



PENN PROGRAM ON
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Planning for Excellence: Insights from an International Review of Regulators' Strategic Plans

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Executive Summary

What constitutes regulatory excellence? Answering this question is an indispensable first step toward striving for, measuring, and, ultimately, achieving regulatory excellence. One useful way to answer the question would be to draw on the broader literature on regulatory design, enforcement, and management. But perhaps a more authentic way would be to look at how regulators themselves define excellence. However, , we actually know remarkably little about how the regulatory officials who are immersed in the task of regulation conceive of success, yet their viewpoints certainly merit consideration as well when seeking to define regulatory excellence.

In this paper, we investigate regulators' definitions of regulatory excellence by drawing on a unique source of data that provides an important window on regulators' own aspirations: their strategic plans. Strategic plans have been required or voluntarily undertaken for the past decade or longer by regulators around the globe. In these plans, regulators offer mission statements, strategic goals, and measurable and achievable outcomes, all of which provide indicia of what regulators value and what they are striving to become. Occasionally, they even state explicitly where they have fallen short of "best-in-class" status and how they intend to improve. To date, a voluminous literature exists examining agency practices in strategic planning, but we are aware of no study that tries to glean from the substance of a sizeable number of plans how regulators themselves construe regulatory excellence. The main task of this paper is undertaking just this effort.

In selecting plans, we deliberately aimed for a degree of diversity on a variety of dimensions, including the country of origin, regulatory structure, and the subject matter. We emphasized diversity because a broad sample of plans promised the richest exploration of regulatory excellence and avoided the danger of extracting parochial conceptions of regulatory excellence. By examining a broad range of plans, we could also be more confident that core features of regulatory excellence were not overlooked entirely. To this end, the paper draws on 20 plans from different regulators in nine countries. Most, but not all, of these plans are in the

English language, and most, but not all, are focused on energy regulation, broadly construed.

From this sample of 20 plans, we grouped statements made by the agencies and themes implicit in their plans, eventually uncovering and organizing our findings into seven major categories of attributes of excellence, with a total of 25 distinct attributes within them. We found most generally that *excellent regulators are ones that are more (1) efficient, (2) educative, (3) multiplicative, (4) proportional, (5) vital, (6) just, and (7) honest.*

Statements fitting these categories of attributes and sub-attributes were generally found in at least several, and, in some cases, nearly all plans. For example, most agencies identified honesty as a key component of excellence—and they further defined it as embodying the specific attributes of clarity (transparency and comprehensibility of rules, guidance, citation/penalty documents, etc.), independence (avoiding capture by special interests), and forthrightness (commitment to explaining the evidentiary and political bases for its decisions).

In addition to the seven shared categories of attributes, our reading of the plans also revealed seven other “unusual” attributes that only one or two agencies mentioned, but which we thought might be worth considering or emulating. For instance, we found that a small number of plans emphasized safeguarding information and data, empowering others to make smarter choices, and engaging the next generation in regulatory policy through outreach and education.

Beyond merely cataloguing the attributes identified by agencies, the paper also discusses commonalities (and differences) between plan structures, emphases, and framings. We found that the plans differed widely in features such as the specificity of their mission statements, the extent to which they emphasized actions over outcomes (or vice versa), and the extent to which commitments were organized along organizational fiefdoms or cut across bureaucratic lines. Although the main purpose of the analysis was to glean agencies’ notions of regulatory excellence from the substance of their strategic plans, we found it helpful to consider these characteristics of the plans themselves to help interpret, process, and understand the main findings in the paper.

We urge future scholarship to explore alternative methods of text mining, and to study strategic plans over time within agencies, to track how agencies’ notions of regulatory excellence respond to changes in the regulatory context and the larger circumstances within which agencies operate, as well as how agencies handle quantitative goals that are either met or that prove to be unattainable.

List of Acronyms

AUNOPSEMA	Australia's National Offshore Petroleum Safety and Environmental Management Authority
CalEC	California Energy Commission
CoOGCC	Colorado Oil and Gas Conservation Commission
GAO	United States Government Accountability Office
ICER	Ireland Commission for Energy
JSEG	Japan's Strategic Energy Plan
MPROMAR	Mexico's Programa Sectorial de Medio Ambiente y Recursos Naturales
NERSA	National Energy Regulator of South Africa
NMPE	Norwegian Ministry of Petroleum and Energy
NPD	Norwegian Petroleum Directorate
OECD	Organization for Economic Co-operation and Development
UKHSE	United Kingdom Health and Safety Executive
UKOFGEM	United Kingdom Office of Gas and Electricity Markets
UKOG	United Kingdom Oil and Gas
UKONRa	United Kingdom Office of Nuclear Regulation (strategic plan from 2011)
UKONRb	United Kingdom Office of Nuclear Regulation (superseding plan from 2015)
USAF	United States Air Force
U.S. DOE	United States Department of Energy
U.S. DOI	United States Department of the Interior
U.S. EPA	United States Environmental Protection Agency
UtSEP	Utah's 10-Year Strategic Energy Plan

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Regulators around the world exercise authority in a variety of domains, ranging from oversight of complex financial markets (Claesses & Kodres 2014) to product safety (Coglianese, Finkel, & Zaring 2009) to the environment and climate change (Busato & Maccari 2014). The challenges posed by a rapidly changing world economy put pressure on regulators to do more to protect consumers and the general public, often with fewer resources, with speed befitting the information age, and with an eye on distributional equity and disenfranchised stakeholders as well as the regulated interests. They are thus continuously expected to do their jobs “better” or “smarter” than ever before (Graham 2005; Allio 2011; OECD 2012).

Regulators seem to face no shortage of suggestions for how to effectuate “better” or “smarter” regulation. The “New Public Management” movement (Hood 1995), for example, has offered suggestions for cutting regulatory red tape, doing more with less, and reducing burdens on industry. Other suggestions involve responsive strategies for interactions with regulatory industry in enforcement (Ayres & Braithwaite 1992; Hutter 1997) and the leveraging of non-traditional regulatory tools (Coglianese & Lazer 2003; Coglianese & Nash 2006). Still others involve making the regulatory process more accessible and participatory (Lind & Tyler 1988; Ansell & Gash 2007). In addition, regulators are increasingly asked to apply established performance management techniques to measure their progress in meeting targeted outcomes and achieving public value (Moore 2013; Moynihan 2008; Nielsen 2014; OECD 2014; Radin 2009; Smith 2009). This multi-faceted, global pressure to improve regulatory practice and performance begs a critical question: What does it mean to say that a regulator is excellent?

One possible approach to answering this question would be to consult regulators themselves. What do *they* think about when they consider regulatory excellence? Regulators do sometimes consider their own excellence, or lack thereof, when subject to reactive pressures, as when the public, legislators, or courts call on them to explain specific actions they have taken, specific consequences they may be responsible for, or specific acts of omission (Coglianese 2012). But regulators also are encouraged to reflect proactively on what they will do in the near-term, and why. A main vehicle for doing so is via strategic planning and the preparation of documents memorializing the results of such planning.

In recent decades, strategic planning “has become orthodox practice” for regulators and other public sector organizations around the world (Poister, Pitts, & Edwards 2010, 522). For instance, in the United States, the Government Performance and Results Act of 1993 requires federal regulatory agencies to produce, at the very least, five-year strategic plans with statements as to the mission, general goals and objectives, and means to achieve those goals (Pub. L. 103-62, § 3(a)). Of course, strategic planning follows no one-size-fits-all model (Roberts 2000; Toft 2000), and, indeed, regulatory organizations worldwide are subject to a variety of political environments that may influence how and why they engage in strategic planning (Poister, Pitts, & Edwards 2010, 525-26; Franklin 2001). Nevertheless, the strategic plans that they develop represent opportunities for identifying aspirational regulatory values from regulators’ own expressions of their goals.

Strategic plans seek “to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why it does it” (Bryson 2004, 6). They provide a “starting point and foundation for defining what the agency seeks to accomplish, identifying the strategies it will use to achieve desired results and then determining how well it succeeds in reaching results-oriented goals and achieving objectives” (GAO 1997, 1). Through strategic planning, regulators can rethink the purpose of their rulemaking, enforcement, outreach, monitoring, and other activities, trying to fit them together into a coherent program in service of goals they may have latitude to set and refine. When a regulator produces a strategic plan, that plan provides a window into what the regulator aspires to accomplish – or what its leaders, at least implicitly, understand regulatory excellence to entail. At times, regulators even explicitly establish a goal in their strategic plans of achieving “sustained excellence” or of becoming an “exemplary regulator that inspires respect, trust and confidence” (UKONRB p. 2-3), “a world-class leader,” (NERSA p. 9), “a high-performing organization” (US EPA p. 51), or something similar.

Others have studied strategic planning by public sector organizations to understand how and when regulators engage in strategic planning, how effective they are in doing so, and how the content of plans translates into measurable outcomes (see, e.g., GAO 1997; Poister, Pitts, & Edwards 2010, tbl. 1; Franklin 2001; Ayers 2013; Ugboro, Obeng, & Spann 2011; Hendrick 2003). In this paper, instead of asking what makes for an effective strategic planning process, we ask what strategic plans can tell us about regulators’ perceptions of regulatory excellence. To our knowledge, this paper represents the first attempt to mine strategic plans’ content for the purpose of learning what regulators value, rather than to offer advice about how plans should be written (Andrews, Boyne, & Walker 2006). As part of the Penn Program on Regulation’s multi-faceted exploration of how to define and evaluate the qualities of a “best-in-class” regulator (www.bestinclassregulator.org), we focus on strategic plans as one important source of insights about what criteria could be used to set the “best-in-class” regulators apart from the pack. The main objective of this paper is thus to glean how regulators themselves construe “regulatory excellence” in the mission statements they craft, the strategic goals they set, and the outcomes they

commit to measuring and strive to achieve. In the process, we also gleaned some observations, which we offer at the end of the paper, about how the strategic planning process itself and the common and diverging features in our sample of plans contribute to understanding regulatory excellence, thus complementing the existing literature on strategic planning. Our main purpose, however, has been to study strategic plans for what they can reveal about a core set of criteria of regulatory excellence held by regulators around the world.

I. Data and Methods

The primary aim of this paper is to analyze a broad range of strategic plans in order to elicit the themes and issues that regulatory organizations around the world are concerned with—all in an effort to glean from regulators’ own words what constitutes regulatory excellence. We use these efforts to generate a list of attributes of regulatory excellence that stem directly from the experiences of regulators engaged on the front lines, and we catalog statements from the strategic plans into specific attribute categories.

In order to advance the goal of generating an inventory of attributes of regulatory excellence, we were purposive in our sampling. In total, we reviewed 20 strategic plans from 9 countries (including three plans produced by state-level agencies in the United States). The sampled regulators came primarily from the fields of energy, environment, and natural resources regulation. The vast majority of the plans we consulted were written or available in English, although one of us analyzed a plan from the Mexican government only available in Spanish.

A. Plan Selection and Analysis

In selecting plans for inclusion in the study, we sought as broad a range of plans as possible to try to offer a general account of how different regulators view excellence, and to help ensure that unique perspectives on excellence were not excluded inadvertently (see Table 1). For this reason, we sought plans from a variety of different countries and cultures, and from regulatory organizations that sometimes approached problems with different tools and different authority. By way of reference, many of the plans reviewed came from “traditional” regulatory organizations in the sense that they came from a discrete agency of government. But others, including the United Kingdom’s Oil and Gas Plan, appeared to be a plan for a multi-agency collaboration with industry designed to comprehensively manage a more concrete problem, such as safely promoting the operations of the energy sector. Likewise, it could be said that a given plan was “free-standing” (in the sense that it was independently produced by the regulatory organization), while another plan required a reader to refer to a higher-level plan, as when a regulatory organization within a cabinet department writes a sub-plan that frequently refers to how its goals related to the higher-level goals of the larger department. Since we intended our

Table 1. Agency Plans Reviewed

1.	USEPA 2014-18
2.	US Department of the Interior 2014-18
3.	UK Health and Safety Executive, Business Plan 2012-15
4.	NOPSEMA (Australia) Corporate Plan 1 July 2012 to 30 June 2015
5.	UK Office of Gas and Electricity Markets (Ofgem) Corporate Strategy and Plan 2011-2016
6.	California Energy Commission Strategic Plan (6/2014)
7.	UK Oil and Gas: Business and Government Action (March 2013)
8.	UK Office for Nuclear Regulation—first plan from 2011
9.	UK Office for Nuclear Regulation—superseding plan for 2015-2020
10.	National Energy Regulator of South Africa (NERSA) Annual Report 2012/2013
11.	Commission for Energy Regulation, Ireland, Strategic Plan 2014-18
12.	Colorado Oil and Gas Conservation Commission Mission Statement and Strategic Plan
13.	U.S. Air Force Energy Strategic Plan
14.	Utah's 10-Year Strategic Energy Plan
15.	Norwegian Ministry of Petroleum and Energy—National Renewable Energy Action Plan
16.	Japan—Strategic Energy Plan 2014
17.	Norwegian Petroleum Directorate
18.	U.S. Department of Energy 2014 - 2018
19.	"Plan Nacional de Desarrollo, 2013-18" (National Development Plan), Mexico, "Programa Sectorial de Medio Ambiente y Recursos Naturales--"PROMARNAT" (Environment and Natural Resources Agency)
20.	National Energy Board of Canada—Report on Plans and Priorities, 2013-14

research to benefit regulatory organizations with a wide variety of structures and missions, diversity was our key criterion for selection. We developed a preliminary typology of plans (see Table 2) to assist the reader in understanding these more general differences across the regulators in our sample.

Once we generated our list of strategic plans to review through a series of Internet searches and references from others, we set about reading each of the plans, identifying themes and recurring issues, and developing a list of attributes from these recurring patterns. After we had inductively generated a list of attributes, we returned to the plans and collected passages that fit in each of the general attribute categories. We also made note of important themes and issues that did not fit into any of the attribute categories. Section II of this paper presents the findings from our review, offering examples of each of the attributes drawn from a wide range of plans.

Table 2. Strategic Plan “Flavors”

<ol style="list-style-type: none">1. Is the plan free-standing or subservient to a plan produced by a higher-level agency (or nation as a whole)?2. Is the plan articulating single, isolated objectives or integrated, multiple objectives? (e.g., “our mission is to protect the environment” versus “our mission is to protect the environment while maintaining some level of economic growth”)3. Is the plan balanced between activities and outcomes, or is it focused more on one or the other? (Some plans contained no information about how conditions will change, while others said nothing about how planned activities would change conditions.)4. Are the top-level goals arranged by organizational sub-unit (e.g., air, water, and land offices at an environmental authority), by “cross-cutting issues,” by both types separately, or by a matrix approach combining both?5. Are internal management goals (e.g., hiring, diversity, good citizenship) an integral part of the plan?

B. Relationship of Strategic Plans to Core Regulatory Functions

Analysis of regulatory excellence can be considered in connection with four core regulatory functions: priority-setting, problem-solving, people (internal management), and public (external engagement) (Coglianese 2015). We did not expect that strategic plans would necessarily treat each component of the regulatory core equally. On the contrary, because of the nature of strategic planning, we expected certain core functions of regulatory organizations to be mentioned or discussed more often in strategic plans than other functions. Table 3 breaks down our predictions about the role strategic planning would play with respect to each component or function of the regulatory core.

We expected, for instance, that priority-setting would be heavily discussed in strategic plans in general, and indeed we observed that basically all plans engaged in some articulation of goals, missions, or plans of action. In some contrast to this paradigmatic function of strategic planning, we expected that problem-solving – such as the use of specific regulatory instruments or enforcement strategies – might receive less attention in an average strategic plan. We expected this because regulatory organizations typically engage in problem-solving in much more

Table 3. Relationship Between Strategic Planning and the “Regulatory Core”

<i>Regulatory Core Component</i>	<i>Theoretical Role for Strategic Planning</i>	<i>Potential Applications</i>
Priority Setting	Major	Articulate goals, missions, and plans of action
Public (external engagement)	Varying	Identify outreach plans, inform the lay public of agency business
People (internal management)	Varying	Outline needs and wants, make the case for additional support, and develop plans for human capital development
Problem Solving	Minimal	Set targets, announce focus on particular methods and tools, outline enforcement strategies

concrete situations than a typical strategic plan allows. We expected regulatory organizations would resist “tying themselves to the mast” by announcing a commitment to particular principles or methods of problem-solving, and they likewise might resist limiting their discretion in enforcement strategy.

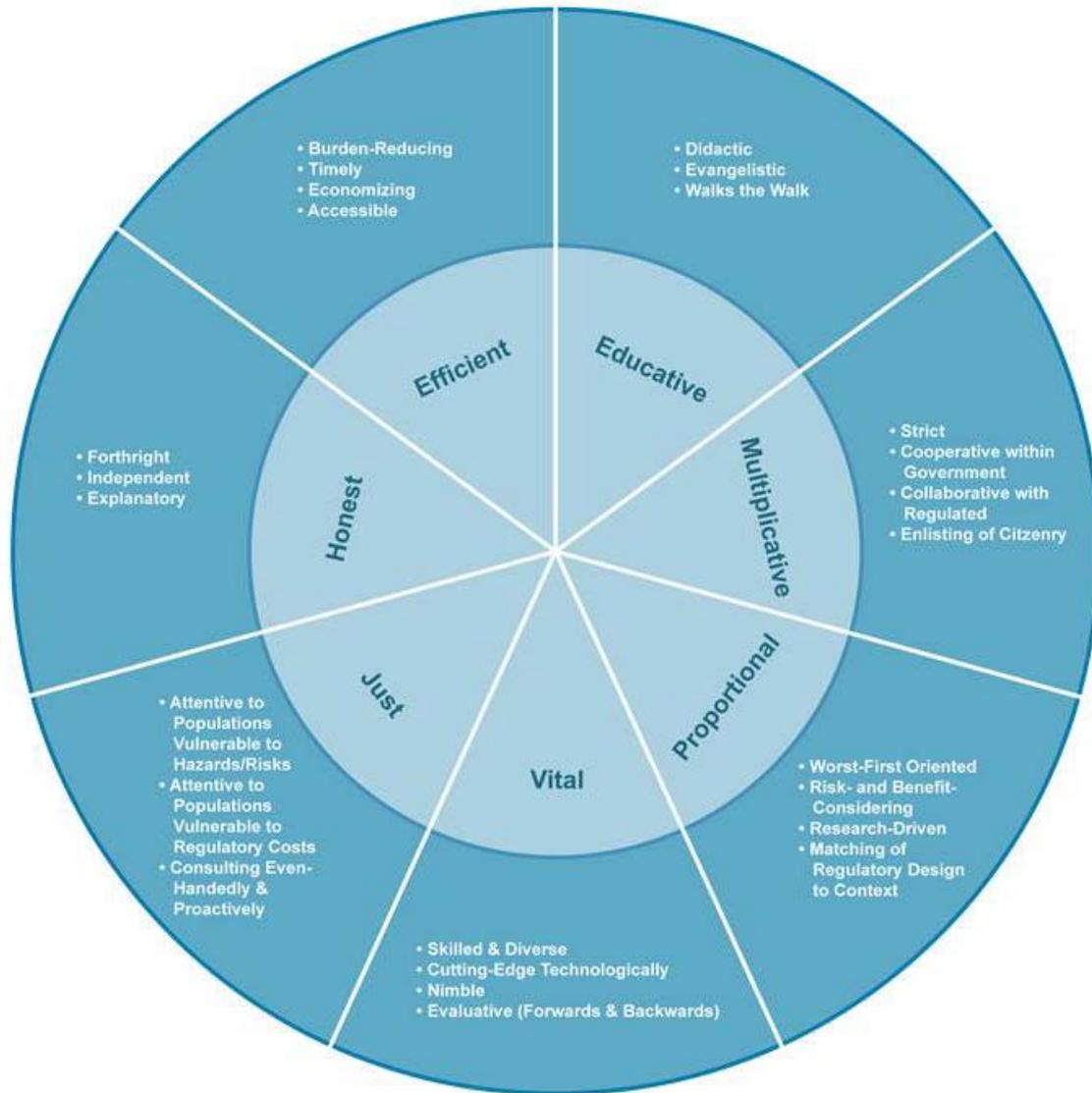
Finally, we expected that strategic plans would be somewhat variable in terms of their treatment of internal personnel management and external public relations. We expected that regulatory organizations would emphasize these components if their external environment demanded it, such as if the regulator had suffered steep budget cuts in recent years or if a public backlash had arisen against a regulatory program. At other times, we expected these components would receive scant mention compared to priority setting.

II. Attributes of Regulatory Excellence

This section discusses the attributes that we found in the strategic plans examined. These are attributes that the reports’ drafters, and presumably the overall leadership of their public organizations, held up as desirable targets of their overall commitment to regulatory improvement. The seven categories of attributes presented here are not arrayed in any intentional order of presentation, but together they contain a total of 25 specific attributes that could be used to measure regulatory quality and improvement. Specifically, as shown in Figure 1, we found attributes expressed in regulators’ strategic plans falling into seven categories:

(1) Efficient; (2) Educative; (3) Multiplicative; (4) Proportional; (5) Vital; (6) Just; and (7) Honest.

Figure 1: Attributes Reflected in Strategic Plans



In labeling these categories, and the specific attributes within each category, we have deliberately used adjectives, rather than nouns, to make clear that regulatory excellence exists along a spectrum. Characterizing attributes as nouns might imply a binary condition (that is, the regulator either does or does not exhibit the attribute), rather than connoting a gradation. For example, the question is not whether a regulator either does or does not achieve “proportionality,” but rather how “proportional” the regulator is, judged by the extent to which the regulator designs its actions to match the needs of the decision. Coglianese (2015, 14-16)

divides attributes of regulatory excellence into three kinds: characteristics, actions, and outcomes. In our view, the first of these kinds of excellence asks regulatory officials to answer the question “What virtues do we hope to embody?”; the second asks “What do we commit to do?”; and the third asks “What changes do we hope to see in the world as a result of our efforts?” Although some of the attributes might well appear to answer one of these questions better than the others, we believe that each of the attributes that follow can, if cast appropriately, be construed as relevant to all three kinds of excellence. For example, consider the attribute of “educative.” It can imply an organizational characteristic (“We want to be seen as a source of knowledge and perspective”), a specific commitment of action (“We commit to always publicizing every oil leak or spill we investigate within 24 hours of arriving on-site”), or a hoped-for—or a verified—change in the world (“We have seen an increase in the number of hits per month on our spill-report website, and have begun to see fewer spills because operators know these events will be publicized.”).

We now proceed to explain each of the twenty-five attributes that we organized into seven categories. For each attribute, we provide examples from the strategic plans.

A. Efficient

We discovered that regulators identified efficiency as part of excellence by referring to at least four different attributes. First, some regulators referred to efficiency by reference to its role in reducing burdens on particular stakeholders. Second, some regulators referred to the need for regulators to act, and make decisions, in a timely way. In some respects, the timeliness of actions and decisions of governments is of great significance in supporting the capacity of stakeholders to plan their activities in a predictable and productive way. Third, nearly all regulators recognized the need to economize on the use of their own resources. This is perhaps not surprising in an era of increased complexity in the fields of activity that regulatory structures aim to influence or control. Finally, a few regulators viewed efficiency in terms of making themselves easily accessible to stakeholders and to the general public.

1. Burden-Reducing

Regulators’ strategic plans contained several types of aspirations that can be characterized in terms of reducing burdens. One common way regulators sought to reduce burdens was by lowering the cost of compliance for regulated entities. For example, the Colorado Oil and Gas Conservation Commission (CoOGCC) Mission Statement and Strategic Plan sought “efficient exploration and production of oil and gas resources in a manner consistent with the protection of public health, safety and welfare” (p.1). More specifically, the plan aimed to reduce the burden on those developing oil and gas resources by requiring CoOGCC to “expedite the processing of

A Note on the Many Meanings of “Efficiency”

“Efficiency” can be defined in a variety of ways that might be relevant to a regulator. Sometimes it is meant to refer to what colloquially passes as “administrative efficiency,” such as when a regulator is deemed “efficient” because it processes applications and permits quickly. But the more formal definitions of efficiency involve consideration of costs and benefits, the balance between them, and the distributions thereof. Strictly speaking, economic theory reserves the term “efficient” either to describe a situation in which at least one person is made better off without anyone being made worse off (this is known as “Pareto efficiency”), or a situation where although one or more persons are made worse off, the total amount of benefits that accrue to others exceeds these costs (this is known as “Kaldor-Hicks efficiency”). However, regulators often define efficiency as a local optimum (that is, choosing the option that is better than the other available ones), a definition that might not entail efficiency. For example, many strategic plans refer to efficiency as “meeting the regulatory goal at the lowest possible cost,” which is the economist’s definition of cost-effectiveness. A cost-effective option would indeed be relatively more “efficient” than one that meets the goal more expensively, but it might not be efficient in either Pareto or Kaldor-Hicks terms. Or, it might be efficient, but *less so* than some other option that was not considered. Finally, it is less commonly acknowledged that there is a mirror-image definition of “efficient” that is sometimes described in terms of “feasibility,” namely not exceeding a cost constraint while achieving the maximum possible environmental or other benefit. In this section of the paper, we let the authors of the strategic plans themselves define “efficiency” in any of these ways, though we note the differences when the context dictates.

oil and gas well drilling, recompletion and disposal/enhanced recovery well permit applications” (p.1). The State of Utah’s Ten-Year Strategic Energy Plan aimed to reduce the burden on those developing oil and gas resources by aligning “Utah’s agencies to better meet and facilitate responsible energy development” (p.8) and by creating “an effective strategy for the legitimate use of Utah’s public lands for energy development purposes” (p.6).

A second way of reducing burdens on stakeholders involved improvements in the efficiency and effectiveness of the use of regulatory tools. The UK Office of Gas and Electricity Markets (UKOFGEM), for example, aimed to “maintain [its] simplification agenda and work where possible within the spirit of the ‘one in one out’ principle to ensure that regulatory burdens on companies are no more than they need to be to protect consumers” (p.13). In a similar vein, the U.S. Environmental Protection Agency (EPA) pledged to “streamline the Agency’s internal business practices, core program processes, and decision making” (p.52). The U.S. Department of the Interior (DOI) said it “review[ed] program activities for

opportunities to eliminate lower priority programs, re-engineer under-achieving programs, and investigate new ideas to increase the effectiveness and efficiency of program delivery” (p.52). The California Energy Commission (CalEC) Strategic Plan called on the agency to adopt standards that would be “flexible with straightforward compliance approaches” (p.3).

Regulators identify facilitation of coordination between agencies as a third way of reducing burdens on stakeholders. For example, the Ireland Commission for Energy (ICER) Regulation Strategic Plan stated that “[e]ffective interagency cooperation and working practices are necessary to ensure the regulatory function of each agency is discharged effectively and that the overall regulatory burden is minimized” (p.13). In a similar way, the corporate plan of the Australian National Offshore Petroleum Safety and Environmental Management Authority (AUNOPSEMA) specified that the agency is to “work with government stakeholders to streamline regulatory processes” (p.1)

2. Timely

A closely related attribute concerned with efficiency is timeliness in fulfilling regulatory responsibilities. Some strategic plans focused, for example, on maintaining the capacity to respond to crises. The U.S. DOE, for example, aimed to “strengthen the effectiveness of Department of Energy emergency response capabilities” (p.9). AUNOPSEMA committed itself to “maintain capability for appropriate regulatory crisis response” (p.1).

A second category of goals related to timeliness of decision-making. For example, CoOGCC committed itself to “resolve notices of alleged violations within sixty (60) days of abatement date” (p.1). Other plans, such as AUNOPSEMA’s, called for “assessment decisions” and compliance activities to be carried out within “specified time frames” (p.1). The CalEC plan more generally stated that “[w]e are committed to providing excellent products and services that are timely, accurate, reliable, responsive, and useful” (p.3). A common commitment among the agencies reviewed was the one to resolve complaints in a timely way.

3. Economizing

Regulators also committed themselves to guiding and influencing complex markets and systems of production in ways that economized on an entire sector, such as energy. For example, the National Energy Regulation of South Africa (NERSA) assumed a broad role for regulating energy “in accordance with government laws and policies, standards and international best practices in support of sustainable development” (p.9). This included a commitment to promoting a “competitive and efficient functioning of the energy industry” (p.10). The UK’s Oil and Gas (UKOG) Business and Government Action Plan aimed to “maximise the economic production of the UK’s offshore oil and gas resources” (p.4). Similarly, the State of California created CalEC to “establish and consolidate the state’s

responsibility for energy resources, for encouraging, developing, and coordinating research and development into energy supply and demand problems, and for regulating electrical generating and related transmission facilities” (p.2).

In the context of seeking to achieve these broad goals in the complex fields of human activity, it is not surprising that these regulators have assumed an obligation to carry out their activities efficiently and to economize on the use of assets to achieve these goals. For example, NERSA committed itself to “make the best use of resources to further the regulatory objectives by exercising objectivity and commitment to evidence-based strategies for improvement” (p.10). UKOFGEM aimed to “ensure that all the programmes with which [it is] involved are delivered through efficient administration and tight control of costs” (p.15). The U.S. EPA was “committed to effective financial operations and accountability including high quality and timely reporting, robust internal controls, clean audits, and effective follow-up on audit and internal control findings” (p.12). In addition to many references to the need to control costs, there were also references to the need to prevent fraud and reduce waste. For example, the U.S. DOI stated that it “utilizes an extensive framework of internal controls to protect against fraud and waste and implements recommendations from the Government Accountability Office and the Office of Inspector General” (p.12).

4. Accessible

Accessibility is the fourth dimension of efficiency. Some agencies sought to reduce burdens on regulatees by making information more accessible and by reducing the transaction costs associated with interactions between themselves and regulatees. For example, the U.S. EPA stated that it was “implementing E-Enterprise, a joint EPA–state initiative, to improve environmental performance and enhance services to the regulated community, environmental agencies and the public” (p.2). Other agencies adopted a broader goal of being accessible. For example, CoOGCC aimed to “provide open access for public inquiries via telephone, email and in person” (p.2).

B. Educative

While regulatory agencies often regard rulemaking and enforcement as their two primary responsibilities, many agencies’ strategic plans included educational programs, either as the third leg of a tripod of responsibility or at least as an important ancillary function. Agency strategic plans generally refer to three distinct kinds of education: the first, which we call “didactic,” being somewhat more commonly-cited than the second, which we call “evangelistic.” In addition, several plans emphasize that agencies can in effect lead by example, and educate the public and the regulated parties through their own commitments to “walk the walk” as a good citizen.

1. Didactic

Many strategic plans construe excellence as including the dissemination of authoritative guidance documents, so that stakeholders will have ready access to clear information about how to comply with rules, secure permits and licenses, obtain entitled benefits, and the like. For example, the UK Health and Safety Executive (UKHSE) committed itself to reissuing printed documents and revising its website so that the regulated public could clearly understand which regulations imposed specific compliance obligations and which defined administrative requirements only, such as paperwork obligations (UKHSE p.6). Several plans, notably that of NERSA, emphasized the benefits of consolidating various guidance documents pertaining to a single industry sector into a “one-stop” rulebook (NERSA p.16). In addition to creating its own guidance, some regulators highlighted the benefits of providing a repository of information produced in the private sector: UKOG helps disseminate the “Supply Chain Code of Practice” to improve the competitiveness of its oil and gas companies (UKOG p.10), and also supports “Project Pathfinder,” which does not involve regulatory issues at all, but rather provides a continuous update of oil and gas operations that suppliers and operators can use to learn of new business opportunities (UKOG p.13).

The opportunity to provide useful information can extend beyond guidance documents and business opportunities: CalEC endeavored to generate data about trends in energy usage and disseminate its interpretations to the general public (CalEC p.3). Another category of education involves opening up the evaluative process to the public: AUNOPSEMA, for instance, pledged in its plan to communicate lessons learned from safety incidents (AUNOPSEMA, p. 1).

2. Evangelistic

Some regulatory agencies see the opportunity to educate more broadly, and set goals for themselves that involve changing attitudes and correcting misinformation. Japan’s Strategic Energy Plan promised to engage in dialogue with nuclear operators to acknowledge that both sectors had fallen prey to “the safety myth” and failed to anticipate the events that resulted in the Fukushima disaster (JSEG p.6). At the same time, both Japan and the UK committed to pushing back against unwarranted pessimism about the industries they regulate and support, and against unfair characterizations of their own regulatory performance: UKHSE’s strategic plan included the creation of a “mythbusters” panel of experts to dispel “urban legends” about over-regulation (UKHSE p.9), and Japan similarly sought to “control damage from groundless rumors” in the wake of Fukushima (JSEG p.6). UKOG took this a step further, and established a goal of correcting the misimpression that its national oil and gas industry was “coming to the end of its life,” a belief it said can discourage talented individuals from coming to work in that industry, compounding a skills shortage (UKOG pp.24-25). Clearly, although some agencies

see a risk in appearing to “cheerlead” for their own achievements and the value of the industries they regulate, others see the forthright chronicling of successes and responding to failures to be part of how an agency earns, but also merits, public trust.

3. Walks the Walk

Several agencies recognized in their strategic plans that, in addition to requiring and encouraging regulated entities to reduce externalities they may cause, they ought to commit to similar improvements within their own agencies, in effect treating themselves as an exemplar. This sentiment may be motivated by a desire to “be the change you want to see in the world,” or perhaps by the realization that an agency that doesn’t align its own conduct to the kind of conduct it seeks to create outside its walls may lose moral authority to do so. For example, a worker safety agency that becomes the subject of press accounts about injuries or illnesses in its own workforce may have particular difficulty imposing requirements on regulated entities. Mohandas Gandhi, the presumed source of the aphorism about “being the change,” explained in more detail that “[i]f we could change ourselves, the tendencies in the world would also change. As a man changes his own nature, so does the attitude of the world change towards him” (Gandhi, M.K. 1913). So “walking the walk” as an agency may engender better conduct among the regulated as well.

Some of the strategic plans make general promises to meet or exceed environmental or other targets for the state or nation as a whole. For example, the UKHSE plan committed to reducing the greenhouse gas emissions of the agency itself by 25% within 5 years (UKHSE p.20). The Norwegian Ministry of Petroleum and Energy (NMPE) made a similar, though non-quantitative commitment, when it said that “the state as a builder and buildings owner should act as a driving force in the efforts on energy diversification and the phase-out of fossil fuels in buildings” (NMPE p.6). Similarly, the U.S. DOE pledged to “minimize occupational illnesses and injuries to DOE federal, laboratory, and service contractor employees” (U.S. DOE p.22).

Other plans are more specific in tasking the rank-and-file of the agency to act in the same responsible manner the agency prescribes for the private sector. The U.S. EPA stated that it will “emphasize sustainable workplace choices that can be routinely practiced by Agency employees, [which] will continue to reduce EPA’s environmental footprint by increasing energy efficiency, reducing greenhouse gas emissions, advancing water conservation, and reducing waste, and will provide lessons learned to share with other federal agencies” (U.S. EPA p. 52). The U.S. DOI explicitly made this a collaborative endeavor, having created a departmental “Sustainability Council” that “links the efforts of employees with those of senior management to modify policies and practices for best results such as cooperative efforts (e.g., inviting employees to submit their ideas for improving sustainable practices) that will foster an inclusive and transparent process to promote sustainability” within DOI (U.S. DOI p. 51).

Although most of the plans confined their pledges in this regard to areas within their own purview (e.g., EPA emphasizing reducing its own carbon footprint), we note that the UKHSE and DOE examples above represent a worker-safety agency taking some responsibility for its environmental citizenship, and an energy regulator committing to improve its own worker-safety record.

C. Multiplicative

This attribute of excellence is a central part of regulation. It is concerned not merely with the powers and obligations of agencies, but also the way agencies and governments use these powers to facilitate the emergence of relationships between regulators and regulatees and among all who are part of a field of regulated activity. These relationships constitute the pathway through which governments and agencies aim to influence the flow of events and achieve public policy goals. We have identified four different pathways that regulators use to create the conditions for the emergence of relationships capable of influencing the flow of events.

1. Strict

In the plans that we reviewed, strict enforcement was the least commonly mentioned pathway for creating relationships that act as points of leverage for regulators. It is important to begin with this pathway, though, because the capacity of agencies to threaten immediate punishment is a very important way of creating relationships that act as points of leverage. The potential for punishment to be a “benign big gun”—that is, where the threat of punishment is always available and rarely used—can establish the basis for the emergence of productive relationships between regulators and the regulated (Ayres & Braithwaite, 1992, Ch 2).

One instance in which an agency specifically identified punishment as a “big stick” can be found in the UKOFGEM Strategic Plan. The UKOFGEM is responsible for facilitating the emergence of markets for energy aiming at a “low carbon energy sector.” In its plan, UKOFGEM said that it would “also rigorously police existing licence obligations to ensure that consumers are treated fairly[,] including the new 30 day notice period to allow consumers to respond to rising prices by switching supplier” (p.11). ICER took a slightly different approach by promising “to use a broad range of hammers” to influence behavior (p. 11). A more specific take on this approach referred to the use of an inspection regime to monitor compliance. The U.S. DOI used this approach when it promised to “improve production accountability, safety, and environmental protection of oil and gas operations through increased inspection of high-risk oil and gas production cases” (p.18).

More commonly in our sample, regulators referred to the role of a broadly defined enforcement program to encourage compliance. An exemplar of this approach was the CoOGCC, which promised to “ensure compliance through an effective enforcement program” (p.1).

2. Cooperative within Government

Regulatory agencies and departments of government sometimes cooperate to solve different kinds of problems. Cooperation will most effectively enable agencies and governments to gain leverage with other stakeholders where the cooperation is directed at solving particular kinds of problems. In our sample, one of these problems is where an agency is charged with a function or obligation that requires collaboration with other agencies and regulatees. A second problem is where an agency is charged with responsibility for aligning the functions or roles of other agencies or departments of government to achieve a public policy goal. This may sometimes extend to cooperation with other national and international agencies where governments have chosen to pursue particular policy goals in collaboration with other nations and international bodies. A third problem is where governments and agencies seek to cooperate with each other to influence regulatees to achieve a particular public policy goal. In our sample, it appears that cooperation emerges as an attribute of excellence when the agency is clear about the problem that needs to be solved and carefully tailors its interactions with other agencies to ensure the process is able solve that problem.

There were a number of agencies that were charged with a particular function that required cooperation. For example, the U.S. DOE committed to “collaborate with industry partners, state, local, and tribal governments, and other federal agencies – offering energy experts as part of the government-wide approach to incident management and response – whether the incident results from natural or unnatural causes, and is complex or crude, or cyber or physical” (p.8). AUNOPSEMA specifically stated that it will cooperate so that it is prepared for “oil spill response management” (p.1).

In some instances, a particular regulator has the role of bringing together other agencies for the purpose of addressing a specific problem. For example, South Africa’s NERSA hosted the first South African Economic Regulators Conference. This conference addressed the problem of how “South Africa’s economic regulators [can] contribute to cost-effective delivery of essential infrastructure in the face of financial, social and environmental imperatives” (p.17). In other instances, governments announced strategic goals to align all aspects of government policy to achieve a particular public policy goal. For example, the Utah Energy Initiative set out to “align Utah’s agencies to better meet and facilitate responsible energy development” (p.7). Agencies often seek to cooperate with other national regulatory bodies, or with international bodies, to further obligations that are part of international agreements. For example, the U.S. EPA participated in the Global Methane Initiative (p.9). The U.S. DOE committed itself to “advance the President’s vision for reducing the levels of nuclear weapons in the world, strengthen nonproliferation efforts, and prevent nuclear terrorism” (p.3).

These forms of cooperation are ambitious and complex. There are instances where agencies and other actors in government collaborate for a specific purpose. For example, the UKOFGEM stated that it will cooperate “actively with the Department of Energy and Climate Change in a regulatory capacity to ensure that the smart meters programme delivers benefits to consumers and contributes fully to achieving Government goals for a sustainable energy sector” (p. 7). Similarly, the CoOGCC committed itself to “[c]ontinue to implement the agreements with the Colorado Water Quality Control Commission to protect Colorado's water resources” (p.1).

Each of these forms of cooperation is primarily concerned with creating better relationships between agencies and government departments. It is important to note, however, that this form of cooperation is also designed to give governments and agencies leverage with regulatees. Sometimes this leverage will help in facilitating economic development, and at other times it will help nudge regulatees to take on extra obligations.

3. Collaborative with the Regulated

Regulators were clear in wanting to establish meaningful relationships with regulatees. In its strongest form, these relationships could be described as partnerships to achieve specific goals. For example, the UKOG Business and Government Action was a “strategy jointly owned by government and industry” (p. 2) that had a number of goals. The first was “to maximise the economic production of the UK’s offshore oil and gas resources” (p. 2). Similarly, NERSA sought a spirit of partnership: “[i]n working with all our stakeholders we deliver on our promises for the purpose of sustainable development” (p.9).

On the whole, though, the relationships between regulators and regulatees were not often described as partnerships per se. But there was a very clear goal of establishing meaningful relationships. One pathway to establishing these meaningful relationships was by offering subsidies. Utah’s 10-Year Strategic Energy Plan called for a review of “the role of tax incentives for businesses to relocate to and expand in Utah and their potential impact on job creation, energy availability and the growth of energy production” (p.7).

The CalEC strategic plan specified the importance of relationships with all its stakeholders. It stated that “all interactions with the public and others with whom we do business are of utmost importance in carrying out the Energy Commission’s responsibilities. Our time, skills, abilities, intelligence, creativity, products, and services are focused on these important relationships, with an emphasis on customer service” (p.2). In its strategic plan, the CoOGCC specified that it “seeks to serve, solicit participation from, and maintain working relationships with all those having an interest in Colorado's oil and gas natural resources” (p.1). The UKOFGEM’s plan aimed “to build public and industry confidence” (p.15). Finally, some agencies specifically recognized the need to establish meaningful relationships even though

the interests of the regulator and regulatees may diverge. For example, AUNOPSEMA aimed to “maintain robust, open and accountable relationships with industry stakeholders in relation to submission and assessment of regulatory plans and safety cases and broader regulatory functions” (p.1).

4. Enlisting of Citizenry

In general, the plans reviewed gave much less attention to enlisting public help to influence relationships with other stakeholders. There were some notable exceptions, though. One important example was the U.S. DOE plan that “sought and incorporated input and comments from multiple stakeholders during the development of the Plan” (p.4). This is an important example because it suggests that the DOE’s own conception of excellence may reflect input from many stakeholders, including the citizenry. A second example is an approach adopted by the U.S. EPA, which stated that it was “mobilizing citizen science efforts to complement those of the USEPA, which, combined with better access to environmental data, enhanced community engagement, environmental education, new tools, and increased analysis, will better support state and local decision-making” (p.2).

D. Proportional

A number of plans addressed themes related to what we dub “proportionality,” meaning developing a systematic sense of when and how seriously to approach risks, and how to match the complexity and cost of problem-solving tools to the size and nature of the problems encountered. Under this set of attributes, regulators discussed how they would focus on the most pressing problems first, use modern methods of risk assessment where possible, use internal research and monitoring to adapt to changing conditions on the ground, and think about how to match regulatory tools to context.

1. Worst-First Oriented

Most of the plans reviewed set specific goals, which would be expected in strategic plans. The U.S. EPA promised to focus its water program on small drinking water systems, for instance, although it did not explain whether that choice was based on absolute risk, risk/benefit ratio, or some other consideration (such as public concern) (USEPA p.16). The UKHSE sought to focus attention on aging oil platforms and identify dangerous sectors of industry (UKHSE p.4). But some plans went beyond simply listing goals or targets and articulated a risk-based system of priority setting. The pinch of constrained resources led the U.S. DOI to focus on “appropriately devoting limited oversight resources based on robust assessments of risk” (USDOI p.36). Other regulators came to the same conclusion, including the UK Office for Nuclear Regulation (UKONR), but based their action on the fact that they “want[ed] everyone...to feel that [the agency] regulate[s]... appropriately and in proportion to the known hazard it presents” (UKONRa p.5). Whether resources or

public legitimacy were the scarce resources, agencies felt the need to get better at prioritizing.

2. Risk- and Benefit-Considering

Not surprisingly, given the emphasis on quantitative risk assessment and cost-benefit analysis in the literature in recent decades, many agencies alluded to some form of risk assessment process. One agency sought to “foster a strong risk management culture” and integrate risk management into each step of the decision-making process (AUNOPSEMA p.1), while the UK government simply sought to engage in its oil and gas promotion program activities “safely, cost-effectively and with regard to the environment” (UKOG p.28). The UKONR incorporated transparency and risk assessment by emphasizing its role as a “trusted source of objective information and advice about the risks and potential consequences of civil nuclear activities” (UKONRa p.5).

Not all regulators have bought into the primacy of risk assessment. ICER seemingly eschewed risk-based planning in favor of an “as low as reasonably practicable” regime, with an “ultimate goal of zero safety incidents” regardless of the cost (ICER p.10). Even so, ICER aimed to incorporate risk assessment into its auditing and inspecting regimes.

Indeed, while mentions of cost-effectiveness and risk assessment were frequent, specific commitments to quantitatively measure risks or engage in formal cost-benefit analysis were rare. It is perhaps the case that agencies are engaging in these practices, but simply hesitate to make too many promises to achieve this level of rigor in the normal course of business.

3. Research-driven

A number of regulators, particularly those overseeing complex energy markets, managing ever-changing ecosystems, or engaging in extensive inspection and enforcement activities, indicated that a major goal was improving their ability to “leverage data and capability to improve decision making” (USDOI p.19) and “make...policy recommendations based on relevant and objective information, forecasting, and analyses” (CalEC p.3). Indeed, for some of the regulators in the sample, like the Norwegian Petroleum Directorate (NPD), data collection was a “national responsibility” that would pay secondary dividends through increased value of natural resources (NPD p.3), presumably because the data could improve decisionmaking and “accelerate the pace of technological innovation” (USDOE p.12).

Several agencies had plans to either develop more modern technologies and research programs to improve the quality of data on which they relied, or to spin off information leveraging from another initiative. In the former category, the U.S. DOI planned major initiatives to “conduct[] science to inform...decisions; develop[] tools to analyze, visualize, translate, and extrapolate science; and...lead[] efforts to apply it

at multiple scales and across multiple landscapes and jurisdictions to inform land and resource planning, policy, mitigation, and management” (USDOl p.44). In the latter category, the UKOFGEM planned to use a general roll-out of “smart meters” to “introduce new consumer protection measures in response to early movers and...continue to explore the safeguards that may be necessary given the innovative market developments, tariffs and services that are likely to be stimulated” by the roll-out (UKOFGEM p.12). One plan mentioned efforts to build relationships with “research partners” in academia and industry in order to develop technologies that would modernize the regulated industry (UtSEP p.6).

4. Matching of Regulatory Design to Context

Proportionality also could be conceived in terms of efforts to match regulatory design—e.g., the choice among market-based approaches, performance standards, specific design requirements, voluntary standards, etc.—to the specific context under regulatory oversight. The UKONR’s Superseding Plan for 2015-2020, for instance, noted its intent to use a “wide range of regulatory tools...to influence positively those we regulate, and to encourage the achievement of sustained excellence in safety and security performance across the nuclear sector” (UKONRb p.3). It aimed to “use a range of internal and external assurance functions to ensure ONR takes the right amount of regulation, proportionate to the hazards and risks presented, of the right quality, at the right cost” (UKONRb p.6). Given the literature on the different regulatory tools available, it was somewhat surprising to find so few agencies explicitly aspiring to experiment and tailor regulatory design to the specific problems they sought to resolve. But as with cost-benefit analysis, this may simply reflect the agencies’ resistance to make any promises, even though in practice they are availing themselves of these tools.

E. Vital

A major theme—indeed, one of the most consistently raised in the sample—was focused on the vitality of the agency, especially with respect to workforce vitality. It is often said that an organization is only as good as the people who comprise it, and, judging by the emphasis the plans put on developing personnel capacities and providing advanced workplace technologies, this holds true for regulators as well. As one plan put it, the regulator’s “most valuable resource is its personnel” (CalEC p.2). We also noted that agencies sometimes—though not as consistently—sought to improve or maintain their vitality as an organization by resisting complacency, challenging themselves to change policies nimbly, and taking structured looks forward and backward at their major programs (that is, to drive the agency as if one is driving a car, shifting focus repeatedly from the road ahead to the rear-view mirror).

1. Skilled and Diverse

Virtually every plan mentioned the importance of various facets of human capital development. According to one regulator, “[t]o be an exemplary organization [the regulator] must have a stable, sustainable, well-resourced, competent, flexible and accountable team” (UKONRb p.6). For another, “[t]he employees of the [agency] are its strongest asset. When employees’ health and safety is protected and they are well trained, empowered, and free from discrimination, they will ensure mission success efficiently and effectively” (USDOE p.22). This could be straightforwardly accomplished by providing a “work environment that offers a high quality work life for all employees by engaging them in shaping [a]gency decisions and improving processes, and providing flexible work practices, fair and inclusive employee-friendly policies, and opportunities for continuous learning” (USEPA p.52). The plans were replete with some variation on this basic theme of developing a hospitable environment so as to “attract and retain high caliber staff” (AUNOPSEMA p.1), even aiming to improve “marketing and branding to attract skilled talent at all levels” (USDOJ p.51). Some plans also emphasized opportunities for growth and rewards, as well as the importance of diversity and tolerance of “individual differences” (USDOJ p.13; USDOE p.23).

Not all of the plans in the sample were upbeat. One confessed that “[h]uman capital management and development” had “been a challenge,” but at the same time remained optimistic that an “Integrated Human Capital Strategy” would lead to better results with retention (NERSA p.17). The emphasis on retention—and the despair where it isn’t happening—is an understandable focus insofar as continuity in staff, and the institutional knowledge that comes with it, can make major differences in the work of the regulator.

2. Cutting-Edge Technologically

The work environment itself is closely related to maintaining a skilled and diverse workforce, and many agencies singled out the importance of this factor in their operations. Various plans in the sample emphasized “modernizing practices” to improve the “transparency and timeliness” of their programs (USDOJ p.36), thereby making for “flexible work environment[s] enabled by advanced information technologies and tools” (USEPA p.51), and using all of these capacities to improve outcomes in programs (UKOFGEM p.6). The use of technology was cited by some as a way to not only improve internal management, but also to provide “analysis, products and services to the public and other stakeholders” (CalEC p.3). Moreover, at least one agency cited the benefits of consistency that could come from better “internal capabilities and processes” (AUNOPSEMA p.1). Despite this emphasis on technology, none of the plans indicated any specific intent to offer employees the benefits of many basic 21st century solutions to workforce inefficiencies, such as smartphones or teleconferencing.

3. *Nimble*

A number of plans articulated a need to retain some degree of flexibility in established programs, recognizing that “management is a dynamic process” (USAF p.18). For instance, the UKOFGEM claimed that it would “[a]ssess the need for additional consumer protection in the light of market developments such as the Green Deal, energy services and tariffs, an increase in demand-side response and the development of heat markets” (UKOFGEM p.13). Likewise, the Japanese Strategic Energy Plan sought to ensure nimbleness by “[e]stablishing a multilayered energy supply system which is sufficiently resilient to function properly not only in normal times but also in times of crisis so as to ensure stable supply of energy is one of the top priorities for truly ensuring a stable supply of energy” (JSEP p.20). Although these kinds of promises to re-evaluate were common, at least one agency aspired to build this “nimbleness” into the very structure of its operations: the UKONR’s earlier plan aimed at “changing [its] organizational structure from one where we work in separate divisions, to a ‘delivery-focused model,’ in which [its] work is grouped into programmes that reflect nuclear industry sectors,” which it anticipated would “provide greater flexibility, enabling resources to be moved quickly in response to changes in demand and priority” (UKONRa p.7).

4. *Evaluative (Forwards and Backwards)*

Related to changing policy nimbly, several agencies paid tribute to comprehensive program evaluation as an essential tool. The U.S. EPA, for instance, claimed that “[a]mong the most important analytical tools is program evaluation, producing rigorous evidence about program effectiveness as well as identifying lessons that may be helpful in shaping agency strategic planning in the future” (U.S. EPA p.42). One agency discussed developing their modeling capacities and undertaking periodic “Significant Code Reviews” in which existing regulatory programs would be systematically examined (UKOFGEM p.10). Others acknowledged that they would revisit existing approaches and adopt a “new direction” after tragedies such as the Fukushima Daiichi nuclear disaster (JSEP p.5), and would seek to adopt a more long-term approach in the future, investing in infrastructure and the like before disaster strikes (JSEP p.31).

While relatively few agencies singled out the importance of program evaluation, virtually all of their strategic plans indicated that they engaged in some kind of program benchmarking.

F. Just

Some agency plans recognized that efficient policies (e.g., ones that maximize positive net benefits) need to be tempered by concerns about equity—that is, the just distribution of benefits and costs. Most commonly, the focus on distribution manifests as concern with the most vulnerable subpopulations (by reducing the “tail risk,” the agency can provide benefits directly to those facing the greatest burdens,

but will also by definition narrow the distribution of inequality, which may be valuable in itself). Here, we draw a parallel between explicit strategic goals to redress inequities in risk and the mirror-image goal of reducing economic burden on the most vulnerable sectors and firms; some agencies emphasize one type of justice, the other, or both.

1. Attentive to Populations Vulnerable to Hazards/Risks

Several agencies emphasized a traditional notion of environmental justice, promising to pay particular attention to “tribal nations and insular communities” (U.S. DOI pp.31-35) or to women and children (MPROMAR pp.52, 55-56). Although U.S. EPA appears to have concentrated for many years on minority and low-income communities, its most recent strategic plan decoupled concern with the demographic characteristics of vulnerable communities, and pledged instead to help “urban and rural” communities that are “overburdened by pollution”—in other words, paying special attention to the right-hand tail of the cumulative exposure distribution, regardless of whether the affected subpopulations are disadvantaged in other ways (U.S. EPA p.10). Similarly, the UKOFGEM referred to “consumers that remain persistently disengaged” in the energy market as a subpopulation of special interest, presumably without regard for the other demographic attributes of these consumers.

In addition to the agencies that seek to preferentially intervene to reduce “hot spots” of risk, at least one agency mentioned concern over the secondary effects of its regulatory and other interventions on vulnerable populations: the UKOFGEM promised that “consistent with the Government’s goal of minimizing fuel poverty, Ofgem will seek to ensure, where we are in a position to do so, that the financial burden of moving towards a low carbon sector does not fall disproportionately on those least able to pay” (UKOFGEM p.11).

2. Attentive to Populations Vulnerable to Regulatory Costs

A few agencies, notably U.S. DOI and UKOFGEM, specifically mentioned small businesses as particularly vulnerable to regulatory costs, or particularly in need of additional assistance in competing for contracts and grants. No agency in our sample, however, linked together the concerns about environmental justice and vulnerable industry sectors; it is possible that environmental justice policies might also benefit vulnerable firms, but they might instead add to their economic burdens, and the plans did not mention how these competing concerns might be balanced or transformed into win/win opportunities. We also note that while this does not necessarily repudiate its concern about equity, at least one agency specifically pledged to be “neutral to all market players without favouring one or other group (non-discrimination)” (NERSA p.9).

3. *Consulting and Intervening Even-Handedly and Proactively*

We discovered that regulators routinely spoke about their strategies for engaging with the public and various concerned constituencies, and did so in two complementary ways: sometimes by emphasizing an “even-handedness” approach that facilitates balanced transmission of information and representative input to and from the agency, while other times expressing a need to proactively engage disadvantaged or less vocal interests and perspectives in the regulatory process through more targeted practices.

a. *Even-Handedness*

Various agencies in the sample emphasized the importance of maintaining appropriate balance in their transparency and access policies, and, ultimately, in their decision making.

For some agencies, this could be accomplished by simply ensuring that disclosure of information was regularized and serving the needs of leaders of knowledge generation. For instance, CalEC planned to “[c]ollect targeted energy data and provide policy makers, consumers and other stakeholders with useful and objective information and analyses based on that data” (CalEC p.3). The U.S. DOI echoed this goal in slightly more detailed fashion by aspiring to “lead the scientific research on the environment and natural hazards and provide information to partners and stakeholders for use in making decisions that will protect lives” (U.S. DOI p.21). But regulators that emphasized the importance of making data openly accessible did not generally articulate the specific pathways for information access that they thought would facilitate transfer. One exception was UKOFGEM, for whom major improvements in this domain could be made by “improving [their] website and call handling for consumers seeking advice” and “publish[ing] research and other data to facilitate debate” (UKOFGEM p.14).

Other agencies recognized that partnerships with the regulated and various constituencies in the general public were a necessary part of excellent practice (see Section II.C *infra*), and that this task carried its own challenges for even-handed inclusiveness. For instance, NERSA claimed that it would strive to “be neutral to all market players without favouring one or other group” (NERSA p.9). Other agencies were even more explicit about this challenge. The CoOGCC, for instance, claimed that it “seeks to serve, solicit participation from, and maintain working relationships with *all* those having an interest in Colorado’s oil and gas natural resources” (CoOGCC p.1) (emphasis added), and the state of Utah’s 10-Year Strategic Energy Plan similarly aimed to “[e]nhance and further integrate partnerships between industry, universities, state government and local communities—especially those in energy-rich rural communities—to address future energy challenges and opportunities,” and planned to form a state energy advisory committee “comprised of a diverse group of representatives of energy in Utah” (UtSEP p.3).

b. Proactive Outreach to Disadvantaged or Non-Traditional Interests

Many of the agencies in the sample noted that disparities in access and influence were inevitable, even with the most neutral engagement and transparency policies imaginable, and they therefore announced an intention to target specific parties or groups so as to help redress such disparities and help ensure a diversity of perspectives. These targeted groups ranged from indigenous and aboriginal groups to small or mid-size business interests, depending on the mission and responsibilities of the regulator. The plans also ranged from general, aspirational claims about engaging these interests to the more technical and practical considerations of how to accomplish this task. For instance, on the more aspirational and inchoate end of the spectrum, the U.S. EPA's plan sought to "[e]xpand the conversation on environmentalism by engaging and empowering stakeholders, including groups with which EPA has not traditionally worked, using multiple forms of outreach, collaboration, and information" (U.S. EPA p.45), and the UKOFGEM sought to "[c]ontinue to explore and, where possible, improve the experience of vulnerable consumers engaging in the market," and to develop "understanding of small businesses' engagement with the energy market" (UKOFGEM p.13). On the more practical, concrete end of the spectrum, AUNOPSEMA's corporate strategy sought to incorporate more targeted stakeholder feedback on draft guidance notes and conduct regular "[i]ndustry information sessions and presentations" to reach out to less informed and engaged parties (AUNOPSEMA p.1). Likewise, the UKOG's plan reported on plans to create a "Business Bank" to "help tackle some of the deep-rooted structural barriers faced by small and mid-sized businesses and increase diversity in the business finance markets" (UKOG p. 15).

The U.S. DOI's role in interacting with tribal governments meant that DOI was particularly attentive to the need to use "consultation and support for effective management of the tribal trust" (U.S. DOI p.13). The DOI indicated that it seeks to build coalitions and show "respect for the viewpoints of the 566 Indian tribes and the importance of maintaining strong tribal communities" (U.S. DOI p. 13). To this end, the Department viewed consultations as a "key component," and also made use of contractual relationships with tribes to administer regulatory programs in a more autonomous and responsive manner (U.S. DOI pp. 13, 32).

G. Honest

We have identified three different aspects of how agencies pledge in their strategic plans to live up to ideals of honesty and candor.

1. Forthright

Various strategic plans construed honesty as beginning with clear information, provided through unambiguous language that does not hide the sources of the data or conclusions. For example, U.S. EPA promised to "emphasize transparency and clarity in its communications, including environmental education

outreach” (U.S. EPA p.45); similarly, the government of Japan said that in making fundamental choices about the national energy mix, it would “disclose relevant information and ensure thorough transparency” (JSEP p.88).

2. Independent

By independent, we mean a regulator that avoids conflicts of interest and resists regulatory “capture.” The strategic plan of NERSA opined that “the independence of the Energy Regulator from the regulated companies is a prerequisite for any sound regulatory system...[and] is also desirable to ensure long-term stability of regulatory practices. Avoidance of regulatory capture by some customer groups is also necessary for successful regulation” (NERSA p.9). The U.S. DOI did not specifically mention capture, but did pledge “not [to] tolerate lapses that detract and distract from good, honest service to the American people” (U.S. DOI, p.12).

3. Explanatory

At least two agencies, both from the U.K., made specific reference to one form of honesty: letting the public in on the thought process that led to particular decisions.

The UKOFGEM noted that “all parties, including investors, will benefit from increased certainty and clarity about how we will make regulatory decisions” (UKOFGEM p.9), while the UKONR’s plan stated that “we continue to be committed to disclosing as much information as possible about our activities, and how and why we have reached regulatory decisions” (UKONRb, p.3). Regulatory honesty, in other words, does not consist merely in telling “nothing but the truth,” but also in telling “the whole truth,” especially where it pertains to the reasons why an agency might have disappointed a particular set of stakeholders.

III. Additional Attributes That May Reflect “Unusual Excellence”

The seven categories discussed in the preceding part comprise those attributes that appeared at least three or four times in our sample of 20 plans, and often far more frequently than that. For example, the attribute in Category C, “Cooperates with other government agencies to solve joint problems,” was mentioned in 15 of the 20 plans we reviewed. But perhaps equally or even more valuable, for the purposes of a regulatory agency wishing to consider the best features of other agencies, might be those attributes of excellence that are rarely mentioned in plans, perhaps because they are the “leading edge” of desiderata. We have identified five such attributes, each of which occurred only once or twice in the sample of plans and tended to fall outside the seven broad categories we have presented above.

A. Engages the Next Generation in Regulatory Policy

Many agency strategic plans mentioned the educational role of the regulator (see Category B above), but one plan specifically pledged to create “initiatives [that] will promote the engagement of young people as active stewards of the environment” (U.S. DOI p.18). One might interpret this emphasis as part of “succession planning”—helping to ensure that agencies like DOI can count on a supply of future talent—but a focus on K-12 education may rather reflect a goal of influencing public preferences and expectations over time, so that the regulator’s mission can be carried on long after the current leadership has retired.

B. Empowers Consumers/Businesses to Make Smarter Choices

In regulatory agencies around the world, the reliance on command-and-control regulation is gradually being supplemented with programs that encourage or require more information to be put in the hands of consumers, who can then make choices in the market to further social benefits. In addition to various agency strategic plans that construe the provision of such information as an attribute of excellence, one agency (the UKOFGEM) has stated that part of its mission is to support and encourage those consumers who seek out and use new information. UKOFGEM claimed that it is “taking steps to improve regulatory safeguards for consumers who have [electricity] meters with smart technology,” presumably involving assurance of data privacy, and ensuring that consumers who prepay their bills using smart meters (or who sell power back to the grid) are not at risk of overpayments (UKOFGEM p.6).

C. Safeguards Information, Especially CBI and Personal Identifiers

One plan briefly mentioned the importance of “ensur[ing] data [are] managed responsibly and [are] secure” (CalEC p.3). The paucity of information sensitivity in the other plans was somewhat surprising, given that energy regulators often deal with industries with trade secrets and other confidential business information. Perhaps it was the case that it was such an obviously important aspect of regulation that only CalEC decided to mention it, when all in fact take the responsibility seriously.

D. Creates a Culture of Safety

One of the more unusual findings that emerged from the study was the UKOG’s discussion of the steps it was taking to develop and institute a culture of safety. The plan stated that:

Effective asset integrity, life extension management and safety system implementation are seen as a strength in the UK. This strength is not an isolated example of good practice, but symptomatic of a health and safety regime and culture that are recog-

nized as world-leading and which are supported by a legal framework that drives continuous improvement.... Step Change in Safety, the industry's flagship safety initiative, was set up in 1997 with the aim of making the UK the safest place to work in the worldwide oil and gas industry.... The Step Change Leadership team includes representatives from industry, trade unions, workforce and the Regulators. Current workstreams include the development of a practical guide for workforce engagement, the raising of awareness and understanding of how human factors and behaviours from boardroom to worksite can cause accidents; helicopter safety; and asset integrity (UKOG p. 9).

While other plans were undoubtedly concerned with safety, this discussion of safety culture *per se* represented a high awareness of the importance for institutions of fostering norms, attitudes, and practices that reinforce larger goals. We see this discussion as a forward-looking goal that other agencies might emulate.

E. Adheres to Principles of Good Corporate Governance

One regulator in our sample specifically referred to “corporate governance” practices. The chair of NERSA stated that “[he] also believe[d] that we undertook our statutory duties with distinction. Our Corporate Governance has improved, with regular board reports provided on the work of the board committees” (NERSA p.16). As with nearly all regulators, NERSA also indicated a strong commitment to develop risk management plans and strategies (NERSA p.134).

IV. Discussion

Up to this point, we have elaborated a catalog of attributes of regulatory excellence we found reflected in our sample of plans. We have drawn on the agencies' own words to demonstrate the richness of conceptions of regulatory excellence within the seven generalized categories. In this section, we attempt to aggregate the data one step beyond the catalog of attributes discussed in the previous section. We offer observations about commonalities (and differences) between plan structures, emphases, and framings. Understanding more about the characteristics of the plans themselves not only provides a better descriptive understanding of the unit of analysis—i.e., strategic plans—but also can help the reader interpret and process the statements discussed in the previous parts of this paper.

A. Mission Statements

There existed considerable amount of variation in the ways agencies defined their missions. Indeed, the range of approaches used by agencies to define their missions is suggestive of the complex nature of regulation. One way of expressing the mission was with reference to an agency's goals. For example, the U.S. EPA stated that its mission was “to protect human health and the environment” (p. 4). Agencies

that defined their mission in this straightforward way tended to identify in their strategic plans the attributes that they need to fulfill their missions. By contrast, some agencies used their mission statements to give an indication of both the goals that they will pursue *and* the attributes that they need in order to pursue these goals. AUNOPSEMA, for example, referred to a number of attributes when it stated that it will achieve its goals “independently and professionally” (p. 1). A variation to this approach was to describe the standards and laws the agency would take into account to achieve its goals. For example, NERSA stated that its mission was to “regulate the energy industry in accordance with government laws and policies, standards and international best practices in support of sustainable development” (p. 8). Finally, some agencies defined their missions in broad and open-ended ways. For example, the National Energy Board of Canada defined its mission as one of regulating in “the Canadian public interest” (p. 4).

B. Actions versus Outcomes

Although verbiage in all the plans described the virtues and values each agency hoped to embody, the plans varied substantially in terms of how much they emphasized outcomes and how much they emphasized actions. For instance, AUNOPSEMA’s plan was organized around functions, strategies, and performance indicators, with the latter category providing measurable indicators of success that could indicate how well each function was being handled (AUNOPSEMA p.1). In contrast, UKOFGEM’s plan emphasized what it called “deliverables” as performance indicators, but in practice these were usually not measurable variables but simply promises to act on various programs or duties (UKOFGEM p.18). For instance, UKOFGEM announced plans to “publish [a] climate change adaptation report,” “[c]onsult on revised Enforcement Guidelines,” and “[m]ake decisions on next steps in relation to the Retail Market Review,” among other things (UKOFGEM pp.18-19).

In our view, the best plans seemed to be ones that thoughtfully moved back and forth between actions and outcomes, emphasizing changes in the world that the agency will monitor and the specific actions it will take with the *intent* of effecting positive change in those benchmarks, but also explaining how it will “connect the dots” between activities and outcomes so as to allocate resources towards those actions that are in fact succeeding by objective measures. U.S. EPA’s plan may be the exemplar here, as it emphasized “next generation compliance measures” (U.S. EPA p.57), which are essentially activity measures whose strong and direct connection with positive outcomes had been empirically validated. For example, U.S. EPA proposed to enumerate the “number of settlement agreements that require the installation of advanced monitoring technologies.” Whereas a traditional activity measure would emphasize the number of settlement agreements *per se* (an agency function that presumably has some degree of correlation with improvements in air, water, and other environmental quality indicators), this “next generation” hybrid measure focused on those settlements that would have built-in assurances that the improvements will likely be realized.

C. Single versus Multiple Objectives

Plans fell at a variety of points on a continuum between those that aimed to achieve goals specified in terms of single objectives versus those that aimed to achieve, in an integrated fashion, more than one objective—or to pursue a goal subject to a constraint, such as to avoid imposing unreasonable costs. For example, the U.S. DOI plan stood toward the single, isolated objective end of the continuum. It was organized around six discrete objectives, such as “celebrating and enhancing America’s great outdoors” and “powering our future and responsible use of the nation’s resources,” but made virtually no mention about the costs of programs or other considerations that might offset pursuit of these objectives (U.S. DOI p.2). By contrast, an example of an multi-objective plan was UKOFGEM’s, which stated that the regulator was “committed to the principles of better regulation and...[to] continually seeking to improve...efficiency and effectiveness,” including “reduc[ing] regulatory burdens while ensuring proper consumer protection” and administering “environmental programmes in a flexible and responsive manner” (UKOFGEM p.25). Similarly, ICER stated that its aim was “to strike a balance between all the goals to ensure the public interest is protected overall.”

D. Cross-Cutting versus Stove-Piping

Some plans were written in stove-piped fashion according to specific programs, while others were written to highlight that core missions and goals cut across programs and applied to each. For example, U.S. EPA’s plan typified a “stove-piped” plan, as it articulated specific goals for each of its program offices (e.g., air quality, water, toxic chemicals, etc.). Many other plans avoided this structure, opting instead to structure the plan around goals and missions that applied to a variety of programs and tasks. For instance, the U.S. DOI structured its plans across four mission areas—“celebrating and enhancing America’s great outdoors,” “strengthening tribal nations and insular communities,” “powering our future and responsible use of the nation’s resources,” and “engaging the next generation” (U.S. DOI p.23)—within which were specific goals that applied to but also cut across the department’s numerous bureaus. In noting the difference, we do not opine on the better way to write a plan, as this very much depends on an agency’s structure, history, and situation, but we did wonder if cross-cutting plans might be less subject to tunnel vision or myopia because they may force agency leaders to look at excellence through a broader lens.

E. Frequency of Categories and Attributes

The plans we reviewed did display some variation in the consistency of treatment across the attributes. Although we caution readers to not read too much into the frequency of any particular attribute in the plans, since our sample was neither random nor necessarily representative of all regulatory strategic plans, Table 4 provides a numerical breakdown of how often each category and sub-attribute was mentioned across our sample of plans. For instance, we found that the

Table 4. Frequency of Attributes of Excellence

<i>Attribute Category</i>	<i>Number of Attributes</i>	<i>Frequency of Discussion</i>	<i>Percent of Plans Discussing</i>
Efficient	4	36	90% (18 of 20)
Educative	3	15	60% (12 of 20)
Multiplicative	4	37	85% (17 of 20)
Proportional	4	21	75% (15 of 20)
Vital	4	32	80% (16 of 20)
Just	3	21	55% (11 of 20)
Honest	3	14	40% (8 of 20)

Note: “Frequency of discussion” enumerates the number of instances across the 20 plans where any attribute within each category was mentioned. The number of attributes was either 3 or 4 (see the second column), and the numbers in the frequency column are not corrected for this variation. The “percent of plans discussing” column enumerates the number of plans that mentioned any attribute within each category at least once.

plans most frequently discussed issues related to economizing, cooperating with other units of government, and partnering with regulated industry. On the other hand, we found that the plans relatively infrequently discussed ways to enhance or maintain convenient access to stakeholders, methods to match regulatory design to the needs of particular situations, or initiatives to focus on vulnerable subpopulations.

F. “Missing” Attributes

We note that it is possible that a particular attribute, or even an entire category, may have been “missing” from a given regulator’s plan—but this may not have been because the regulator overlooked or disavowed it. It seems plausible to us that a particular attribute may be “missing” because some regulators have thought *so much* about them that it “goes without saying.” Strategic plans tend to be roadmaps for where agencies want to head, rather than recitations of where they have already been. (Of course, we did sometimes find examples of attributes that were briefly mentioned in the context of “maintaining our success in X.”) If an attribute was not mentioned explicitly, it may have simply reflected an editorial decision rather than a tacit expression of satisfaction. On the other hand, it is also possible that omission of an attribute may reflect a decision not to call undue attention to less praiseworthy facets of a regulator’s current performance. The clear implication is that readers should not generally infer much from what is *not* stated within the plans.

G. Stakeholder Participation

A small number of agencies used the strategic planning process to signal the importance of the educative and multiplicative attributes in fulfilling their missions.

These agencies used the process of preparing their strategic plans to educate stakeholders about their mission and to gain leverage with those stakeholders by forming partnerships with them. For example the U.S. DOE stated that during the development of the strategic plan it consulted “multiple stakeholders” (p. 2), including members of Congress, the public, and many groups within the Department. The U.S. DOE explicitly recognized the importance of the educative and multiplicative attributes when it stated that “[t]hese comments addressing alternative concepts, priorities, metrics, risks and uncertainties were considered as strategic goals and objectives were developed” (U.S. DOE p.4).

H. Strategic Environment

Every major goal in U.S. EPA’s plan contained a detailed discussion of “external factors and emerging issues” that might affect the achievement of the goal (see, e.g., the discussion about chemical safety on pp. 34-35 of U.S. EPA). These narratives mentioned technological and market trends, pending legislation, and other factors that might affect the agency’s ability to deliver on its ambitions. While this practice is fully compatible with the common “SWOT” (Strengths/Weaknesses/-Opportunities/Threats) tool used in private-sector strategic planning since at least the 1960s (Quincy et al., 2012), we encourage other researchers to gauge via a more statistical analysis of agency strategic plans (see Section V below) to what extent threat/opportunity analysis is explicit or implicit in the thinking of regulatory agency planners. It is certainly plausible that part of what makes an agency an excellent educator (see Section II.B above) is its ability to separate factors it seeks to control from those outside its control.

V. Conclusion

This paper takes an important first step toward a much broader examination both of what regulators see as embodying excellence and of how strategic planning processes can be used to improve regulatory functioning. The bulk of the analysis here has focused on distilling concepts of regulatory excellence from the content of a diverse sample of strategic plans. Our analysis revealed seven categories of attributes containing a total of 25 attributes within those seven categories, all of which agencies repeatedly invoked when they are called on to articulate their vision for the organization. The analysis also revealed less common, but notably innovative, ideas about what it means to be excellent in regulation. We also observed patterns in how plans were developed and framed, with potential implications for a growing literature providing guidance on how to construct and deploy these plans (see, e.g., Poister, Pitts, & Edwards 2010; Cohen, Kamieniecki, & Cahn 2005). Our analysis of strategic plans provides a unique window into how agencies conceive of excellence and how they use strategic planning to express those conceptions. Of course, this analysis is but the start of what we hope will be a much larger exploration of

attributes of regulatory excellence and of strategic planning processes. In this section, we briefly outline potential avenues for future research along these lines.

First, a next step would be to conduct a still more systematic and quantitative analysis of the attributes in regulators' strategic plans. Content-coding text analysis software could greatly enhance the depth of content analysis we have conducted, and by using a suitable algorithm to search for certain patterns researchers could analyze a greater number of plans. Scholars could also in the future develop a broader and more representative sample in order to permit statistical inferences about plans' coverage of attributes of regulatory excellence (and of the quality of the strategic planning documents themselves). As our aim was explicitly exploratory, we did not intend our analysis to definitively support conclusions, for example, about the relative importance of various attributes. Of course, even a representative sample would not allow any kind of ranking of the importance of all possible attributes, since many attributes are simply so fundamental that they go without saying in strategic plans (and, indeed, they may not be covered here because of that). But a representative sample would perhaps provide a better sense of how universally valued certain less-commonly-cited attributes may be.

Second, any review of strategic plans only whets the appetite for more information about how regulatory organizations use strategic planning processes, and to what effect. In order to know more about these kinds of questions, it would be useful to know more about how regulators alter their strategic plans in response to changing circumstances. In future work, strategic plans could be studied longitudinally, examining what ideas persist and what ideas drop out, and under what circumstances and conditions. Do regulatory organizations simply scratch goals that aren't working out in practice, hoping no one will notice? Do they alter the target during the pendency of a plan, with or without calling attention to the need to lower (or raise) expectations? Or do they reflexively place the same ideas in their strategic plans year in and year out without regard to demonstrated success? These kinds of questions are important to answer in order to understand just how sincerely strategic plans ought to be taken as statements of aspirations toward regulatory excellence. Of course, answering them would require a systematic longitudinal study of repeat plans by the same regulators. Such a study, though, would build on the foundation we have established with this paper and would advance our understanding not only of what defines regulatory excellence but also move closer to understanding the extent to which regulators actually achieve excellence in practice.

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