Regulatory Implementation: Examining Barriers From Regulatory Processes

Peter J. May
University of Washington

Abstract

This article addresses the effects of regulatory processes on the availability and affordability of housing. One concern is delays in construction and the rehabilitation of housing related to red tape. Another concern is the effects of the added burdens of regulatory implementation in discouraging housing development or rehabilitation in the first place. Understanding how to lessen these barriers is one foundation for development of policies for advancing affordable housing. Promising directions for reform include regulatory and administrative process simplification, conflict reduction and consensus building, smart enforcement, and facilitative reviews and inspection. Bringing about these changes presents a variety of policy challenges of which the principal one for federal policy is the limited federal role with respect to state and local governmental regulatory processes.

Introduction

This article draws attention to the ways that the pursuit of regulatory goals concerning such subjects as the safety of buildings, environmental protection, historic preservation, and land use affect the availability and affordability of housing. Over the past 35 years, several national commissions concerned with affordable housing (for example, Advisory Commission on Intergovernmental Relations, 1966; National Commission on Urban Problems, 1968; Advisory Commission on Regulatory Barriers to Affordable Housing, 1991; Millennial Housing Commission, 2002) have addressed this topic. Despite the consistency of the findings of these reports, the ways that different regulations act as barriers to various aspects of housing are not well understood.

The barriers to affordable housing posed by regulatory processes are lesser-studied aspects of these concerns. Consideration of regulatory processes draws attention to two barriers. The first barrier includes delays in construction and rehabilitation of housing related to cumbersome decisionmaking processes. Delays add to the costs of construction and, in turn, affect the affordability of housing. The second barrier discourages housing development or rehabilitation in the first place, lessening the availability of housing in those locations that developers avoid; it also can lessen the overall supply of housing rather than shifting it to other locations.

Cityscape: A Journal of Policy Development and Research • *Volume 8, Number 1 • 2005*
U.S. Department of Housing and Urban Development • Office of Policy Development and Research

Cityscape 209

This article reviews different types of regulatory process barriers, advice concerning how to lessen these barriers, the policy challenges associated with bringing about these changes, and research needs. The degree to which various sources of regulatory barriers affect the availability and cost of housing is largely unknown. Many of these aspects have not been studied and the studies that exist rarely separate the effects of the substance of regulations from their implementation. Although few prescriptions emerge from the housing literature about reducing regulatory process barriers, this article addresses the relevance of insights provided by regulatory scholars who have studied reforms of regulatory practices more generally. Identification of necessary research to advance policy and other actions aimed at alleviating regulatory process barriers sets the foundation for considering future research.

Considering Regulatory Process Barriers

A variety of regulations potentially impinges on different facets of availability and affordability of housing (for an overview, see Schill, 2002). Land use and zoning provisions affect the location, density, and types of housing allowed. Environmental and other impact assessment requirements further affect the location and types of development allowed. Building safety regulations, along with disability provisions, energy codes, historic preservation requirements, asbestos and lead paint abatement provisions, health and safety provisions, and housing codes, govern various aspects of new construction and rehabilitation of buildings. A variety of procedural requirements affects who has a voice in determining how and when structures are built or rehabilitated.

In considering the barriers that implementation of these regulations pose for affordable housing, reviewing what the development community views as the key barriers is useful. That understanding provides a basis for more systematic review of the relevant regulatory process barriers. No matter the type of regulation being considered, the role of regulatory approvals, hearings, enforcement, and administrative structures need to be considered.

Concerns of the Development Community

The concerns of the development community and housing advocates have been well represented in the reports of the various national commissions considering barriers to affordable housing. These reports highlight frustration over delays and disruptions that limit the availability of affordable housing. Few of these studies, however, separate the effects of regulatory provisions from the way in which they are administered. As a consequence, drawing conclusions about the magnitude of the barriers posed by regulatory processes is difficult.

The most common approach to identifying these concerns is to survey firms or regulators about their impressions of regulatory impediments. For example, the National Association of Home Builders (NAHB) found in a 1998 survey of association members that 10 percent of the cost of building a typical new home is attributable to unnecessary regulation, regulatory delays, and fees (U.S. House, Committee on Small Business, 2000). In more refined research based on profiles of development costs for new residential subdivisions in New Jersey, Luger and Temkin (2000: 140–141) estimate that the "direct cost of excessive regulation" imposed by delays added expenses for construction and impact fees, and increased financing costs by $10,000 to $20,000 per new housing unit (in 2000 dollars).

A variety of surveys of different constituencies in the housing and development industry evidence concerns about regulatory burdens.[1] Nearly three decades ago, Field and Rivkin (1975) published *The Building Code Burden*, which provided an indictment of building

codes as impediments to innovation in housing and construction. Their survey of home manufacturers revealed that 69 percent cited building codes as one of the top three problems limiting innovation in construction practices—the highest percentage of any item (Field and Rivkin, 1975). To assess trends for different concerns over time, Ben-Joseph (2003) replicated key elements of a survey undertaken in 1976 by Seidel (1978). In both the 1976 Seidel survey and the 2002 survey by Ben-Joseph, nearly three-fourths of the development community respondents cited "government-imposed regulations" as one of the three most significant housing problems.

Delays in permitting and construction are clearly noteworthy concerns. Developers of subdivisions who participated in Ben-Joseph's study (2003) reported waiting an average of 17 months for relevant permits. One-fifth of the respondents reported waiting more than 2 years. In a study of motivations for building-code compliance by homebuilders in western Washington, May (2004) found that a primary motivation for compliance, cited by 76 percent of the respondents, is avoidance of delays in construction. Luger and Temkin (2000) provide insights about the sources of delay for residential development in their surveys of regulators in New Jersey and North Carolina.[2] "Organized citizen opposition" to subdivisions was cited by the greatest percentages of respondents, followed by contractor or development error, inadequate staffing, and unspecified sources of delay in negotiations (Luger and Temkin, 2000: 57). In response to other questions, from one-third to more than one-half of the respondents cited complexity in regulations or regulatory processes as a major factor in delays in regulatory approvals (Luger and Temkin, 2000).

Inconsistencies in regulatory requirements and inspections constitute another set of noteworthy concerns. More than three-quarters of the residential homebuilders surveyed by May (2004) cited these inconsistencies as a constraint on code compliance. "Unnecessary delays" and the impacts of "local administrative discretion" each were cited as the most burdensome aspect of regulation by approximately one-quarter of the respondents in both the 1976 and 2002 studies summarized by Ben-Joseph (2003: 7). These are all different ways of communicating concerns about lack of coordination and inconsistencies in interpretation of rules.

Citizen opposition to affordable housing development was highlighted by the Advisory Commission on Regulatory Barriers to Affordable Housing in the title of their report, *"Not in My Back Yard": Removing Barriers to Affordable Housing* (1991). That commission cited the "not in my backyard" atmosphere in which groups opposed to affordable housing have slowed or blocked the expansion of such housing.

Among recent studies, only the Luger and Temkin research (2000) specifically asked about citizen opposition. More than one-half of New Jersey regulators and more than one-third of North Carolina regulators cited citizen efforts as a reason for delays in subdivision applications. Interestingly, only 9 percent of the residential developers Luger and Temkin surveyed in New Jersey cited "organized citizen opposition" as a reason for delay, with another 15 percent citing "individual/isolated opposition" as a consideration (2000: 57).

Barriers Posed by Regulatory Approval Processes

Those seeking to develop new housing or rehabilitate existing housing undergo a regulatory gauntlet similar to the following to obtain necessary approvals:

- A series of pre-approval meetings to discuss the outlines of the proposed development, the process to be followed for approval, and preliminary negotiations over the development itself.

- Submission of application materials that detail plans, alternatives, and adherence to the variety of relevant regulations concerning land use and location of the property; environmental considerations and remediation of potential harms; adherence to local codes concerning visual appearance, utilities, and roads; adherence to building regulations; and, in the case of housing rehabilitation, consideration of potential environmental considerations, such as asbestos removal.

- A variety of special studies to support the application materials that may include separate environmental reviews, engineering assessments, traffic studies, and other technical backup.

- Community or other hearings by approval boards to register concerns about the proposed development.

- Approval decisions that contain conditions placed on the development that must be met before receiving necessary permits or other approvals; these may be appealed to hearing examiners or other quasi-judicial bodies.

This is clearly a stylized depiction of the long gauntlet of regulatory approvals prior to initiation of major housing developments or rehabilitation projects. Further complicating the situation is the lack of a single approval process. Instead, developers must deal with multiple agencies and approval processes that relate to separate regulations governing land use, building safety, environmental considerations, and other regulations.

In most instances, decisionmaking for approvals is highly prescribed by relevant regulations with respect to the participation of different groups, locus of decisionmaking, and appeal procedures. Regulatory approval processes typically entail discretion granted to regulatory agencies to make decisions that are subject to administrative law review (for example, by a hearing examiner), appeal to political authorities for variances (for example, a city council), and options for legal contests (for example, through civil courts). In some settings, separate appeals committees with quasi-judicial authority have been established to handle such topics as growth management disputes (for example, Washington State Growth Management Hearings Boards) and implementation of requirements for affordable housing set-asides (for example, Massachusetts Housing Appeals Committee).

The delays associated with these processes are central concerns of the development community. Other than the research noted above documenting delays, however, only a limited understanding exists of the effects of different aspects of approval processes and duplication. The findings about these delays are largely anecdotal. For example, in commenting about the high costs of new housing construction in New York City, Salama, Schill, and Stark wrote:

> "Because the Buildings Department is the single most important agency in the development process, its management and operations need to be as efficient as possible. In fact, the New York City permitting process is not—the process is arcane, cumbersome, confusing, complicated and paper-intensive" (1999: 108).

The extent to which groups are able to use the regulatory process to avert new housing is especially difficult to gauge. Examples of groups using public hearings concerning environmental, zoning, or other regulatory aspects to construct roadblocks to planned multi-family developments are not hard to find (see Euchner, 2003; Field, 1997). Without specific knowledge of the circumstances of the actual situations, however, evaluating whether known examples represent fundamental problems in regulatory administration or simply particular instances of outright opposition is difficult.

Barriers Posed by Regulatory Practices

Great differences exist in how vigilantly regulatory agencies enforce regulations, their approach to enforcement, and the actions of inspectors in the field. Although the regulatory literature is still somewhat unsettled about distinctions in regulatory strategies and philosophies, a broad distinction can be made between strict and "by-the-book" approaches and more facilitative and "business-friendly" approaches (Kagan, 1994; May and Burby, 1998). The former entails strict enforcement and formal processes, while the latter entails cooperative enforcement and facilitative practices. The term "business-friendly" could suggest a strong, pro-development stance on the part of elected officials and regulatory agencies. This article, however, uses the term to characterize a regulatory agency approach entailing a supportive regulatory regime that helps developers negotiate the regulatory gauntlet. The issue of regulatory enforcement approaches crosscuts different types of regulations.

Exhibit 1, based on data employed in the analyses reported in May and Burby (1998) and Burby et al. (2000), shows the variation among cities and counties across the United States in enforcement philosophies and strategies for building regulation. Each data point shows how the regulatory practices of a given jurisdiction score with respect to systematic and facilitative practices. The categories of agency enforcement strategies reflect the degree of emphasis that each jurisdiction places on systematic and facilitative practices. Jurisdictions with scores on the upper left quadrant of the exhibit have a more business-friendly approach, while those in the lower right quadrant have a more by-the-book approach.

Exhibit 1

Building-code Agency Enforcement Philosophies and Strategies
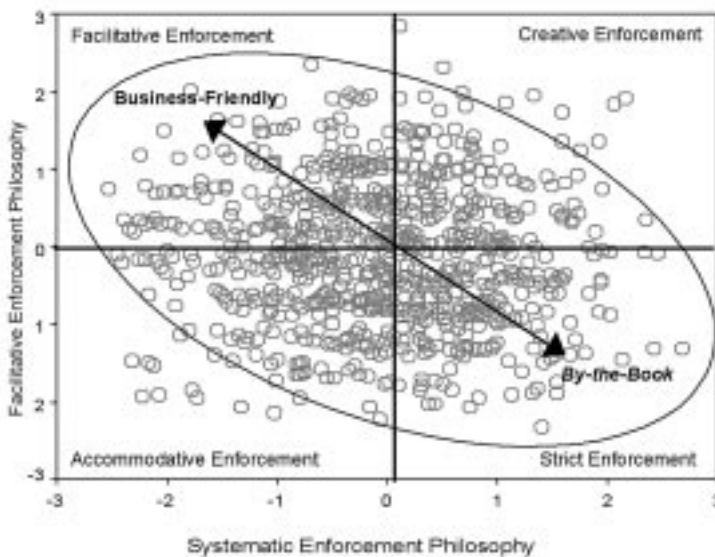
Note: Each circle represents the philosophy and strategy employed by a local building-code enforcement agency based on a national sample of city and county agencies. The scales show relative differences in approach. The oval and endpoints of the arrow show degrees of the extent to which both philosophies and strategies are either business-friendly or by-the-book.

Source: Author, adapted from May and Burby (1998) and Burby et al. (2000)

Critics of regulatory excess presume that the by-the-book approach presents unnecessary delays that drive up the cost of housing and, in the extreme, creates a business climate that deters development (see, in particular, Downs, 1991; Field and Rivkin, 1975). The business-friendly approach, as the label suggests, is expected to facilitate development and rehabilitation by easing the restrictions of the more intrusive and burdensome by-the-book approach.

Also relevant is the role of inspectors' enforcement styles. Enforcement style communicates the reality of the regulatory philosophy of a given jurisdiction or regulatory authority. A tough enforcement style, marked by higher formalism and less facilitation in regulatory interactions, may signal a by-the-book approach that is offputting to developers. A flexible enforcement style may signal a more business-friendly regulatory climate and encourage development. As such, these expectations about enforcement styles parallel those noted above for enforcement philosophies and strategies.

A final consideration for regulatory practices is the role of corruption in building regulation. Although determining the extent of corruption is especially difficult, the subject has been a longstanding concern among developers and regulatory officials. A national survey undertaken by May and Burby (1998) found that 13 percent of building officials volunteered that their jurisdiction experience corruption in building regulatory practices within the prior 10 years. Bryan Jones (1985) found that past experiences with corruption in building functions in Chicago were important reasons for the tightening of managerial processes, leading to greater formalism and delays in the process. Salama, Schill, and Stark (1999: 141–143) concluded that several types of corruption—bid rigging, bribes to union officials and municipal employees, and disruptions by labor coalitions—added to the cost of new construction in New York City.

Barriers Posed by Fragmented Administrative Structures

Regulations tend to get layered on one another over time in response to particular demands or crises according to what Bardach and Kagan (1982) label a "regulatory ratchet." New organizations are often created as new regulations are added or new provisions developed. The result can be a patchwork of different agencies haphazardly administering a variety of different regulations.

Because different levels of government administer various regulations, some overlap in regulatory functions is inevitable. Thus, for example, permits associated with development in areas with wetlands may require review by the U.S. Army Corps of Engineers, along with parallel reviews by the U.S. Environmental Protection Agency, as well as corresponding state and local agencies. Duplication within a given level of government reflects assignment of regulatory functions to different agencies at that level. Vertical and horizontal fragmentation of functions, commonly cited as an inherent aspect of U.S. governance, clearly adds to the complexity of regulation.

Numerous anecdotes illustrate how duplication of administrative structures and gaps in regulatory decision processes frustrate regulatory implementation. For example, Euchner highlights the impacts of regulatory fragmentation as barriers to housing in the Greater Boston area:

> The lack of integration [of regulations] at the state level [then] can lead to confusion among local enforcement authorities such as building inspectors, fire chiefs, and boards of health and increase the number of appeals boards in front of which a builder has to appear. The process is especially complex (and confusing) in the case of environmental and handicap access regulations.

Public officials also regularly defer to "community process" when controversial projects are proposed. Many cities and towns specifically require that projects undergo community scrutiny, even when the projects fit into the existing look and feel of the neighborhood. Community process can be especially problematic in small communities with volunteer governance structures like town meeting and little professional staff in town hall (2003: 7).

Potential duplication of regulations and inconsistencies among regulatory authorities specifically address administrative structures. A well-developed tenet of the implementation literature is that decision structures entailing multiple decision points—across levels of government, among agencies at the same level of government, or both—frustrate effective implementation (Pressman and Wildavsky, 1972). These decision points, at a minimum, introduce delays as decisions are made and remade. More often, they introduce multiple opportunities for vetoes of policy decisions or implementation actions.

Toward Solutions: Evaluating the Evidence

Understanding how to lessen the preceding barriers is the foundation for developing policies for advancing affordable housing. Although few prescriptions emerge from the housing literature on these topics, scholars who have studied reforms of regulatory practices provide key insights (in particular, see May, 2002; Sparrow, 2000). We review several key directions below, with attention to relevant research findings and their implications for affordable housing.

Regulatory and Administrative Process Simplification

In recent years, a number of states and localities have launched efforts to streamline regulatory functions as part of efforts to enhance business climates and economic development opportunities. A 1998 HUD-sponsored survey reported that 24 percent of local code administrators had initiated efforts to streamline enforcement (University of Illinois, 1998). These efforts include electronic permitting, delegation of enforcement to third parties, and administrative reorganizations to combine regulatory functions.

Electronic permitting and "one-stop" permits are aimed at reducing duplication of approvals and cumbersome decision processes. The National Alliance for Building Regulatory Reform in the Digital Age cites the work of nearly two dozen counties and states that have adopted technology for integrating one or more aspects of permits, inspection, enforcement, licensing, and plan review using a mix of proprietary and commercially available technology.[3] The benefits of these and other changes have not been systematically analyzed, but the following anecdotal evidence provided by the Alliance shows substantial improvements (National Conference of States on Building Codes and Standards, 2003):

- Streamlining of regulatory functions by the City of Los Angeles resulted in reductions in waiting times by a factor of nearly 10 for processing of permits, plan checking, and inspection scheduling.

- Use of integrated permit forms and processes among jurisdictions in the three-county Portland, Oregon, area resulted in a substantial reduction of delays and confusion caused by the prior fragmentation of services.

- Use of online processing of permits and inspection requests by Fairfax County, Virginia, achieved $1.5 million in operational savings for these regulatory functions in 2001 and reduced permit processing times on average from more than 4 hours to less than 1 hour.

A National Institute of Building Sciences report on electronic permitting cites more than 100 jurisdictions as "known leaders" in electronic permitting (2002: 3–5). Recent scholarship in public administration provides a broader discussion of both the promise and pitfalls of e-governmental reforms (Ho, 2002; Moon, 2002). The examples above show how technology can be used to streamline regulatory processes and overcome the barriers of fragmented regulatory authorities without necessitating major reorganization of those functions. How these changes affect the regulatory environment remains to be examined.

Enforcement delegation and third-party certification speed up regulatory processes by expanding the resources available to regulatory agencies. For example, engineers hired by cities to conduct inspections of engineered structures or peer reviews of development applications compensate for limitations in agency staff. Third–party use, in principle, can be expanded to include private certifiers to review plans, conduct inspections, and perform audits of regulatory compliance. Some smaller jurisdictions in the United States currently contract out for these services. New York City allows "self-certification" of building applications and plans, final surveys, and other considerations for certain classes of buildings by registered architects and professional engineers (Salama, Schill, and Stark, 1999: 111–112).

The experience with energy conservation and radon reduction in the United States provides instructive examples of the use of third-party certification of regulatory compliance. In both cases, private certifiers play important roles in evaluating problems, certifying compliance, or both. The more problematic part of a system of third-party certification is monitoring the quality of third-party actions. Some form of external monitoring by regulators is required, as well as self-policing by industry groups or use of liability or financial mechanisms. For example, New Zealand suffered a "leaky building" crisis in which some 20,000 homes and hundreds of apartment buildings developed structural failures from water infusion. As discussed by May (2003), a key source of the leaky building problem was that poorly trained consultants were given authority to sign off on adherence to code provisions. Had proper inspection been undertaken, many of the problems would have been resolved earlier.

This energy conservation and radon reduction experience provides a good understanding of the issues involved with greater reliance on third parties for providing regulatory approvals. The benefits of such delegation for reducing delays in regulatory approvals and production of affordable housing more generally have not been systematically addressed.

Administrative reorganization seeks to reduce duplication of regulatory programs and organizations, which presumably has the benefit of reducing delays associated with the need to deal with multiple agencies. The relevant organizational issue is the degree to which regulatory functions are integrated. The most obvious method to integrate administration is to have compatible regulatory functions performed by the same agency. This integration has been typically accomplished by combining planning and permit functions at local levels of government so that planning approval, permit issuance, and inspections are administered by the same organization.

A second approach is to coordinate functions across different agencies. Advances in e-government make it possible to have a virtual integration of regulatory functions without necessitating administrative reorganization. The appointment of a central administrator with responsibility for overseeing the integration of regulatory functions can facilitate coordination. For example, some cities appoint "permit czars" charged with cutting through bottlenecks in regulatory processes. These czars serve roles that the implementation literature refers to as "fixers" for implementation problems.

Like other aspects of regulatory simplification, the implications of administrative simplification at local levels of government for housing have not been systematically studied. The broader literature on implementation suggests that administrative simplification or coordination is necessary for reducing delays, but do not guarantee that delays or other problems will be eliminated. In particular, rearranging the organizational boxes does not necessarily reduce turf considerations and other bureaucratic hurdles. A transformation of organizational cultures and routines is necessary to overcome these constraints.

Conflict reduction and consensus building are more difficult to address. As noted by Burby, citizen involvement in planning, and by extension in development and housing decisions, "tends to be dominated by an 'iron triangle' composed of local business and development interests, local elected and appointed government officials, and neighborhood groups" (2003: 38). The structure of interaction between these groups can profoundly affect both the timeframe and character of planning and other regulatory decisions.

Extensive discussions of different forms of stakeholder involvement have occurred in recent years in the planning literature and the literature on environmental decisionmaking (Beierle, 2000; Beierle and Konisky, 2000; Burby, 2003). Given the diversity of approaches, a simple taxonomy of different forms of stakeholder involvement cannot be created. Relevant processes include such elements as different types of advisory committees, facilitated forums, systematic canvassing of groups, and structured deliberation. Participation by a diverse set of stakeholders helps anticipate and raise issues that might not otherwise be identified. More voices, however, are not necessarily conducive to rapid decisionmaking. The result may be a better policy, but the process may be frustrating and drawn out. The consensus of the evolving literature on stakeholder involvement is that a shared commitment to broad stakeholder involvement *and* joint resolution of disputes is more important for effective outcomes than the specifics of the mechanisms for involvement.

Conflict resolution and other negotiation processes have been employed to lessen the delays and undesirable outcomes that follow from contentious decision processes. Field (1997) argued that joint problem solving that uses mediation and "principled negotiation" can help overcome impasses created by groups that oppose affordable housing developments. Field illustrated the successful use of these processes to secure agreements about affordable housing in Hartford, Connecticut. Although extensive literature addresses negotiated decisionmaking and stakeholder involvement (Beierle and Cayford, 2001), little research specifically addresses negotiating conflicts over affordable housing.

Smart Enforcement: Regulatory Approaches Matter

One of the main changes in thinking about regulation in recent years is a shift in perspective from considering ways to strengthen enforcement to addressing ways to improve compliance. The terminology for this shift includes "smart enforcement" (Sparrow, 2000: 181–193), "responsive regulation" (Ayres and Braithwaite, 1992), and "business-friendly enforcement" (Burby et al., 2000). Although the specific actions differ, the basic goal is to reduce particularistic, by-the-book approvals and enforcement and rely more on facilitative actions in regulatory approvals and enforcement. Most of the literature on these topics is concerned with the effect of regulatory approaches on regulatory compliance.[4] The research about enforcement strategies reviewed in this article provides evidence that changes in regulatory practices can enhance housing availability.

Research on the effects of building regulation on central city development provides important insights for affordable housing. Burby et al. (2000) consider the effects of regulatory approaches on economic development in central cities, in particular the extent to which regulatory practices deter development in the first place. Exhibit 2 summarizes the

findings for the effects of different regulatory approaches on single-family, detached residential construction.[5] The calculations of change in construction activity shown in exhibit 2 are based on multivariate findings by Burby et al. (2000) that control for differences among central cities in demand for housing, development opportunities, development costs, indicators of the quality of life (that is, crime, poverty, and schools), and metropolitan-area characteristics.

Exhibit 2

Effects of Enforcement Choices on Success of Central Cities in Capturing Single-family Residential Construction, 1985–95

	Percent change in construction activity	
Enforcement choices	**Number of units**	**Value of units**
Enforcement philosophy:[a]		
More business friendly	9.1%	8.8%
Enforcement strategy:[b]		
Strict	base case	base case
Creative	– 1.7	– 0.7
Facilitative	7.3	8.1
Accommodative	9.0	8.7
Enforcement level of effort:[c]		
Stronger	0.3	1.8

[a] Entries show the effects of changes of moving from the highest quartile to the lowest quartile of all cities for the systematic enforcement philosophy.
[b] Entries show the effects of changes associated with each strategy relative to the base case of a strict enforcement strategy.
[c] Entries show the effects of changes of moving from the lowest quartile to the highest quartile of all cities for enforcement effort.

Source: Burby et al. (2000): 153

The findings in exhibit 2 directly address the impacts of agency-level regulatory practices on housing. The conclusions from this research are particularly germane and, thus, warrant quoting:

> Adopting business-friendly approaches will not reverse the movement of industrial, office, and retail businesses from central cities to the suburbs. But these approaches can help cities attract more single-family detached housing (and the population that comes with it) and spur more commercial rehabilitation projects. The percentage gains in construction activity that can be achieved are not large—about 5 to 10 percent. Because home building and commercial rehabilitation account for about 70 percent of construction activities in metropolitan areas, however, the absolute amounts of additional construction activity central cities can capture is large enough to merit attention (Burby et al., 2000: 154–155).

Although these findings are supportive of arguments made by those advocating less rigid and more business-friendly regulatory practices as ways of advancing affordable housing, the failure to find an effect on multifamily housing is an important limitation that needs further exploration.

Current research by Burby and Salvesen for the Fannie Mae Foundation addressing the impacts of New Jersey's rehabilitation code suggests that rehabilitation can be spurred by "smart codes" and flexible enforcement.[6] Smart code provisions, first implemented in

1998 through the New Jersey rehabilitation subcode, clarified rehabilitation requirements and reduced some previous requirements for projects to fully meet the code requirements for new construction. These changes also signaled a desire for local governments to adopt a more facilitative approach to regulating the rehabilitation of buildings. Although this research has yet to be published, the findings to date show that New Jersey's efforts resulted in a greater number of rehabilitation projects than under the prior regulations or in the rehabilitation activity of control cities from neighboring states without the smart code provisions. No discernable difference arose, however, in the total value of rehabilitation projects for either set of comparisons. These findings suggest that developers of smaller projects were likely to have been deterred from undertaking rehabilitation by more stringent regulations and regulatory practices that created uncertainty about the standards to be applied to rehabilitation projects.

Facilitative Review and Inspection: Regulatory Practices Count

Housing and rehabilitation specialists express concerns about inconsistencies in the interpretation of rules, drawing attention to actions in the field that affect the ability of housing developers to comply with regulations and enhance cooperation between the developers and regulatory inspectors. The available research provides evidence that inspectors' enforcement styles do have appreciable effects on compliance, understanding of rules by regulated entities, and cooperation between inspectors and regulated entities.

Burby, May, and Paterson (1998) found that a facilitative enforcement approach enhances commitment of residential and non-residential contractors to comply with building codes. May and Wood (2003) provide a more nuanced set of findings from their study of residential contractors in western Washington. The authors found facilitative enforcement styles help foster a better understanding of rules for less knowledgeable contractors, but that advice can be undermined by inconsistencies among inspectors or over time. These findings indicate a downside to the use of "responsive regulation" that calls for flexible enforcement, and toughness only when flexibility fails. In particular, May and Wood wrote, "To the extent that such flexibility fosters inconsistent signals by inspectors across time or across settings, it undermines regulatees' understanding of rules and the development of shared expectations concerning compliance" (2003: 135).

Policy Challenges

Bringing about these changes presents several challenges for federal, state, and local policymakers. We considered the following broad challenges:

- Indirect federal influence.
- Balance of regulatory objectives.
- Constraints in bringing about change.

Indirect Federal Influence

Federal policymakers face a challenging situation in which the implementation of the relevant regulatory programs falls largely within the province of state and local governments. As a consequence, the federal influence in addressing many of the regulatory process barriers and bringing about reforms is indirect—an example of the classic dilemma of shared governance in the U.S. system. On the one hand, federal housing officials want to promote expansion of affordable housing; on the other hand, these efforts rest on actions of state and local officials who do not necessarily assign a high priority to these housing goals. This dilemma explains why the recommendations of various commissions on affordable housing have not had more impact in reducing regulatory process barriers.

Several broad avenues of influence can affect change in regulatory processes at state and local levels of government. Federal sponsorship of research can identify the sources of regulatory barriers and means for addressing them. Sharing information and examples of best practices among relevant state and local associations helps diffuse these practices. Examples include HUD's efforts to document barriers to affordable housing (Listokin and Listokin, 2001) and the National Institute of Building Standards to promote adoption of e-permit processes (National Institute of Building Standards, 2002). The federal government could also sponsor demonstration programs at local levels of government that serve as exemplars of regulatory reforms.

Balance of Regulatory Objectives

A second challenge concerns the balance between achieving regulatory objectives for land use, environmental protection, and other nonhousing goals with achievement of affordable housing goals. The lack of a consensus about affordable housing goals, particularly at local levels of government, seems to tilt this balance toward the regulatory objectives. Field has argued that a breakdown exists in the national consensus over the goals of affordable housing. He writes: "Today, proponents of affordable housing must negotiate with diverse and sometimes hostile parties to secure project approvals. Discussions are frequently adversarial, and stalemate is often the result" (1997: 801).

Just as some community groups and local elected officials are reluctant to restrict land use for environmental protection (Burby and May, 1998), others are reluctant to endorse and carry out affordable housing programs. Simply put, the problem is that many communities lack a meaningful political constituency for affordable housing. Instead, a stronger coalition argues against it, often operating under the guise of pursuing other, more important goals. As a consequence, local officials either need to be cajoled into creating programs by state mandates or court orders (as in Massachusetts and New Jersey) or constituencies need to be fostered. Mandates are often ineffective because they are circumvented with token compliance. Fostering constituencies is difficult. But, as discussed by Burby (2003), participation in planning processes is one mechanism for building constituencies around community goals. When done well, participation in planning processes can be a vehicle for planners to raise issues and citizens and community groups to express their concerns.

Constraints in Bringing About Change

A final set of policy challenges stems from the constraints on regulatory reform at local levels of government. Although local practices are not immutable, they have developed over time in response to specific demands and needs that provide impediments to achievement of local regulatory reforms. In general, regulatory practices are shaped by broader objectives of local governments (for example, whether to promote development or limit it) and the internal workings of regulatory bureaucracies that operate out of the glare of visible political debates. Studies of the adoption and enforcement of building codes at the state level (May, 1997) and local levels (Burby and May, 1999; May and Birkland, 1994; May and Feeley, 2000) reinforce the importance of political considerations, economic realities, and problem context in affecting regulatory choices.

These studies reveal that reforming regulatory practices is not a simple undertaking. Legal considerations constrain efforts to increase flexibility and discretion in regulatory approaches and practices. Local officials open themselves to litigation if administrative procedures are not followed in full or actions are inconsistent. Perhaps the largest constraint is the inertia of bureaucracy. Studies of housing code enforcement undertaken by Ross (1995) and of field practices in building regulation by May and Wood (2003) and Wood

(2003) highlight the important role that inspectors' values and attitudes play in determining what regulations look like in practice. Changing these values and attitudes to reflect more business-friendly and flexible regulatory approaches is likely to be difficult.

Gaps and Research Needs

The indirect influence of federal actions over regulatory processes at state and local levels of government draws attention to the important federal role in sponsoring research about regulatory process barriers and ways to overcome them. The preceding discussion evidences a much better understanding today than a decade ago about aspects of regulatory barriers to housing. Advances have been made in understanding the concerns of developers and others about regulatory barriers, the ways that choices by regulatory agencies and field personnel affect potential development, and the procedural roadblocks and decision considerations. Nonetheless, we suffer from a number of gaps in understanding the problem and the steps to address it. Exhibit 3 summarizes the gaps and the related research needs suggested.

Exhibit 3

Gaps and Research Needs

Issue	Research Gap	Result of Research on Topic
A. Understanding of regulatory process barriers		
Cost of regulatory process barriers to housing goals	Understanding of the true costs of regulatory process barriers as distinguished from other sources	Basis for evaluating relevance of addressing regulatory process barriers versus other barriers
Implications of regulatory processes for regulations other than regulation of building safety	Better understanding of implications of regulatory processes relating to environmental, land use, and other regulations	Broader understanding of regulatory process issues and their implications
Attention to lesser studied aspects of regulatory processes: citizen opposition and fragmented structures	Better understanding of sources of regulatory process barriers	Ways of reducing regulatory process barriers
B. Understanding of solutions to regulatory process barriers		
Administrative e-government reforms and other mechanisms for process simplification	Understanding of the implications of the reforms with respect to more than just administrative efficiency	Better understanding of how to design effective administrative process reforms
Third-party involvement in regulatory administration	Understanding of the potential and limits to third-party certification and other forms of involvement	Potential leveraging of regulatory resources and reduced delays in administrative processing of permits and other reviews
Procedural reforms in regulatory decisionmaking and goal setting	Better understanding of role of mediation and negotiation along with public participation in shaping consensus for affordable housing goals	Ways of addressing opposition to housing developments and forging consensus about housing goals

Exhibit 3 (continued)

Gaps and Research Needs

Issue	Research Gap	Result of Research on Topic
Flexible regulatory approaches	Better understanding of what these entail and how to implement them	Ways of reducing enforcement burdens
C. Consideration of implications of broader regulatory reforms		
Performance-based regulation	Implications for regulatory processes and practices as they affect housing-related goals	Greater flexibility and potentially reduced costs of compliance
"Voluntary" regulation	Implications for regulatory practice and housing-related goals	Less direct governmental regulation

Improved Understanding of Regulatory Process Barriers

Several weaknesses are evident in the research concerning regulatory process barriers. One is the heavy reliance on what developers report as their concerns, which inevitably will be shaped by general impressions of regulations and, thus, subject to bias. A second limitation is the imprecise cost estimates associated with regulatory burdens. Estimates of those costs often lump together costs associated with administrative burdens and legitimate regulatory hurdles, making it difficult to assess the impacts of regulatory inefficiencies. A third limitation is the inability to generalize from these findings to broader, national impacts on housing supply and affordability.

These broad criticisms lead to consideration of three avenues for research that will lead to improved understanding of regulatory process barriers.

Understanding the True Costs of Regulatory Process Barriers to the Availability and Affordability of Housing

The existing research provides an understanding of the sources of the administrative barriers and the types of costs imposed. In particular, Lugar and Temkin (2000) provide estimates of the costs associated with delays, impact fees, and other regulatory provisions from their data about the costs of developing residential subdivisions in New Jersey. These limited data, however, do not address costs on a nationwide basis or account for costs imposed on different types of housing. Many developers complain about the administrative burdens and the costs they impose, but how much of the "housing affordability gap" can be explained by regulatory process barriers is unclear. Understanding this will help put into perspective the degree to which policy should focus on these barriers versus other aspects of regulatory impacts on housing.

The limited research on these topics consists mainly of case studies of the experience in selected jurisdictions with particular types of housing. The advantage of this approach is that it allows for collection of detailed information about different sources of regulatory burdens. The disadvantage is that it provides little basis for generalizing across housing types or jurisdictions to provide a broader understanding of the national situation. Development of this understanding requires more systematic data collection for a sample of local jurisdictions and development types across the country. A carefully constructed study involving a national sample of jurisdictions and housing types could provide a good understanding of the nationwide variation in local regulatory processes and their effects on housing.

Understanding the Effects of Regulatory Practices for Regulatory Areas Other Than Regulation of Building Safety

Studies of regulation of building safety provide much of our understanding of the implications of different regulatory processes. This focus is appropriate because new housing production and rehabilitation of existing housing must comply with relevant building regulations. Yet, as discussed by May and Wood (2003), building regulation differs in two important ways from other regulations. First, inspection is certain (and frequent) for building regulation but is infrequent and sometimes nonexistent for most regulatory functions. Second, building inspection is aimed at identifying and rectifying problems, whereas for most regulatory settings, inspection is primarily aimed at preventing harms.

Research concerning regulatory processes for environmental, land use, and other non-building regulations is necessary to determine if the lessons from existing studies of building regulation also apply to other regulatory areas. This research might consist of a set of analytic studies that compare the differences in regulatory approval and enforcement processes for selected jurisdictions for different types of regulations with particular attention to duplication of regulatory processes. This research would provide a broader understanding of the influence of regulatory processes for affordable housing. It also could provide a basis for commenting about the potential for reducing overlap in regulatory processes.

Attention to Lesser Studied Aspects of Regulatory Processes

The research concerning regulatory processes tends to focus on enforcement aspects of building regulation. Lesser attention has been paid to citizen opposition and its effects, and to the implications of fragmented regulatory structures. Although each of these topics is separate, putting them in context with respect to their contribution to the overall barriers posed by regulatory processes is useful.

The understanding of the impact of citizen (and other group) opposition to affordable housing developments is long on anecdotes and thin in providing insights about the nature of the opposition and its implications. A better understanding of the reasons for opposition is essential for responding to it. Also important is an understanding of the way that regulatory procedures foster what regulatory scholar Robert Kagan (1991, 2001) has labeled "adversarial legalism" in providing veto points for affordable housing. This type of research is perhaps best conducted as indepth case studies of citizen opposition to affordable housing with selection of cases to provide illustrations of different types and degrees of opposition.

The role of fragmented regulatory structures in contributing to frustration and delays is not hard to understand. But, such broad observations provide little understanding of the sources of fragmentation and the constraints in overcoming it. How much of the fragmentation is driven by legal considerations related to procedural considerations specified in regulations beyond the control of local governments? Are some functions better left separate to avoid abuse or increase accountability? This type of research is perhaps best conducted as case studies of organizational arrangements in different jurisdictions with attention to the basis for the organizational structures and their implications for regulatory delays.

Improved Understanding of Solutions to Regulatory Process Barriers

Several avenues for overcoming regulatory process barriers are fruitful to consider for further research. Four such paths are considered in the following paragraphs.

Understanding of Administrative Process Simplification

We lack research that addresses regulatory processes and decisionmaking as these relate to barriers to affordable housing. The anecdotal evidence about streamlining of regulatory processes suggests that substantial reductions in administrative delays can be achieved through use of e-government reforms. That evidence, however, is highly selective and focuses entirely on efficiency considerations. Little is known about how such reforms affect regulatory outcomes, the level of understanding by regulated entities of what is expected of them, and the overall satisfaction with regulatory processes. Studies of developers who have participated in selected jurisdictions' e-government reforms in permit applications and processes are necessary to gain this understanding. These studies are best conducted as surveys of participants, perhaps undertaken in conjunction with sponsorship by one or more local governments of an evaluation of their e-permit reforms.

To date, the emphasis of e-regulatory reforms has been on coordinating regulatory paper flows. Although these constitute major advances in processing of regulatory applications, other advances can and should be explored. In particular, the use of electronic collaboration for predevelopment permit discussions and joint decisions among regulatory authorities have potential for reducing the barriers imposed by multi-agency, serial decisionmaking. This research might best be undertaken as small pilot studies or demonstrations in cooperation with jurisdictions that are interested in such regulatory advances.

Implications of the Use of Third Parties in Regulatory Practices

One response to limitations of staff resources for carrying out review of plans and inspection has been to rely on third parties for these functions. The selected experiences reviewed above provide some understanding of the issues involved when placing greater reliance on third parties for regulatory approvals. The benefits, however, of such delegation for reducing delays in regulatory approvals and for production of affordable housing more generally have not been systematically addressed. The involvement of third parties raises issues concerning certification, accountability, and legal liability.

Research concerning the legal implications—regarding assignment of responsibility and liability—of use of third parties is especially important to undertake. Much can be learned from the selected experiences in the use of professional engineers and registered architects for certifying plan conformance and adherence to various regulatory provisions. A broader understanding of the role of third parties from the literature on energy conservation, radon reduction, and other fields may be useful in drawing policy lessons.

Understanding of Procedural Reforms in Regulatory Decisionmaking and Goal Setting

Perhaps the least understood aspect of regulatory administration is how to effectively use mediation, negotiation, and other problem-resolution techniques for reducing conflicts over affordable housing projects. Extensive literature addresses environmental dispute resolution, but we lack research that addresses the implications of these approaches for housing disputes. The housing-related literature on these topics is long on advocating the use of the techniques and short on evaluating their implications—especially as they relate to addressing disputes involving tradeoffs between housing- and non-housing-related regulatory objectives. Case studies of circumstances in which dispute resolution has been employed for mediating tradeoffs among regulatory goals could provide insights about the strengths and limitations of dispute resolution mechanisms.

A more basic set of issues is the degree of community and local elected officials' support for affordable and other housing goals. Such support is no doubt variable depending on

economic conditions, housing markets, desires to facilitate development, and the extent of environmental and other concerns in a community. Nonetheless, establishing housing goals is an important aspect of land use and community planning. As discussed by Burby (2003), the role of participation mechanisms in establishing those plans is important to consider (Beirle 1998). Research on the role of planning processes and other mechanisms for establishing housing-related goals is important for gaining an understanding of how to build consensus around housing issues. This type of research is usually undertaken by considering planning processes and resultant plans across communities that have made efforts to address affordable housing.

Carrying Out Flexible Regulatory Approaches

One of the key research findings noted above is that of Burby et al. (2000) in showing that business-friendly and flexible regulatory approaches have positive payoffs with respect to encouraging development of housing in central cities. Indeed, the notion of flexible regulatory approaches is not new. Ahlbrandt (1976) cited the virtues of flexible code enforcement for neighborhood preservation more than 25 years ago. More recently, regulatory scholars such as Ayres and Braithwaite (1992) and Sparrow (2000) have endorsed variants of flexible approaches that involve situational monitoring of compliance, results-oriented enforcement of code requirements, and the use of sanctions only when required. Yet, we do not really understand the definition of a flexible approach, nor do we know how best to enact it.

Advances in thinking about this approach require a better understanding of how different tools of enforcement (for example, use of sanctions, incentives, and provision of information), priorities for enforcement (for example, who is targeted and what is inspected), and the degree of effort involved in carrying out enforcement (for example, the allocation and leveraging of enforcement resources) add to or detract from a business-friendly regulatory climate. Creating this climate, however, entails more than simply specifying what choices enhance that approach. As discussed by Sparrow (2000), fundamental changes in the culture of regulatory agencies are required. And, as noted above, legal constraints relating to administrative due process considerations and equitable treatment of regulated entities may constitute barriers.

Research is required that considers the value and feasibility of flexible approaches from the perspective of regulatory officials, as well as the perceptions of this approach from the perspective of developers. Regulated entities "value clarity in expectations, consistency in procedures, and the benefit of the doubt when deficiencies are found. But, inspectors must be able to strike a proper balance to encourage cooperation without allowing them to be manipulated into ignoring substantial violations" (May and Wood, 2003: 135). This type of research is best conducted with surveys in selected jurisdictions of developers and regulatory officials. The challenge is conveying what a flexible approach really means so that respondents can express their views about it. One strategy might be to find jurisdictions that have recently introduced changes in regulatory approaches to examine the views about the changes. A second strategy would be to develop vignettes about different approaches that can be incorporated into survey research.

Gaps Related to Evolving Regulatory Reforms

Any discussion of regulatory barriers is framed with respect to the regulations and administrative processes in place at the time. In thinking about regulatory process barriers, considering the implications of evolving regulatory reforms that will likely shape future regulatory implementation is important. Two potentially relevant sets of reforms are discussed in the following paragraphs.

Implications of Performance-Based Regulation and Regulatory Regimes[7]

Performance-based regulation embodies the notion that regulations should be based on achievement of specified results rather than on adherence to particular technologies or prescribed means. This approach has been widely accepted as a basis for improving social and environmental regulations and has been central to reforms of building safety regulation of in the United States, as well as a number of other countries. Until the past decade, the regulation of building safety has developed throughout the world as one of the more rule-bound and prescriptive aspects of protective regulation. Employing a prescriptive approach, the typical building code provision addresses requirements for a component (that is, wall, partition, and floor) in specifying required practice (that is, nailing pattern and bolting or bracing), materials, or both. Since the initial model building code in the United States was promulgated in 1927 (the Uniform Building Code [UBC]), revisions and additions have resulted in hundreds of provisions that, as of the 1997 version of the UBC, comprised nearly a thousand pages.

Recognizing the deficiencies of the prescriptive approach and the increasing complexities of code provisions, a trickle of efforts that began in the 1970s and gathered momentum in a variety of forums has led to a rethinking of the philosophy of building and fire codes. Two separate sets of developments are relevant in the United States. One was an effort undertaken by a consortium of the three national code-writing entities that created a new entity called the International Code Council (ICC) to develop a performance-based building code. The resulting performance-based code was published in December 2001 as *ICC Performance Codes for Buildings and Facilities* (International Code Council, Inc., 2001). A second effort in the United States is a competing model code promulgated by the National Fire Protection Association (NFPA) (2002) as the *NFPA 5000, Building Construction and Safety Code*. Both the ICC and the NFPA performance-based code provisions are alternatives to existing prescriptive code provisions that must be adopted by states and/or localities before they can go into effect. The basic approach of the two performance-based codes is similar in specifying broad goals for building and fire safety, functional requirements that relate to specific aspects of the building (for example, structural stability, fire safety, and hazardous materials), performance requirements (standards) that specify minimum requirements, designation of means for verifying building performance, and, in some instances, examples or guidelines for "acceptable solutions."

Proponents of performance-based codes argue that the codes will foster greater flexibility and innovation in reaching regulatory objectives. The codes also seek to simplify the provisions; the ICC performance code is one-fifth the length of the corresponding UBC. The building industry's interest in the performance-based approach has been driven by desire for increased flexibility and the potential for reductions in compliance costs and time involved for complying with regulatory provisions. Proponents argue that these savings are especially evident when using performance-based codes in the rehabilitation of existing buildings.

Given that the performance-based codes have only recently been adopted, their effects on the administrative aspects of building regulation have not been systematically studied. The provisions put more responsibility on the development community (and their consultants) to demonstrate that a given building design complies with expected performance standards. The roles of plan checkers and inspectors change from assessing compliance with specific, prescriptive provisions to certifying that overall compliance with expected performance has been adequately demonstrated. This certification necessitates greater administrative capacity on the part of regulatory agencies and more expertise on the part of plan checkers and inspectors.

The shift to performance-based regulations is not limited to building regulation; they have been employed for regulations concerning environmental harms, food safety, health and safety, nuclear power plant safety, and transportation safety, among other regulatory arenas. The main issue for production of housing is how shifts from largely prescriptive-based regulations to performance-based regulations affect the types of barriers discussed herein. One research approach is to consider the lessons learned from the use of performance-based regulation to date. One such set of lessons is provided by May (2003) in describing the "leaky building crisis" that emerged in New Zealand after a performance-based building code was introduced. That experience does not serve as an indictment of performance-based regulation; however, it does serve as a reminder of the need to consider the implications for regulatory implementation of performance-based approaches.

Implications of Voluntary Regulation

Another set of regulatory reforms of potential relevance to housing considerations is increased use of various forms of "voluntary" regulation as either additions to or substitutes for traditional forms of regulation. Under the voluntary approach, government calls attention to a potential harm and facilitates voluntary actions by relevant firms or industry associations to address the potential harms. Several variants of voluntary approaches are used. One variant, discussed by Potoski and Prakash (2002), consists of encouraging industry associations to develop "voluntary codes" for which adherence by industry members will provide market and public relations benefits. Coglianese and Lazer (2003) discuss the use of "environmental management systems" as part of voluntary codes with which firms make use of management systems for identifying and addressing problems with adherence to environmental regulations. For example, some firms have adopted the environmental management processes specified under the International Organization for Standards' voluntary ISO 14001 standard. Firms that adopt these systems presumably will have better compliance, and even go beyond compliance, with environmental regulations.

The potential for the use of industry-based voluntary codes in housing-related regulatory programs has yet to be explored. As with the study of performance-based regulation, considering the lessons for housing from experiences with voluntary codes in other arenas and settings would be useful. Perhaps the most directly relevant issue for housing production is the ways in which participation in environmental voluntary codes by large housing manufacturers ease compliance burdens imposed by environmental regulations. This type of research can be undertaken by identifying developers and housing manufacturers that have participated in voluntary codes and studying how such participation has affected the timing of regulatory approvals and other regulatory barriers.

Conclusions

Given the limitations of current research on regulatory barriers, we suggest three avenues for future research. First, we must analyze the true costs of the barriers for the availability and affordability of housing, look beyond building regulation as a regulatory arena for study, and pay attention to lesser studied aspects of regulatory processes—citizen opposition and fragmented regulatory structures. Second, we must consider more fully administrative process simplification, the implications of the use of third parties in regulatory practices, the use of procedural reforms in regulatory decisionmaking and goal setting, and methods for carrying out flexible regulatory approaches. Third, we must consider the implications of broader regulatory reforms relating to performance-based regulation and voluntary codes for housing-related goals.

Acknowledgments

Author

Peter J. May is professor of political science at the University of Washington where he is affiliated with the Center for American Politics and Public Policy and also is an adjunct professor at the Evans School of Public Affairs. His research addresses regulatory policy design, enforcement, and compliance with environmental regulations, and policy processes. His research on these topics has appeared in the Journal of the American Planning Association, Journal of Comparative Policy Analysis, Journal of Policy Analysis and Management, Journal of Public Administration Research and Theory, Law and Policy, Law and Society Review, Public Administration Review, *and* State and Local Governmental Review.

Notes

1. As noted by Ben-Joseph (2003), surveys of homebuilders undertaken by the National Association of Home Builders in the 1960s did not show government regulations as noteworthy obstacles to the housing industry, suggesting that the perceptions of regulatory burdens accompanied the growth of social regulation in the United States that took place in the 1970s.

2. Luger and Temkin (2000) also surveyed developers in New Jersey. The focus of their research was the impact of zoning and subdivision regulations, environmental regulations, and impact fees on housing costs. The impact of building codes was not included in their study.

3. The Alliance is a public-private partnership among 42 organizations with an objective of "streamlining the building regulatory process through the use of information technology to enable the nation to build 'faster, better, safer, and at less cost'" (National Conference of States on Building Codes and Standards, 2003: 1). Alliance members include the National Governors Association, U.S. Conference of Mayors, National Association of Counties, National Association of State Chief Information Officers, National Institute of Standards and Technology, American Institute of Architects, Building Owners and Managers Association International, National Association of Homebuilders, and National Institute of Building Sciences. The National Conference of States on Building Codes and Standards serves as the secretariat for the Alliance.

4. A second closely related focus of the regulatory implementation literature is explaining variation in the motivations of regulated entities to comply with regulations. This literature addresses the ways that regulatory practices facilitate or impede the willingness and ability of regulated entities to comply with regulatory provisions (see, for example, Winter and May, 2001; May, 2003).

5. These effects were studied for 155 central cities across the United States. Success in attracting real estate construction was measured with respect to the number and value of building units in the central city relative to the surrounding metropolitan area. The research failed to find detectable effects of different regulatory practices on central-city development of multifamily housing or of industrial, office, or retail/warehouse buildings. The effects on rehabilitation of commercial office buildings paralleled those for single-family detached residences.

6. The research results reported in this paragraph are findings reported in personal communication with the author on January 20, 2004. The research results are for residential rehabilitation.

7. This discussion of performance-based regulation draws from May (2003). HUD was one of the early proponents of performance-based codes as explored in the late 1960s under an innovative housing demonstration program, "Operation Breakthrough."

References

Advisory Commission on Intergovernmental Relations. 1966. *Building Codes: A Program for Intergovernmental Reform*. Report A-26. Washington, DC: U.S. Government Printing Office.

Advisory Commission on Regulatory Barriers to Affordable Housing. 1991. *"Not In My Back Yard": Removing Barriers to Affordable Housing*. Final report. Washington, DC: U.S. Department of Housing and Urban Development.

Ahlbrandt, Roger S., Jr. 1976. *Flexible Code Enforcement: A Key Ingredient in Neighborhood Preservation Planning*. Washington, DC: National Association of Housing and Redevelopment Officials.

Ayres, Ian, and John Braithwaite. 1992. *Responsive Regulation: Transcending the Deregulation Debate.* New York: Oxford University Press.

Bardach, Eugene, and Robert Kagan. 1982. *Going by the Book: The Problem of Regulatory Unreasonableness*. Philadelphia: Temple University Press.

Beierle, Thomas C. 2000. The Quality of Stakeholder-Based Decisions: Lessons from the Case Study Record. Discussion Paper 00-56. Washington, DC: Resources for the Future.

Beierle, Thomas C., and Jerry Cayford. 2001. Evaluating Dispute Resolution as an Approach to Public Participation. Discussion Paper 01-40. Washington, DC: Resources for the Future.

Beierle, Thomas C., and David M. Konisky. 2000. "Values, Conflict, and Trust in Participatory Environmental Planning," *Journal of Policy Analysis and Management* 19: 587–602.

Ben-Joseph, Eran. 2003. Subdivision Regulations: Practices & Attitudes. Working Paper WP03EB1. Cambridge, MA: Lincoln Institute of Land Policy. http://www.lincolninst.edu/pubs/pub-detail.asp?id=846 (accessed November 25, 2003).

Burby, Raymond J. 2003. "Making Plans that Matter: Citizen Involvement and Government Action," *Journal of the American Planning Association* 69: 33–49.

———. 1999. "Making Building Codes an Effective Tool for Earthquake Hazard Mitigation," *Environmental Hazards: Human and Policy Dimensions* 1: 27–37.

Burby, Raymond J., et al. 2000. "Code Enforcement Burdens and Central City Decline," *Journal of the American Planning Association* 66: 143–161.

Burby, Raymond J., and Peter J. May. 1998. "Intergovernmental Environmental Planning: Addressing the Commitment Conundrum," *Journal of Environmental Planning and Management* 41: 95–110.

Burby, Raymond J., Peter J. May, and Robert G. Paterson. 1998. "Improving Compliance with Regulations: Choices and Outcomes for Local Government," *Journal of the American Planning Association* 64: 324–334.

Coglianese, Cary, and David Lazer. 2003. "Management-Based Regulation: Prescribing Private Management to Achieve Public Goals," *Law & Society Review* 37: 691–730.

Downs, Anthony. 1991. "The Advisory Commission on Regulatory Barriers to Affordable Housing: Its Behavior and Accomplishments," *Housing Policy Debate* 2: 1095–1137.

Euchner, Charles C. 2003. *Getting Home: Overcoming Barriers to Housing in Greater Boston*. With Elizabeth G. Frieze. Boston: Pioneer Institute for Public Policy Research and the Rappaport Institute for Greater Boston, Kennedy School of Government. http://www.pioneerinstitute.org/pdf/wp21.pdf (accessed December 30, 2003).

Field, Charles G. 1997. "Building Consensus for Affordable Housing," *Housing Policy Debate* 8: 801–832.

Field, Charles G., and Steven R. Rivkin. 1975. *The Building Code Burden*. Lexington, MA: Lexington Books.

Ho, Alfred Tat-Kei. 2002. "Reinventing Local Government and the E-Government Initiative," *Public Administration Review* 57: 434–444.

House Committee on Small Business. 2000. *Regulatory Reform Initiatives and Their Impact on Small Business*: *Hearing before the Committee on Small Business*. 160th Cong., 2nd sess., June 7, 2000. Serial No. 106-60. Washington, DC: U.S. Government Printing Office.

International Code Council, Inc. 2001. *ICC Performance Code for Buildings and Facilities*. Whittier, CA: International Conference of Building Officials.

Jones, Bryan D. 1985. *Governing Buildings and Building Government: A New Perspective on the Old Party*. University: University of Alabama Press.

Kagan, Robert A. 2001. *Adversarial Legalism: The American Way of Law*. Cambridge, MA: Harvard University Press.

———. 1994. "Regulatory Enforcement." In *Handbook of Regulation and Administrative Law*, edited by David H. Roosenbloom and Richard D. Schwartz. New York: Marcel Decker.

———. 1991. "Adversarial Legalism and American Government," *Journal of Policy Analysis and Management* 10: 369–407.

Listokin, David, and Barbara Listokin. 2001. *Barriers to the Rehabilitation of Affordable Housing*. 2 vols. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Luger, Michael I., and Kenneth Temkin. 2000. *Red Tape and Housing Costs: How Regulation Affects New Residential Development*. New Brunswick: Center for Urban Policy Research Press, Rutgers, The State University of New Jersey.

May, Peter J. 2004. "Compliance Motivations: Affirmative and Negative Bases," *Law and Society Review* 38: 41–67.

———. 2003. "Performance-Based Regulation and Regulatory Regimes: The Saga of Leaky Buildings," *Law and Policy* 25: 381–401.

———. 2002. "Social Regulation." In *The Tools of Government: A Guide to the New Governance,* edited by Lester M. Salamon. New York: Oxford University Press.

———. 1997. "State Regulatory Roles: Choices in the Regulation of Building Safety," *State and Local Government Review* 29: 70–80.

May, Peter J., and Thomas A. Birkland. 1994. "Earthquake Risk Reduction: An Examination of Local Regulatory Efforts," *Environmental Management* 18: 923–937.

May, Peter J., and Raymond J. Burby. 1998. "Making Sense Out of Regulatory Enforcement," *Law and Policy* 20: 157–182.

May, Peter J., and T. Jens Feeley. 2000. "Regulatory Backwaters: Earthquake Risk Reduction in the Western United States," *State and Local Governmental Review* 32: 20–33.

May, Peter J., and Robert S. Wood. 2003. "At the Regulatory Frontlines: Inspectors' Enforcement Styles and Regulatory Compliance," *Journal of Public Administration Research and Theory* 13: 117–139.

Millennial Housing Commission. 2002. *Meeting our Nation's Housing Challenges*. Report of the Bipartisan Millennial Housing Commission Appointed by the Congress of the United States. Washington, DC: U.S. Government Printing Office.

Moon, M. Jae. 2002. "The Evolution of E-Government among Municipalities: Rhetoric or Reality?" *Public Administration Review* 62: 424–433.

National Commission on Urban Problems. 1968. *Building the American City*. Washington, DC: U.S. Government Printing Office.

National Conference of States on Building Codes and Standards. 2003. "The National Alliance on Building Regulatory Reform in the Digital Age: The Need for the Alliance and Sample Streamlining Benefits." http://www.ncsbcs.org/newsite/New%20Releases/3rdNatlForum_NR_102803.htm (accessed December 30, 2003).

National Fire Protection Association. 2002. *NFPA 5000: Building Construction and Safety Code*. Quincy, MA: National Fire Protection Association.

National Institute of Building Sciences. 2002. *Electronic Permitting Systems and How to Implement Them*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Potoski, Matthew, and Aseem Prakash. 2002. "Protecting the Environment: Voluntary Regulations in Environmental Governance," *Policy Currents* 11: 9–14.

Pressman, Jeffrey, and Aaron Wildavsky. 1972. *Implementation.* Berkeley: University of California Press.

Ross, H. Laurence. 1995. "Housing Code Enforcement as Law in Action," *Law and Policy* 17: 133–160.

Salama, Jerry J., Michael H. Schill, and Martha E. Stark. 1999. *Reducing the Cost of New Housing Construction in New York City.* A Report to The New York City Partnership and Chamber of Commerce, The New York City Housing Partnership and The New York City Department of Housing Preservation and Development. New York: New York University School of Law, Center for Real Estate and Urban Policy. http://www.law.nyu.edu/ realestatecenter/CREUP_Papers/Cost_Study_1999/NYCHousingCost.pdf.

Schill, Michael H. 2002. "Regulatory Barriers to Housing Development in the United States, in Land Law." In *Comparative Perspective* 101*,* edited by A. Gambaro and M. Jordan. The Hague: Kluwer Law International.

Seidel, Stephen R. 1978. *Housing Costs and Government Regulations: Confronting the Regulatory Maze*. New Brunswick: Center for Urban Policy Research Press, Rutgers, The State University of New Jersey.

Sparrow, Malcolm K. 2000. *The Regulatory Craft: Controlling Risks, Solving Problems, and Managing Compliance*. Washington, DC: Brookings Institution.

University of Illinois, Housing Research and Development Building Research Council. 1998. *National Survey of Rehabilitation Enforcement Practices*. Report prepared for U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Urbana: School of Architecture, University of Illinois at Urbana-Champaign.

Winter, Soeren C., and Peter J. May. 2001. "Motivation for Compliance with Environmental Regulations," *Journal of Policy Analysis and Management* 20: 675–698.

Wood, Robert S. 2003. At the Regulatory Front Lines: Building Inspectors and the New Public Management. Ph.D. diss., Department of Political Science, University of Washington.