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Calibration and specification in policy practice: Micro-dimensions of policy design

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ABSTRACT

Three aspects of policy success – programme implementation, policy solution feasibility and political legitimacy and support – need to be at the front of mind when policies are formulated. Many uncertainties endemic to policy-making surround these issues and present considerable public management challenges. Many of these problems, however, are linked to the poor conceptualization and understanding of policy content on the part of policy-makers, something for which policy scholars must share some blame. This is especially true with respect to the existing literature on the micro-level aspects of policies; the level at which goals and policy instruments are concretely implemented in the form of specific policy targets and tool calibrations. While these latter subjects have been examined in the past by luminaries such as Eleanor Ostrom, Guy Peters, Peter Hall and Lester Salamon, their insights into this level of policy-making have been glossed over in the mainstream policy sciences and the significance of their work for real-world policy analysis insufficiently appreciated. This article sets out a framework of policy calibrations and specifications that reconciles and incorporates these insights in order to enhance the chances of policy success through improved policy design.

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Introduction: the need to study the micro-level of policy-making to improve both theory and practice

Policy design is a complex activity that involves all the policy processes from agenda setting to implementation and evaluation. The solutions to policy problems need to be developed in a systematic way, and the way they are designed influences all the stages and tasks involved in delivering services and outcomes (Strokosch and Osborne 2023). That is, policy design is not only relevant in the formulation stage but also to others, like implementation, because implementers do not simply execute a policy

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decision, but must be able to develop a design that can work on the ground. This often involves them in policy formulation as well as undertaking the implementation and other activities required to give a policy effect.

Policy scholars seeking better policies and policy-making are thus challenged to understand not only traditional questions such as what are the drivers of policy design efforts and content but also to determine whether and how the content of a design is capable of successfully influencing policy outcomes in expected ways. The challenges associated with better understanding three aspects of policy success in particular – programme implementation, policy solution feasibility, and how to maintain political legitimacy and support (McConnell 2010) – need to be at the front of mind when policies are formulated and should be subjects for detailed scholarly investigation of successful and failed past practices. While many of these conflicts and uncertainties related to these aspects of policy designs are endemic to policy-making and present considerable public management and implementation challenges, others are due to the poor understanding of policy content for which policy scholars must share some blame (Nair and Howlett 2020; Howlett and Cashore 2009).

This is especially true of the existing literature on the micro-level aspects of policy design, that is, the level at which general goals and programmes as well as policy instruments and governing arrangements are concretely implemented in the form of specific policy targets and tool calibrations (Howlett, Ramesh and Capano 2024; Capano and Toth 2023). These latter subjects have been examined in passing in the past by luminaries such as Eleanor Ostrom, Guy Peters, Peter Hall and Lester Salamon, but their insights into this important dimension of policy designs have typically been glossed over in the mainstream policy sciences and the significance of their work for real-world policy analysis insufficiently appreciated. These policy elements or components of policies (Cashore and Howlett 2007) have only recently begun to receive the attention they require, both in terms of better defining precisely what they are, also setting out their various design parameters: that is, which aspects of these elements can be configured, why and how (Howlett, Ramesh and Capano 2024).

This special issue proposes to continue and deepen this examination of these aspects of policy-making and policy design; that is, to investigate further the nature of policy specifications and calibrations which are especially important in translating often fairly abstract policy goals and intentions into activity on the ground. This is a key challenge in real-world policy design affecting how precisely to match policy goals with the means to achieve them.

Moving from abstract notions of policy goals and means to programmes and practices that are desirable and potentially attainable on the ground requires better knowledge of these under-examined policy components. The articles in this issue reexamine the existing literature on these subjects and introduce new case and comparative examples in order to better understand and analyze the contents of this level of policy-making and move both policy design theory and practice forward.

Analyzing micro-level policy components: the need for a better framework for analysis

The current orthodoxy in the field describes six component elements of public policies which can be distinguished according to whether they relate to policy goals

or policy means, but also at what level of abstraction they occur (Cashore and Howlett 2007) (see Table 1).

Some elements of this matrix have received a great deal of attention, however, while others have not. In recent decades the literature on policy design has made great strides in assessing some levels and aspects of policy-making, while ignoring others. Work on the macro-level aspects of policy-making, such as governance arrangements and policy paradigms and upon the meso-level world of policy objectives and tools, for example, has received a great deal of study and the understanding of what kinds of goals exist at this level as well as the impact of governance arrangements and policy tools choices on policies and policy-making is now well developed (Capano, Howlett, and Ramesh 2015; Hogan and Howlett 2015; Hood 1986; Ingram and Schneider 1990; Vedung 1998; Howlett 2005; Cejudo and Michel 2021; Petek et al. 2021; Petek et al. 2022). However, while understanding activities and content at both these levels is crucial to improving policy design and practice, studies of the micro-level components of public policies – policy calibrations and specifications – have not followed suit. This is a major gap in knowledge with respect to the study of what designs are comprised and how they can best be articulated and put into practice (Capano and Howlett 2020).

At the macro level, for example, where policy design content is concerned with the general ideas and goals of designing policy in specific policy sectors, many works exist dealing with topics such as policy paradigms (Hogan and Howlett 2015) or governance arrangements (Considine and Lewis 1999; Peters and Pierre 1998; Capano 2020) and their impact of policy arrangements. The importance of this level of policy content is clear. Thus, for example, in education policy, the general goals in the sector include, for example, increasing access equity, better skills differentiation, and improving the connection of the educational system with economic needs. In the environmental sector, general goals often include environmental protection against climate change or placing a major emphasis on the need for sustainable economic development. In energy policy, sectoral goals typically involve national energy independence, conservation, or the maintenance of low energy prices. These goals are expected to be achieved in the context of existing governance relations which might emphasize, for example, market-led initiatives, state-led ones, or ‘third’

Table 1. Taxonomy of policy design content.

		CONTENT		
		<i>Sectoral-level (macro)</i>	<i>Programme-level (meso)</i>	<i>Specific measures-level (micro)</i>
FOCUS	Aims	HIGH-LEVEL POLICY GOALS <i>What general types of ideas govern policy design?</i>	PROGRAMME -LEVEL POLICY OBJECTIVES <i>What does policy design formally aim to address?</i>	POLICY GOAL TARGETS <i>What are the specific on-the-ground requirements of policy design?</i>
	Means	INSTRUMENT LOGIC <i>What general instrumental principles guide policy design?</i>	POLICY INSTRUMENT CHOICES <i>What specific types of instruments are utilized in designing policy?</i>	DESIGN OF INSTRUMENTAL CALIBRATIONS <i>What are the ways to deliver instruments?</i>

Source: Our elaboration from Cashore and Howlett (2007).

sector involvement or some preferred combination of these types and arrangements of actors and interests involved in the sector (Howlett and Ramesh 2016).

At the same time, these sector-level goals and means must be paired with more 'meso' level design choices with specific policy objectives – like improving vocational training or developing a 'circular' economy or promoting renewables in the three cases cited above – and linked to choices concerning the general instruments to be used in these efforts – be they public enterprises or other government organizations, financial incentives and disincentives, regulation or moral suasion (Hood 1986). These meso-level choices begin the process of transforming general macro-goals and governance arrangements into implementable policy choices with respect to the type of instruments to be adopted for each purpose (Howlett 2009).

These meso-level policy elements have also received a great deal of attention. Policy designs, for example, differ between programmatic goals such as increased decentralization of families' choices in education, decreasing the greenhouse gas emissions in environmental policy, and diversifying national resources in energy policy and the kinds of tools and instruments available or possible to be used in each effort. Each objective must be paired with substantial policy instruments such as regulation, subsidies, financial incentives, information, public enterprises, and other more procedurally oriented ones and/or procedural ones relating to public participation or involvement if general goals and governance preferences are to be translated into practice (Hood 1986; Salamon 2002; Howlett 2000). For example, in education, financial instruments such as vouchers can be used to increase families' freedom of school choice along with mandatory parent-teacher bodies; in environmental policy, the regulative instrument of technical standards can be used to limit greenhouse gas emissions along with public advisory panels recommending their content; while in energy policy, the establishment of a national public oil & gas company with shareholders chosen from various business, labor or environmental interests could be created to facilitate and promote an increase in energy autonomy and conservation.

While much attention has been paid to better understanding these kinds of choices and linkages in recent years, in the same way as the meso-level operationalizes the macro, so to these meso components of policy design must also undergo specification in detail if they are to be effectively implemented. Dealing with the micro dimension of goals and tools – that is, policy specifications or 'targets' and 'calibrations' – is essential to implement policies on the ground and the choices made at this level are often the key to policy success or failure. It is necessary to precisely define a target if it is to be reached and the kinds of tool calibrations required to achieve this must be carefully considered and selected.

These micro-level calibrations and specifications represent the operational side of policy design; and are the 'point of the spear' or 'where the rubber hits the road' in policy implementation. They have not to date, however, received the attention they deserve in the policy literature, an important gap that the essays in this issue aim to fill (Capano and Howlett 2020; Howlett 2024). By focusing more closely on the micro-dimension of policy design than has heretofore been common practice, it becomes clearer not only how to better design policies that can really work but also how to better understand the reason behind the political conflicts in policy

making. As will be shown, these conflicts are very often not due to the big ideological divides to which they are often attributed but to different ideas and interests about how to concretely pursue policy goals (Cashore and Howlett 2007). It is the aim of the issue is to offer scholars, students, and practitioners a clearer picture of what really matters in designing policies by shedding light on the less analyzed dimension of policy design.

When considering these micro-components of policies, policymakers focus on reaching expected policy outcomes by changing policy content. While the micro-level of policy design is highly relevant to both policy design and practice, however, it needs to be more carefully defined and assessed than has been done in the past. Unfortunately, these micro dimensions of policy design have not been the object of extensive scholarly attention and significant gaps exist even in defining what this level of policy specifications entails.

As noted above, the very large literature to date on governance has focused virtually exclusively on the macro dimension of policies, which contemplates general trends, changes in the main systemic and sectorial goals and, and the general instrumental principles (hierarchy, market and network) that have been considered to characterize the main governance shifts in the last few decades. While it engages with the meso-level, its consideration of more micro-level policy dimensions is poor.

The same is true in the case of the field of public policy, where a new or renewed emphasis on policy design has resulted in a renewed focus not only on policy instruments, their types and arrangements (Hood 1986; McDonnell and Elmore 1987; Salamon 2002; Linder and Peters 1989, 1998; Ingram and Schneider 1990; Vedung 1998; Howlett 2005) including the characteristics of their interactions in policy mixes (Howlett 2018; Givoni 2014; Howlett and Rayner 2013; Cejudo and Michel 2021). While useful, that literature, too, says little about more micro-level interactions or concerns.

These limits have meant that much-existing literature focuses on policy design and practice at the macro and Meso-level. This bias and the resulting neglect of micro-level policy components have been glossed over in much of the literature simply by arguing that this level of policy is epi-phenomenal and simply follows from higher-level choices and decisions. This is the case for example, in Hall's or Sabatier's well-known paradigmatic and advocacy coalitions frameworks, in which the micro components play an ancillary role in that they can only marginally change pre-established macro and meso-level aspects of policy (with micro-level changes labeled as mere 'first-order' change in Hall and as changes in the 'secondary' aspects of policies in Sabatier's work). These frameworks further assume that relevant changes at the micro level can happen only if changes at other, higher, levels also occur.

However, there now exists empirical evidence that changes at the micro level of policy design can in fact be the drivers of higher-level or 'primary' policy components (Oliver and Pemberton 2004; Cashore and Howlett 2007; Dittmar 2014; Howlett and Rayner 2013; Howlett and del Rio 2015; Beland, Philip, and Waddan 2016; Bali et al. 2022). This counterevidence fits perfectly with the idea that policymakers and scholars alike need to pay more attention to the micro dimensions of actual policy design and not simply write it off as subordinate or subsidiary to higher level change (Capano 2019).

This general theoretical gap in the literature, nevertheless, adds to the difficulty of better understanding what policymakers can or should do at all levels of policy when they decide how to address a policy problem (Capano and Howlett 2021). Questions such as whether or not a radical policy change is necessary, for example, or if a partial/marginal change is sufficient (Sewerin, Cashore, and Howlett 2022) turn in part on understanding what precisely a policy intervention entails, beyond a general statement of intent and preference for specific kinds of policy tools. Inadequate answers to this question make it difficult to both design an effective policy and even to gauge policy performance, measured in terms of a policy's real impact on society. This is a key concern for policy-makers and practitioners, which requires consideration from top to bottom, beginning with a better conceptualization of what are the parameters of choice in terms of policy specifications (Dunlop et al. 2022).

Fortunately, however, this neglect has not been absolute, and several major figures in the field have indeed occasionally touched on micro-level design issues and content. Although they have typically quickly moved on and left a legacy of incomplete typologies and partial observations (Salamon 1989, 2001, 2002; Linder and Peters 1989, 1998; Ostrom 2005; 2010), their pioneering work is nevertheless useful in making a start on the analysis of micro-level policy design and practice.

Policy design research has recently begun to build on these partial but nevertheless still foundational studies in the effort to better grapple with the 'micro' level of policy-making. This recent work has helped clarify somewhat the general content of this micro-level of policy design and practice (Schaffrin et al. 2014; Howlett, Ramesh, and Capano 2024; Petek et al. 2021; 2022; Siddiki and Curley 2022; Capano and Toth 2023). But it has also raised many additional and important questions about how this content is actualized in practice, a subject the articles in this special issue address.

Based on this older and more recent work, it is now possible to construct an analytical framework specifying the content of the policy goals and tools needed to grasp the operative content of micro-level policy design, and to begin to consider more seriously what really can drive better performance and what is really at stake for stakeholders in design deliberations.

The framework set out below can enable analysts, decision-makers, implementers and evaluators to highlight the characteristics of policy on the ground – targets and calibrations – which can help them to ensure that the designs they propose contain all the necessary elements to hold a significant chance of attaining policy success.

Better conceptualising policy targets and calibrations: Elements of an improved analytical framework of the micro-level components of policy designs

With respect to policy calibrations, Salamon (1989, 2001, 2002) noted the significance of this level of policy instrument choices in understanding policy dynamics and their effect on how policies work on the ground. He proposed four main dimensions of policy tools that could be calibrated: the type of activity or goods delivered, the type of juridical form and organization through which the activity is

delivered, and the types of rules for delivery. In his words, the respective characteristics of policy tools that could be calibrated were the *level of coercion, automaticity, directness and visibility*. Thus according to Salamon some tools, for example, are more ‘coercive’ than others and, more significantly, this level of coercion is amenable to manipulation by governments depending on their goals, objectives and targets.

Stephen Linder and B. Guy Peters also contributed to the study of the micro characteristics of instrument calibrations by proposing eight dimensions for assessing the relevance and usefulness of policy instruments to policy implementation. Some of these were very close to the four identified by Salamon but others identified additional dimensions of government choice and control. These included *complexity of operation, level of public visibility, adaptability across uses, level of intrusiveness, relative costliness, reliance on markets, chances of failure and precision of targeting* (Linder and Peters 1989).

And a third literature exists in the some of the works of Elinor Ostrom who outlined “seven design rules” (2005; 2010) needed for the creation of regulatory institutions which also describe key policy target and calibration content. These are *Position, Boundary, Choice, Aggregation, Information, Payoff, and Scope rules* which designers need to specify if a regulatory instrument is to ‘work’. That is, it must be clear to whom it applies (and does not apply), what are the benefits or costs of compliance and noncompliance, what options for actions regulatees have, and what kinds of information they are provided to enhance compliance. Together these were intended to delimit the characteristics of actors and their interactions in an “implementation arena”.

Elements of this past work has informed more recent contributions on the subject. The Ostrom’s framework, for example, has been developed through the Institutional Grammar Approach (Frantz and Siddiki 2022) that has consistently worked on operationalizing the Ostrom’s concepts in order to try to better assess policy content and improve the instruments, targets and coherence of policy designs. Other work such as Schaffrin et al. (2014) have proposed models in which there were six important micro dimensions of climate policies linked to those put forward by Salamon and Linder and Peters, while Capano and Toth (2023) built on the same literature to propose a micro-analytical perspective on policy instruments based on five dimensions of calibrations: who are primary recipients, the level of intrusiveness, resource intensiveness, and the nature of the organizations in charge of implementation.

Drawing upon and synthesizing this existing literature, it is possible to arrive at a parsimonious model which better clarifies the characteristics of the two (goals and means) components of the micro-level of policy design and which informs the empirical and conceptual work found in this special issue.

With regard to goal specifications at the micro-level, following Ostrom, three main targets can be thought to be the most relevant in specifying micro-level policy goals:

1. *Designation of the target population*: “who” specifically is targeted by the intervention;

2. *The expected outcome of the intervention*: “what” precisely is expected to be done by the target population with respect to the problematic condition; and
3. *The time frame for achieving the desired aim*: “when” or the time by which the intervention is expected to be undertaken.

Regarding policy calibrations, Salamon, Linder & Peters, Schaffrin et al., and Capano and Toth all identified possible policy tool calibration dimensions which can be combined into a parsimonious but exhaustive mode. Following these authors, and Ostrom, seven dimensions of policy tool calibration characteristics can be seen to be relevant. They are:

1. *Stringency* (i.e. how coercive the adopted instrumental is for shaping the behavioral autonomy of the target);
2. *Public visibility* (i.e. whether and how much the instrumental calibration is visible to the public);
3. *Automaticity* (i.e. whether and how the instruments can be immediately applied by an existing agency without the use of other ways of delivery);
4. *Resources intensiveness* (i.e. the level of organizational and financial resources attached);
5. *The agencies responsible for implementation* (if there is only one public agency, or if there are more agencies, even private, programmatically charged of implementation);
6. *Monitoring and auditing provisions* (i.e. the provision of planned procedures of monitoring and auditing); and
7. *Accountability rules* (i.e. the rules that are expected to activate mechanisms leading to effective implementations; for example: provision of sanctions and fines can activate compliance, while performance funding can activate utility maximization, etc.)

These seven dimensions of calibrations in designing policy instruments, when taken together, form the *delivery package* of the instrument itself (see also Attwell and Navin 2019). This package is expected to concretely activate a policy in a way that can lead, *ceteris paribus*, to an expected policy outcome.

This discussion of policy target specifications and calibration above may be summarized in the framework depicted in [Table 2](#) below.

This framework allows us to grasp whether and how policy design contains the listed dimensions of goals specifications and instrumental calibrations. It is similar to those components of the strategic plans made by private enterprises and public organizations and the indicators they contain for expected outcomes, targets to be addressed, and time frames of intervention (Howlett, Ramesh, and Capano 2024) and opens the door to a better understanding of what is really at stake in policy design. Furthermore, it also allows policy analysts to focus the research on whether and how which micro-arrangements ‘work’ in which context. Both these directions of research constitute a major step forward for the policy sciences.

Table 2. The dimensions of the ‘delivery package’ of public policy: specifications and calibrations in policy design.

TARGET SPECIFICATIONS <i>(policy goals)</i>	CALIBRATIONS <i>(policy means)</i>
1. Designation of the target population	1. Stringency
2. Expected outcome of the intervention	2. Public Visibility
3. Time frame for achieving the desired aim	3. Automaticity
	4. Resource intensiveness
	5. Agencies Responsible for implementation
	6. Monitoring and Auditing
	7. Accountability Rules

Content of the issue

This special issue is intended to move forward this discussion and employ the framework to begin the systematic examination of micro-level policy design and designing in a comparative cross-national and cross-sectoral fashion. It is based on work undertaken for the 2023 Toronto International Conference of Public Policy. In it, the papers use the model set out above in which specifications represent the micro dimensions of policy goal targeting and calibrations of policy tools. As the ICPP discussions showed, the consideration of policies and policy dynamics and change represents a significant step forward in shedding light on how policy is actually designed and enhances the study of comparative policy designs and their success and failure. It provides for a clearer focus on calibration and the related policy goal specifications and offers a general scheme of analysis that can help inter-sectoral comparison and thus improve policy practice on the ground.

The topics addressed by the papers in the issue using this model include:

- What are the drivers of the choices of both calibrations and specifications?
- How specifications can be designed to ensure that they will be followed by implementers?
- How calibrations and specifications work to activate the expected actors’ behaviors and thus to contribute to achieve the expected outcomes?
- Whether or not changes in specifications and calibrations amount to only small changes or can they be drivers of bigger changes even at the meso and macro levels?

The proposed framework allows us to better understand even the politics of policy design because it allows us to get a more fine-grained perspective on what is at stake in the policy process. In fact, the content of the micro-design, both in terms of goals specification and instrumental calibrations is politically highly relevant because it implies not only a normative/ideational dimension (which could relate to preferences for more or less stringency, for more or less public resource intensiveness, or for more or less public visibility) but also the involvement of concrete interests of politicians, bureaucrats and stakeholders. All in all, the every day political battle is focused exactly on the content of micro-design more than on general principles respect objective and instruments. It is through the details of policy design

that the Eastonian allocation of values can be concretely implemented. From an applied point of view, the proposed focus on the dimensions of the micro level of policy design can be very useful to generate more evidence about what works or does not work on the ground and what are concrete policy solutions that policy-makers have at their disposal.

From an analytical and explanatory point of view, focus on calibrations and specifications can be very helpful in providing a finer-grained comparison with respect to the content of policy change as well as in terms of drivers of policy effectiveness than is possible by just focusing on the macro or meso-level of policy goals and means. And it shows that the framework can also help scholars address key questions such as whether and how calibrations and specifications at the micro level are matched to the meso and macro levels. While it is the case that a perfect match is often not achieved in practice, understanding why or why not this occurs is key to effective policy-making and policy design.

The special issue is composed of this introduction plus seven papers prepared by leading figures in the policy design field. These essays help develop and operationalize the framework and move consideration of this level of policy-making and its impact on policy design and practice forward.

The first three papers directly use the framework developed above for grasping the relevant details of the micro-design.

First, Bali, Capano and Ramesh apply the framework to health policy by comparing some of the relevant policy interventions that have been made in Thailand, Singapore and the United States. Health policy tends to have a general goal that is common to all countries, which is to extend health coverage as widely as possible. However, there can obviously be significant differences in how this systemic goal is designed in terms of target specification and policy calibration. In fact, the Obama reform in the US has been based on a significant redesign of both target specification and instrumental calibration and how its implementation is based on specific shapes of the dimensions of calibrations; while the Thai and Singaporean reform shows how the initial policies are adjusted even in terms of coverage through a continuous recalibration of some adopted instruments.

Next, Michael Howlett and Adam Wellstead discuss Strokosch and Osborne's recent suggestion that there is an ongoing shift in public administration in many countries from the design 'of' service following a top-down and efficiency-oriented perspective to design 'for' service, that is, bottom-up citizen-led activities such as co-design and co-creation as strategies for augmenting public value in public policies. They argue that this distinction, while promising, is not clear from an analytical point of view and therefore propose a conceptual clarification based on the very characteristics of the specification of the calibration of micro-design. Through this conceptualization, the paper proposes a useful scheme for policy makers intending to design for services.

Jaime Sainz-Santamaría adopts a mechanistic perspective to analyze a specific policy intervention in Mexico, the Programme for Ecosystem Services (PES) – an incentive-based instrument focused on the conservation of forest areas that provide carbon sequestration, biodiversity protection and water infiltration. After analyzing

the design of this programme according to our framework of the micro-design dimensions, and identifying the mechanisms that need to be activated to achieve the expected objectives, he analyses how specifications and calibrations can be designed to activate the necessary mechanisms.

Three papers then focus on the problem of the implementation and micro-design.

Arnošt Veselý discusses the problem of consensus in the design and choice of policy calibrations and develops his argument based on existing experimental research on citizens' policy preferences. The argument he develops is that, despite the common knowledge and a huge stream of research on evidence-based policy, the provision of more information about the policy has a significant impact on the way individuals frame policy problems, while it has a smaller impact on individual preferences for policy solutions. His findings show how the calibration of policy instruments can be very problematic and also a source of political conflict or potentially low acceptance. This evidence suggests that policy makers should not take it for granted that the calibration of policy instruments, even the smaller ones, will be easily accepted by citizens or that those choices will simply follow automatically from larger macro or meso preferences and changes.

Ishani Mukherjee and Panchali Guha then focus on the motivations that lead policy-takers to choose a particular instrument calibration. They argue that policy-makers need to consider not only economic, self-maximising motivations, but also other drivers of behavior such as social and normative motivations when designing the calibration of policy instruments. They apply their analytical scheme to the case of the the micro-level policy choices made in the fight against dengue fever in Singapore and show how citizens reacted to the policy according to a mix of motivations.

Karol Olejniczak and Igor Lyubashenko then present an in-depth case study of urban food waste initiatives in Warsaw, shedding light on the complex process of translating policy goals into action. Their emerging empirical evidence show how the dynamics of micro-level design allow policy designers a great deal of autonomy in reframing policy problems and also in redesigning solutions, and how micro-design can be based on different contextual factors.

Finally, Graham Ambrose, Myriam Gregoire-Zawilski; Saba Siddiki, and Nicholas Oesterling demonstrate the analytical relevance of focusing on the micro-dimension of policy design by analyzing the evolution of net metering policy in four US states, using the Ostrom-inspired Institutional Grammar framework (i.e. the operationalization of the types of rules proposed by Elinor Ostrom set out above). They use Ostrom's insights as an analytical tool to assess how this policy has evolved over time by operationalizing four concepts: layering, calibration, patching and packaging. Their empirical evidence shows how the same policy, according to different socio-political contexts, can change over time through different changes in the specifications of the instruments adopted.

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