income inequality. On many fronts, researchers over the last 5 years have made inroads in re-energizing research agendas focused on problems of inequalities between groups which are context-rich and externally valid. These emerging trends focus theoretically on blending the economic and social explanations for policy output, in the context of the reconceptualization of urban revitalization, sustainable development, and social equity. While researchers are still interested in democratic questions about the amalgamation of power and who holds it, researchers are incrementally building and testing theories of urban policy processes through the field’s unique multidisciplinary lens. Perhaps for lack of paradigmatic consensus, the broader arena of urban studies—a multidisciplinary field incorporating geography, economics, urban planning, public administration, political science, and sociology—has continued in recent years to buttress itself as a problem-oriented field organized around “urban settlement systems” and the political, economic, and regulatory social processes influencing them (Bowen et al., 2010).

Decayed Urban Cores and Mobility as Prescription

Since the federal government began de-emphasizing urban policy interventions in 1980s, the field has come under greater influence from “a liberal philosophy of mobility,” which holds that increasing mobility could be a panacea for addressing urban problems of poverty, unemployment, housing, education, and racial imbalance (Bickers, Salucci, & Stein 2006; Imbroscio, 2011). This view focuses on the perceived failures of local governments to address the multitudes of service demands from constituents. It is motivated by an expanded public choice envisioning of the Tiebout model which expects that policies encouraging competition between local governments for public goods will lead to their more efficient and effective allocation (Howell-Moroney, 2008). Beyond individual benefits, an emerging research agenda focused on “smart decline” is challenging the idea that population decreases are always negative for cities themselves. Driven by the Great Recession, some urbanists have coined the term “shrinkage” to describe policy adaptations to “right size” service delivery in cities losing population (Oswalt & Rienients, 2006). For instance, Hollander (2011) finds through an exploratory analysis some evidence that resident

perceptions of quality vary widely among cities shedding population, but that perceptions of high quality are not the sole purview of growing urban areas.

Educational Choice. Research in recent years has focused on the drivers of social fragmentation and NIMBY-ism (Not In My Back Yard), and relationships between population sorting and innovations in the delivery of services, most notably education. School voucher programs have continued to proliferate across the country utilizing mobility to engender incentives for public schools to make learning gains or risk losing funding, although it remains an open question as to whether they affect degrees of socioeconomic and racial stratification within communities. Utilizing Monte Carlo simulations and data from Colorado schools, Carlson (2014) finds evidence that the state's interdistrict school choice program slightly increases socioeconomic stratification but has the opposite effect on racial stratification. The results suggest differences between the participants themselves, rather than heterogeneity of options for schools they can choose, explain more of the educational stratification. The simulation trials suggest stratification may be more related to initial conditions of income, racial, and education segregation within communities, but that policy design matters: choice programs targeting lower-performing students, or an equal proportion of low- and high-performing students, may reduce stratification witnessed in Colorado's school system. The majority of the scholarship devoted to educational mobility policies have utilized the student as their level of analysis, while a smaller subset look at the impacts on the public school systems. At the same time, an analysis of policy feedback by Fleming (2014) suggests that parents in the Milwaukee school system whose children receive school vouchers are more aware of government activities, more politically active, yet less supportive of public schools. While not conclusive, some progress has been made in recent years to help incrementally demystify urban education policies at the center of discourse over the future of the urban poor. In future years, educational segregation should continue to be a focus of work, similar to the effort by McVeigh Beyerlein, Vann, and Trivedi (2014), to study linkages between education levels, segregation, and the prevalence of Tea Party organizations in U.S. counties. Their work found higher education levels and educational segregation were positively associated with the number of Tea Party organizations active within communities.

Racial/Ethnic Stratification. Racial and ethnic divides remain a strain on service delivery in modern American cities. Methods for remediating racial inequalities in income, housing, and education have been animated by the notion of mobility. U.S. metropolitan areas are becoming more racially and ethnically diverse and integrated. Even though whites continue to live predominately in racially homogenous neighborhoods, they have experienced higher rates of diversification in recent decades (Wagmiller, 2013).

Yet scholarship from multiple perspectives has advanced our understanding of the dynamics of stratification in urban neighborhoods, and how federal, regional, and local policies may ameliorate these conditions. In particular, work at the neighborhood level examining the multilevel effects of economic and demographic conditions hold some potential for more precisely depicting the mechanisms contributing

to stratification. Jun (2013), for instance, finds municipal-level factors such as racial/ethnic homogeneity in mid-sized cities are positively associated with better neighborhood economic conditions, although the causal implications of the findings are just as disturbing as they are unclear.

Anderson and Sternberg (2013) analyze the racial contours of redevelopment policies in Chicago, and find “urban redevelopment governances,” or collections of city officials, developers, and financial institutions, respond differently to neighborhoods based on their heterogeneous and interactive “racial economies.” Comparing predominantly African-American and Mexican/Latino neighborhoods in Chicago targeted for redevelopment, the authors investigate how different racial conceptualizations between the neighborhoods influence their development trajectories. The idea behind racial economies is that the actors and institutions involved in redistributing benefits in a political economy are shaped by racial representations, but also interactively change these perceptions. In both neighborhoods, the authors find the redevelopment interests sensitive to the unique “traditions” of idealized Mexican and African-American heritages which influence development patterns.

Racial and ethnic identification have also been shown to play a role in assessments of the economic future of cities experiencing ethnic turnover in their mayoralty (Filindra & Orr, 2013). Research into the “strength in numbers” thinking about racial politics has also grown more nuanced. For example, Rocha and Matsubayashi (2013) find evidence that in Latino communities, the relative presence of Latino non-citizens is negatively associated with equitable policy outcomes, while the number of Latino citizens is positive correlated. In an institutional context, this negative relationship between noncitizens and policy outcomes for all Latinos is mediated by the presence of Latino representatives and citizens.

Housing Policies. Efforts to combat urban poverty have for decades promoted homeownership as a method for wealth accumulation among the urban poor. Policy prescriptions have often resulted in incentives to move inner-city families into more homogenous suburban neighborhoods as well as redeveloping poverty-laden public housing into mixed-income units. In a special issue of the *Journal of Urban Affairs* on the present and future directions of urban research, editor Laura Reese conducts a keyword search of article submissions to the journal and finds housing and neighborhood inequality to be among the most frequent over the prior 4 years (Reese, 2014). Clearly, urban migration is driving research questions into quality-of-life and the social equity implications of mobility. Yet, the evidence is mixed as to whether such policies have been successful.

Mobility plays a role in the organizing logic of programs like Moving to Opportunity for Fair Housing Demonstration, a federal program in the 1990s intended to help extremely poor families with children escape dangerous living environments. The program targeted mostly African-American and Latino families living in the nation’s worst neighborhoods, assisting them in relocating to safer locales with access to better schools. While the program produced no evident reduction in adolescent mental health and delinquency problems (drug use, smoking, and violent and property crimes) among boys, it showed strong improvements with adolescent girls.

While the findings have been controversial, Popkin, Leventhal, and Weismann (2010) argue the noticeable improvement in outcomes for girls could be attributable to reduction in the “female fear” of sexual harassment, coercion, and rape.

Racial and ethnic sorting has long been understood to play a clear but nonlinear role in the deterioration of central cities, evidenced by deteriorating urban housing stocks and rising vacancy levels in many cities. Black and minority populations initially stepped in to fill vacancies as populations migrated to the suburbs, but were unable to completely fill the gap from out-migration. Older urban centers with disproportionate population and job losses suffer from unique vacancy and abandoned “zombie” property mixes that stymie neighborhood rejuvenation (Silverman, Yin, & Patterson, 2013).

Research on urban homeownership policies has focused on two rationales: that they foster distributive justice for low-income minority communities, and that they produce positive externalities such as Putnam’s (1995) concept of social capital. Social capital is an umbrella term for the community cohesion from shared relationships and social networks built on trust and reciprocity. Such studies have often found mixed housing efforts have failed to develop social networks (Curley, 2010). Some housing policies subsidize lower-income minority migration to higher-quality housing in the suburbs, although recent research suggests overemphasis on asset accumulation through property ownership can lock in inequalities among racial and ethnic underrepresented groups when home values fail to appreciate more at the same rate as in predominately white neighborhoods (Anacker, 2010). However, homeownership efforts have also been shown to improve the caliber of post-move neighborhoods encountered by homeownership program beneficiaries, suggesting the programs produce some selective benefits for participants even if they do not by themselves level the social playing field for underrepresented groups (Santiago et al., 2010).

Conversely, Allen (2013) finds evidence that involuntary mobility following home foreclosures has a disruptive effect on households with children in public schools in Minneapolis, MN. Allen’s study found those households staying within the public school district were more likely to move to areas with higher poverty and segregation postforeclosure. However, the study’s inability to control for many potential confounding factors such as household size, employment status, and housing vacancy rates makes it impossible to draw conclusions about the broader policy prescription of homeownership for solving urban inequalities, let alone the effectiveness of policy interventions such as adjustable-rate mortgages and relaxed consumer credit score requirements for loans.

Another study, by Fraser, Burns, Bazuin, and Oakley (2013), of the federal House Opportunities for People Everywhere Program (HOPEVI) found that efforts at inducing replacing public housing with mixed-income units to induce socioeconomic mixing can produce marginalization of public housing residents by their higher income neighbors. The positive effects advocates of mixed-income housing espouse—social networking that can lead to better jobs and increased wealth—may remain more illusory than expected. Analysis in this area finds residents in such HOPEVI neighborhoods are still more likely to associate with those in which they

have commonalities (Chaskin & Joseph, 2010, 2011; Kleit & Carnegie, 2011). Another research effort studying the experiences of residents of Toronto's first mixed-income redevelopment project suggests that problems still persist, particularly power imbalances between low- and middle-income neighbors, as well as conflict over defining public space, and modes of surveillance and exclusion (August, 2014).

Transportation. Research into the hollowing out of cities also continues to develop along spatial and urban design dimensions. Cities most impacted by loss of population density and white flight—particularly Detroit—have drawn more academic attention. In one study of six neighborhoods within Metro Detroit—four more affluent and two lower income inner-city neighborhoods—Vojnovic et al. (2014), capture the relationships among the decline of neighborhood; modes of travel; and access to amenities such as grocery stores, coffee shops, and restaurants. The research identifies predictable patterns between neighborhoods with greater population density, mixed land-use, and connectivity, with shorter distances to amenities and higher travel frequencies (Vojnovic et al., 2014). Urban disinvestment in Detroit is particularly acute in access to grocery outlets, and Detroit's lack of public transit options plays a role in limiting the ease of access of lower income neighborhoods to cultural amenities.

The failure of Metro Detroit to collectively resolve its regional transportation problems in the 1960s has given rise to a critique of regionalism which holds that state and federal grants may not be a sufficient condition to foster successful regional governance. Nelles (2013) chronicles the 40-year failure of the Detroit metro area to develop a regional transportation system. Despite numerous pledges of funding for metropolitan public transit, the federal government has had to renege in the face of the inability of Detroit city and suburban officials to forge a workable regional plan. Nelles argues collaboration between local governments in order to draw federal funding was insufficient to produce success. Following on the work of Weir, Rongerude, and Ansell (2009), Nelles concludes stronger "horizontal" and "vertical" governance capacity is required for Detroit to overcome its past failures, and points to indicators such as federal mentorship and a more activist civic class offering to pay local matching funds as potential factors which could change the city's mass transit course.

While this bundle of "classic" urban problems revolving around location and mobility remain a locus of attention for urban scholars, the failure of federal policies to address national and global problems has widened the spectrum of activities in which localities may engage. This is posing new avenues for research and rekindling interesting in urban studies.

Developments in Institutional Analysis of Urban Affairs

Although the federal government's urban interventionist era may have ended, the age of government gridlock at the national level has not. Responsibilities for myriad functions have devolved to local governments due to the failure of national policies. As local and state governments have filled this void, urban research has been

invigorated. For multiple reasons captured by the Bowen et al. (2010) content analysis, the urban studies research agenda has become more varied in methodologies and policy reach due to the specific interests of the subfields of its scholars. This epistemological retrenchment coincides with greater recognition of the multigovernment and multisector reforms in urban service delivery (Brown, Potoski, & Van Slyke, 2010) and the challenges to traditional public choice and regime theory explanations for how institutional actors coordinate to supply public goods (Frasure & Jones-Correa, 2010).

An example of the increased attention paid to the evolution in local governmental service delivery is the Institutional Collective Action (ICA) framework (Feiock, 2013). ICA focuses on the overlapping nature of governmental units and why they may choose to collaborate to provide some public goods and not others. It borrows from the collective action to frame the choice to collaborate by local actors in the face of fragmentation and externalities. The framework provides a typology for matching the “scale and coerciveness” of intervention with the shape of the policy problems, while accounting for the ICA dilemmas of “larger-than-local” problems for fragmented jurisdictions as well as overlapping or redundant hierarchies focused on the same problems. In one empirical treatment of the framework, Gerber, Henry, and Lubell (2013) find evidence that California localities are more likely to collaborate in regional planning when their constituents share similar political preferences, and thus one way for overcoming such ICA problems may hinge on “political homophily.”

Classic rational assumptions have also been challenged by other institutional approaches. In a study of how localities deal with NIMBY problems associated with day laborers, Frasure and Jones-Correa (2010) argue that the partnerships developed between elected officials, bureaucrats, and nonprofits to confront immigrant newcomers overcomes traditional rational-choice and regime coalition expectations for decision making. This “logic of institutional interdependency” challenges traditional rational assumptions that governmental actors will pursue unitary economic development and growth policies. They argue these varied actors in some contexts band together to provide redistributive policies benefiting the underprivileged when costs are divided and credit-claiming opportunities shared.

Scholars in this sense are focusing more attention to the values and principles of policymakers, drawing attention to a wider range of social justice, ethical, and moral concerns articulated by decision makers. Schumaker and Kelly (2013) find evidence that city council members establish “floors” for welfare spending and seek to maintain such funding levels even in periods of economic stress, seemingly at odds with the rational-economic arguments about policymaker behavior in cities.

Social Network Analysis in the City. One methodological advance in recent years is the analysis of network structures. Network analysis is rooted in sociological institutionalism, and is finding wider application in urban governance situations. One way network analysis has been employed in urban studies is to differentiate between policy

networks in which actors sharing norms and beliefs attempt to influence policy design, and the study of implementation networks made up of organizations delivering public services.

Network analysis also has the potential application for the rational choice underpinnings of classic regime theory. Regime theory has a rich tradition exploring relationships between individuals, and the division of labor between governmental and private sectors which over time allows the development governing capacity (Stone, 1993). Network-based research is the study of structure of relationships, and holds promise for the illumination of patterns of urban decision-making processes (Robins, Lewis, & Wang, 2012). For instance, Henry (2011) tests whether ideological similarity or resource dependencies and power relations better explain collaboration between individuals in California transportation and land use planning regions. Henry finds stronger evidence that ideological similarity explains collaboration, although resource dependencies may also exist within those networks. Page (2013) advances a theoretical differentiation between rational choice and sociological institutionalism explanations for governance with a study of Seattle's Light Rail system. Within the context of a mass transit project, he examines whether public choice and principal-agent theories—which assume actors have divergent interests and information bases—are a better fit for explaining major project developments than the sociological institutions stream, which emphasizes interactions based on shared beliefs and norms. Page's process tracing via interviews, public records, and media accounts suggests the theoretical perspectives work better in tandem to explain rational and social variables in policy design and implementation. Each theoretical tradition explained some, but not all, of the major turning points in the project development, he noted.

Reconstructing Pluralism. Whether through areas of nonprofit implementation or the advocacy role single-issue agents, the Peterson notion of "groupless" policymaking in local governments has come under broader assault by a wide range of research endeavors examining the role of group-based organizations in city politics, particularly in areas of environmental sustainability and development (Berry & Portney, 2013; Connolly, Svendsen, Fisher, & Campbell, 2013; Fisher, Campbell, & Svendsen, 2012).

How urban policymakers define their clientele is also shifting, concentrated around distinct and dispersed racial or ethnic enclaves, neighborhood associations, community organizations, and employment hubs that cross municipal jurisdictions. There are more decision-points, potential political vetoes, opportunities for agency, and institutional friction in policy outputs thanks to efforts at engaging citizens in decision making and the "flattening" of hierarchical governmental agencies through outsourcing backroom functions and front-line services and competition. Malatesta and Smith (2011) test the extent to which competition in cable franchise agreements with local governments lead to more concessions in contract terms in New Jersey following a state-level policy change, or exogenous shock. They find evidence that the perception of increased market competition for cable services is influenced by state-level policy (Malatesta & Smith, 2011).

Scholars have continued to coalesce around alternative methods for service delivery that cross municipal borders in the face of urban “shrinkage” where populations are increasingly sorted by race, ethnicity, income, employment, and education. They argue development and growth, while still central motivations for actors within cities, are no longer a singular “regime” because cities are also directing more focus to the classical externalities of energy waste and pollution. Pluralism can be reconstituted by emphasizing the greater role that “diverse ethical and political principles in community politics” play rather than an oversimplistic treatment of group power which may be less reflective of the modern metropolis. In many instances, these motivations of policymakers may be considered “groupless issues” where classic pluralistic explanations of “who gets what” have relatively less leverage (Schumaker, 2013).

As the focus on intergovernmental collaboration, networks, and regionalism has grown in importance to researchers and practitioners (Feiock, 2007), urban policy research has increasingly become dichotomized according to the problems faced by rising and falling cities. One common denominator is an increased attention to sustainability initiatives—how well or poorly declining cities utilize new technologies to redevelop deteriorated areas, foster community buy-in, rejuvenate their tax bases, and attract new residents, along with whether burgeoning metropolitan areas are compromising their economic growth to confront the environmental and ecological impacts (Bulkeley & Kern, 2006; Kousky & Schneider, 2003).

New Directions for Urban Public Policy

Sustainability and Equity in Urban Studies

Sustainable urban development has come to occupy a bridging position between camps of scholars concerned with issues of equity and service delivery, land use and planning, environmental protection, and economic development (Fiorino, 2010). The term *sustainability* is usually defined as a measure of the capacity for society to maintain a quality standard of living without degrading the natural systems that support human settlement (Mazmanian & Kraft, 2009). However, that definition is not without its problems. Some scholars have identified a lack of conceptual clarity behind the term as city officials pursue “sustainable polices” which may place greater emphases on questions of urban design, economic development, or social equity (Zeemering, 2009). Sustainability presents unique contextual challenges for cities, but also shared dilemmas in meeting the growing demands for water, housing, expanded and improved transportation infrastructure, education, food supply, and energy. As such, sustainability is usually conceptualized along three dimensions of social equity, environmental protection, and economic advancement (Paehlke, 2013). These often-conflicting aims can lead to policy trade-offs among public officials, businesses, and environmental groups. The inability to adequately preserve natural spaces and resources poses classical distributional fairness questions of who gets what, as well as problems of intergenerational equity as urban infrastructure degrades and green spaces disappear (Portney, 2013). At the same time, all three dimensions can also present opportunities for more equitable distribution of public goods, from

green-jobs incentives to urban infill and “greening” efforts, walkable access to parks and recreation resources, and reduced pollution and solid waste. Improvement of manufactured spaces is an economic objective with implications for redevelopment of blighted neighborhoods. Water quality and supply demands are also a “wicked problem” drawing collaborative partnerships with nongovernmental agents in order to address nonpoint sources of pollution which can impact communities disproportionately across the social spectrum (Morris, Gibson, Leavitt, & Jones, 2014).

Evidence of the Three “E’s” in Sustainability. Research examining social equity has suggested American cities often neglect or ignore this dimension of sustainability in favor of environmental and economic pursuits. Yet, for the last decade, increased attention has been paid to social injustices and environmental inequities across racial/ethnic, income, and temporal dimensions (Vig & Kraft, 2013). Using International City/County Manager Association survey data, Opp and Saunders (2013) conduct correlation analysis with indices they develop to capture environmental, economic development, and equity policies. Their findings suggest local governments with more diversity, particularly higher Hispanic populations, score higher on their sustainability index. Cities located in the West also score higher. But, the study does not directly test hypotheses of why cities engaged in serious climate action are also accounting for equity and economic considerations, or not.

Efforts such as Philadelphia’s “Greenworks” initiative to lower energy use, cut greenhouse gas (GHG) emissions by 20 percent, improve air quality, increase walkable access to healthy food, and add “greened acres” to manage storm-water are examples of governance strategies that combine growth needs, equity, and environmental stewardship (Dews & Wu, 2013). Urban sustainability initiatives are being rapidly developed and deployed globally in the face of population growth, the expected urban migration of three billion people by 2050 (United Nations Population Fund, 2011), and the beginning of a new era of resource scarcity leading to greater collaboration between the governmental, nonprofit, and business sectors (WBCSD, 2014).

Sustainability is also a multilevel governance question with state, federal, and international institutions, and economic and physical forces at work. Some attention has been paid to differences in incentives for regulatory, voluntary, and collaborative approaches to land conservation (Tang & Tang, 2014) as well as decentralized and collaborative service-delivery mechanisms (Feiock, 2013; Lubell, Feiock, & Ramirez de la Cruz, 2009). But with cities as the primary focal point of climate-change policies, scholars are laboring to understand basic processes and how they relate to environmental outcomes (Ramirez de la Cruz, 2009). Here, there is an emerging consensus that sustainability policy tools such as energy efficiency measures, compact development incentives, and greenhouse gas reduction inventories and reduction targets are not uniform in their social and political costs, and communities’ actions are not unitarily constrained by financial needs. Political economy explanations for sustainability policy output are also continuing to develop. Hawkins (2011) analyzes why Massachusetts municipalities apply to earn incentives through “smart growth scorecards” identifying the intergovernmental planning tools and policies

they have adopted. The study finds support for resource dependency arguments that cities in better financial condition will be less likely to participate in the program, and those with greater business and neighborhood group presence will adopt fewer smart-growth policies (Hawkins, 2011).

Still, the politics of growth is dimly understood in terms of business influence over environmental policy and public officials' responsiveness to varied community needs (Feiock, Portney, Bae, & Berry, 2014; Krause, 2011a). The motivators of city sustainability policy action could tilt anywhere between altruism and economic opportunism based on the multidimensionality of the types of policy tools considered "sustainable." Cities are generally more willing to adopt "win-win" policies characterized as the "low-hanging fruit" of green governance, unless confronted with greater hazards such as sea-level rise (Wang, 2013). An analysis by Sara Hughes (2012) shows that California urban water agencies that join voluntary environmental programs are no more likely to reduce per capita water use than public utilities which do not join. Hughes concludes voluntary programs may not be useful for resource protection without stringent performance measurement and third-party enforcement. Yet, this often reduces the likelihood of local government commitment to such programs. And as prior research suggests, these findings are not uniform. Still, Koski and Lee (2014) find evidence that when local governments increase their commitments to "green buildings," private actors are more likely to follow suit. This so-called "policy by doing" influence is stronger for local government actors than state or federal actions, and suggests even climate-protection actions deemed "symbolic" can have positive externalities within a community.

The political, economic, and institutional determinants of local government climate actions are the subject of tremendous activity even if they remain motivationally enigmatic activities. Sharp, Daley, and Lynch (2013) find that the fiscal stress positively influences the likelihood of joining climate-change networks such as the International Council for Local Environmental Initiatives. The authors speculate this may be explained by city manager-run governments' interest in containing energy costs (Sharp, Daley, & Lynch, 2013). However, Krause (2011b) finds in a survey of climate action in Indiana cities that adopting GHG goals through network membership is a poor predictor of actual implementation of GHG-reduction goals. Many of these studies involve unrepresentative samples of cities from one state. However, some scholars are attempting to develop an integrated nationwide database of city sustainability actions which holds the promise of establishing stronger claims of external validity for local government actions (Feiock, Krause, Hawkins, & Curley, 2014). Last, the extensive sustainability work focused on climate change mitigation is not complete without mentioning climate adaptation and resiliency, and the voluminous amount of work being engaged in to prepare communities worldwide for the challenges of climate change expected in coming decades (Schipper, Ayers, Reid, Huq, & Rahman, 2014). Adaptation will likely become increasingly transparent in urban research in the coming years as cities begin making larger scale decisions based on change climates and resource depletion. While the worst of climate-change adaptation is expected to occur in developing regions, these are also communities with the least capacity for adaptation. While much of the climate-change adaptation

work is being conducted outside the realm of urban politics and policy, urban capacity-building for sustainability has gained some traction in recent years.

Capacity for Sustainability. Little, if any, of the extant sustainability research examines the effectiveness of policies adopted. Another stream of recent analysis has looked beyond the basic question of why local governments commit to sustainable policies, and focused on the extent to which cities are developing the fiscal, political, technical, and managerial capacity to implement and maintain sustainable practices (Wang, Hawkins, Lebrede, & Berman, 2012). If sustainability is the capacity to preserve biophysical spaces human civilization depends on without reducing the quality of life, then identifying and measuring types of *organizational capacities* to reach this state of natural equilibrium is a critical stage of scientific advancement. Organizational capacity can range from the technical expertise required to implement and enforce GHG-reduction targets to curb greenhouse gas emissions. It can include the managerial capacity to oversee grant awards and apply inclusionary zoning tools or impact fees to curb sprawl. It also encompasses the political ability to build stakeholder and citizen support for smart-growth goals. Those “capacity-building” interests extend beyond the traditional universe of urban political players—the mayors, business elites, unions, and policy entrepreneurs—to city administrators, community organizers, neighborhood councils, and virtually every concentric circle of urban governance. Recent literature has honed in on the gap between what scholars have long documented in the determinants of urban decay and fiscal stress, and systemic empirical analyses of such capacity-building.

These research efforts viewed cumulatively raise the possibility that a cogent research agenda built around sustainable growth and equitable distribution of public goods could supplant mobility as a new philosophical grounding for urban studies.

Cultural Identity, Toleration, and Urban Revitalization

One sign of the emergence of a more holistic theoretical view of urban systems is the recent competition among economic, political, and cultural models for explaining policy output. This has produced some encouraging empirical work examining the role of women in the workforce; religious participation; support for the arts; degree of inclusion of gay, lesbian, transgendered, and bisexual communities in decision making; and other cultural contextual variables in studying the policy outputs of urban systems (Rosdil, 2010; Scott, 1997; Sharp, 2007). This can be traced to the arguments of Putnam (1995), Florida (2004), and others emphasizing the influences of trust, social capital, and diversity in spurring economic growth. Although Florida’s “creative class” argument has come under attack for lack of empirical support, some studies have nonetheless found cultural variables influence attitudes and urban policy output (Deleon & Naff, 2004).

Urban studies have continued to explore problems through the prism of gender and sexual orientation. Alozie and McNamara (2010) find evidence in a survey of Phoenix, AZ, residents of a modest gender gap in willingness to pay for public services, with women slightly more willing to do so along a spectrum of 28 difference

services. Rocha and Wrinkle (2011) explore gender and ethnic effects on public policy through an analysis of the democratic representation of disposed subgroups of traditionally disadvantaged electoral groups. Specifically, they test whether the presence of Latina women on Texas school boards is more strongly associated with support for bilingual education policies. They find that contingent support for bilingual policies is stronger when the percentage of Latina board members is higher as opposed to higher percentage of Latino board members, although both subgroups are positively associated with support for the policies.

Economic development justifications have also been extended to urban policies such as child care, which also have gender equity and justice benefits (Warner & Prentice, 2013). Rather than narrowing the policy space of social rights, Warner and Prentice argue in an analysis of 90 studies on child-care policies that casting of the programs in terms of beneficial “social infrastructure for economic growth” is an innovative development that broadens opportunities for gender justice.

Urban leaders are also turning to arts-focused strategies for urban development, and predictive models for where cities can focus efforts to foster arts-centered redevelopment policies have emerged from case studies (Ryberg, Salling, & Soltis, 2013). These efforts imply that encouraging artist cohabitation in areas with high vacancy rates could be viable for medium-sized cities often overlooked in the discussion of arts-friendly metropolitan hubs. Evidence is aired showing how internationally, tools for promoting urban cultural spaces or “creative industry clusters” are utilized for both urban growth and governmental revenue generators (Zheng, 2010). Last, Budd, Lovrich, Pierce, and Chamberlain (2008) find evidence that both “a moralistic cultural heritage and strong social capital” are correlated with cities’ sustainability efforts, adding cultural dimensions to the previously discussed environmental and economic development incentives to pursue green policies.

This sampling of scholarship represents the potential for richer research agendas accounting for a dynamic and complex policy space that empirically captures the changing landscape of cultural norms and nonconventionalism. One new framework developed from this shift in thinking is a “typology of spaces” in urban settings and their relation to the types of tolerances in given cities (Chiodelli & Moroni, 2014). This adaptation of pluralism recognizes tolerance as not just a phenomenon produced by social sorting, but a product of the types of interactions between individuals within social spaces. In other words, the different degrees of interaction required by different, more shared public spaces may influence the levels of tolerance. As such, the subcategories of public and private spaces within urban areas can be a fruitful way to operationalize the degree to which forced interactions relate to whether tolerance is *morally required* out of recognition that people are fundamentally due respect, or *prudentially desirable* to reduce conflict and smooth over societal rifts. In this sense, tolerance can be conceptualized via a spatial dimension.

These studies raise intriguing questions about the potential for diversity and tolerance to affect realignments of coalitions for exercising political power. When economic conditions change, the presence of more varied and autonomous social cleavages could mean policymakers are more likely to respond to ideological or lifestyle preferences than purely political-economic business pressures (Rosdil, 2010). In

other words, the deindustrialization of cities means rethinking the classic growth regimes as policymakers become more responsive to quality-of-life and social issues. To what extent does postindustrialism in cities which have seen manufacturing employment sectors decline render older theories of clientelism obsolete? Does it augment or supplant urban political economy? A key question since the 1990s has been whether this so-called "New Political Culture," defined by citizen sensitivity to women's and gay rights, environmentalism, abortion, and other issues, is restricted to urban settings that share higher levels of affluence and education (Clark & Hoffmann-Martinot, 1998). Or, can the rise of cultural politics generally augment political-economic explanations for policy decisions in less affluent cities, too? Some scholars argue the postindustrial trends are leading to the creation of New Political subcultures generally, although the empirical testing of such hypotheses has been limited so far. Others go so far as to consider cultural amenities a new form of development policy which is replacing the "smokestack chasing" economic-development strategies of the 1970s (Horrigmo, 2013). Horrigmo's analysis of Norwegian cities' cultural spending finds evidence that cultural variables including secularism, unmarried households, and tolerance have more power to explain spending on cultural amenities such as libraries, cinema, sports infrastructure, and museums, than traditional political and economic variables. In the U.S. context, Owens (2010) finds evidence in a statewide survey of Georgia that willingness of people to support regional goals and resource-sharing is influenced by their religious affiliations and salience of religiosity. Specifically, adherents to more liberal religious traditions, such as Black Protestants and Catholics, were more supportive of regional goals such as air, water, and green-space protection. Collectively, these "culture explaining culture" findings highlight the need for developing more generalized empirical modeling that incorporates cultural influences into political and economic analyses of urban growth.

"Back to the Basics" in Urban Governance

Urban studies has found a renewed energy and purpose as scholarship has focused on new service obligations municipalities are confronting. But, the future of the field may also be one in which a refocused effort is placed on the basic functions of successful local governance. Elaine Sharp (2014) argues that areas such as public infrastructure and policing are ripe for a "back to the basics" approach for urban politics. She makes the case that public infrastructure systems (roads, sewers, bridges, etc.) remain the vital physical means for delivering public services, they are in sub-par condition in the United States due to underinvestment, and climate change impacts on cities may require that they be re-engineered in the future. Sharp continues that urban policing has been ceded to the topically specialized criminal justice field, in which political variables of interest to urban politics scholars may be omitted. From an equity perspective, both topics would benefit from renewed data collection on how infrastructure placement and policing activities relate to communities of racial minorities.

One potential future strategy for tackling this research challenge would be to organize inquiry around the relationship between people and spaces. Scholars are increasingly curious about how diversity and equity may be related to the often limiting or oppressive physical spaces of cities (Frug, 2014). A framework developed by Kim, LaGrange, and Willis (2013) takes into account the sociological influences of “place” and “space” in differentiating the geographical coordinates of neighborhoods from the “people, practices, objects, and representations” which become “emplaced” within it. The Kim et al. framework combines the sociology of place with environmental criminology, improving upon the “broken windows theory” of gang violence and why criminal activities are more likely to remain entrenched in certain neighborhoods. They argue crime committed closer to the offenders’ place of residence is more likely to be “expressive” in defense of home turf or perceived ego challenges, and therefore more violent, than “instrumental” criminal activities aimed at material gain. These types of innovative theoretical applications have obvious public service delivery import for deployment of differential crime prevention strategies, from public lighting and cameras for discouraging the materially motivated space-based crime to increased community policing for place-based crimes. But, they may also provide an avenue for examining why some citizens choose to engage in the policymaking process and others do not.

Another classic question is the time-honored question of how to engender public participation in governmental decision making. Community participation has been long viewed as an important component of overcoming poor urban service delivery by more effectively communicating “street level” conditions to elected officeholders and administrators (Berry, Portney, & Thomson, 1993). Civic engagement is also one of the by-products advocates of “community building” efforts in inner cities have espoused for decades. Yet, community participation mechanisms have also been criticized for being theoretically and empirically naïve. In a study of three Chicago mixed-income housing developments, Chaskin and Joseph (2010) argue that arrangements intended to foster resident participation “seem largely to reinforce rather than break down divisions” between renters and owners, and low- and high-income neighbors.

Citizen participation organizations, according to critics, represent a “local trap” due to their propensity to over-represent higher socioeconomic status (SES) classes, thus affording higher income enclaves more avenues to make their preferences heard (Purcell, 2006). Jun and Musso (2013) present evidence that contradicts Purcell’s “local trap” thesis, which expects local participation organizations will advantage the property interests of middle-class homeowners. By analyzing 4,000 meeting agenda items from neighborhood councils in Los Angeles, the authors find evidence that neighborhood councils in both high- and low-income neighborhoods confronted undesirable land-uses, even though the membership of LA’s neighborhood councils was considerably wealthier, more educated, and composed of more whites than the mean resident of Los Angeles. Although the validity of the findings should be explored in other areas, the insight that disproportionate representation within community organizations by higher socioeconomic classes may not result in diminished agenda-setting ability for lower SES groups is an important advancement.

Trounstone (2013) finds evidence that cities with low-turnout institutions including early voter-registration requirements, different municipal election dates from federal levels of government, and polling-location ambiguity are associated with higher proportions of incumbents running and winning re-election. These low-turnout environments demonstrate policy outputs that are beneficial to particular community subgroups.

Access to local government information also has an effect on voter turnout. Filla and Johnson (2010) study the influence on local news coverage of municipal elections in municipalities within Los Angeles County and find that restrictions in access to news coverage are associated with lower voter turnout. Specifically, they use a media market filter to examine the dearth of local government news coverage in communities without their own local outlets. Respondents living outside Los Angeles whose communities have daily newspapers are more likely to vote than those who do not. Answering the questions of how to engender public interest and engagement in urban decision making—as an elector, gadfly, community organizer, protestor, or adviser—will undoubtedly remain a critical yet cumbersome research focus in future years.

Conclusion

Mobility remains a dominant feature of policies aimed at solving the plights of urban settlements. Yet, scholarship is moving toward establishing systemic research interests around the concepts of cultural development as urban revitalization, sustainability, and equity in service provision. Urban research has found new life as cities have confronted new challenges. It has also returned home to classic questions of who governs and how well cities handle the basics. These research veins are increasingly interrelated as metropolitan regions accelerate collaborative efforts to share services and reduce externalities; steer economic development back toward urban power centers; and as inner cities blend economic growth objectives with the growing demand for sustainable development of energy, food, water, and other resources. While urban studies remain “contested terrain” theoretically, research continues to coalesce around prescriptive solutions to problems for both growing and shrinking cities.

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