DISAGGREGATING PREEMPTION IN ENERGY LAW

*Hannah J. Wiseman**

The question of which level of government—local, state, or federal—is best suited to regulate a particular activity or risk is both important and, often, contentious. Judges, legislatures, and scholars frequently debate, for example, who should regulate education policy or the impacts of booming oil and gas development. The values cited for choosing a particular level of governmental control vary dramatically. Supporters of preemption point to the need for uniform regulation and the risk of races to the bottom, while opponents raise the need for government accountability to local voters and the benefits of state and local experimentation. In weighing these competing values, those on all sides of the debate too often treat preemption as an all-or-nothing, binary proposition—nearly total local, state, or federal control, or nearly none. As argued here, this approach is unfortunate because it obscures what should be obvious: in many cases, some aspects of a particular activity are best regulated at the local or state level even if most of them are best regulated by the federal government (and vice versa).

Disaggregating the preemption question increases the chance that a court or legislature will allow different levels of government to control different aspects of a regulated activity. This expands the opportunity to achieve different virtues associated with centralized or decentralized control, such as enhancing the accountability of regulation while also providing some regulatory uniformity. The disaggregation approach also encompasses the benefits noted by many New Federalism scholars, such as the checks and balances provided when different levels of government control different aspects of an activity or negotiate for control, and the comparative advantages offered by these different levels of government. Further, by encouraging judicial and legislative consideration of whether lower levels of government should control aspects of a regulated activity, disaggregated preemption can lead to the devolved power and multilevel governance supported by many subsidiarity scholars.

Despite these benefits, and despite the fact that the express, conflict, and field preemption doctrines all seem to require a more nuanced approach, in practice courts and legislatures rarely parse the different aspects of regulations to the extent that they could or should. This Article proposes a structural and normative framework for a disaggregated preemption decisionmaking procedure, explaining how courts and legislatures should approach preemption decisions and why this method best captures the range of values ascribed to both centralized and decentralized control. The Article then analyzes recent preemption decisions within this framework, focusing primarily on energy law examples in light of their recent abundance and exploring how decisionmakers using this approach could better address a variety of preemption conflicts.

---

* Attorneys' Title Professor, Florida State University College of Law. A.B., Dartmouth College; J.D., Yale Law School. Many thanks to Professor Brian Galle, the faculty of Brooklyn Law School, faculty and students in Professor David Dana and Michael Barsa's Environmental Law Colloquium at the Northwestern Pritzker School of Law, and the faculty and students in Professor David Schorr's Law, Environment, and Energy Workshop at Tel Aviv University Buchmann Faculty of Law for their very helpful comments on this Article.

Introduction

Conflicts between state and federal control in U.S. governance have long dominated legal debates. But with the expansion of the regulatory state at the local, state, and federal levels, the divide between proponents of centralized control and federalism seems to have become intractable. Governments at all levels must address increasingly complex benefits and risks—from the rapid growth of information technology to the unexpected boom in domestic oil and gas development—but deciding which governments should have primary authority over these issues is difficult and contentious.

Theories to sort out this debate abound. Scholars, judges, and policymakers point to the structure of the Constitution and its system of checks and balances among different levels of government to argue for federal or decentralized authority.[1] They also explore a panoply of seemingly irreconcilable values.

1. *See* Akhil Reed Amar, *Five Views of Federalism: "Converse-1983" in Context*, 47 Vand. L. Rev. 1229, 1236–40 (1994) (describing and analyzing the "political market" perspective of federalism espoused by Supreme Court Justices and scholars, in which federalism "structures competition between governments" and develops competing institutions that check each other); Jessica Bulman-Pozen & Heather K. Gerken, *Uncooperative Federalism*, 118 Yale L.J. 1256, 1291 (2009) (exploring how subfederal actors integrated into a federal system through cooperative federalism can also serve as checks on federal actors); Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 Emory L.J. 159,

Proponents of centralized control worry that local or state governments will weaken regulatory protections to attract industry, thus creating a dangerous "race to the bottom."[2] Additionally, they point to the importance of uniform standards for industrial actors that move among states and local governments.[3] They further note the regulatory expertise and resources at the federal level that can foster good governance.[4] Supporters of decentralized control argue that smaller governments are more accountable to the people they govern, and can experiment with policies that address localized concerns or generate innovative solutions to shared problems.[5] This debate has expanded in recent decades from the federal-state to the state-local level, raising questions of "intrastate" preemption.[6] Advocates of centralized authority argue for state preemption of local authority, while champions of local control—including subsidiarity theorists, many of whom would devolve governance to the most decentralized level—apply the same arguments of accountability and experimentation to support strong local authority.

Legislative and judicial decisions in recent years have only compounded these debates, particularly in the area of energy law. As companies develop more fossil fuel and renewable energy resources around the United States, significant governance conflicts have emerged. Many forms of energy development

---

163 (2006) (noting states' ability to develop alternative regulatory approaches and to "check" interest group capture of federal policymakers); Erin Ryan, *Federalism and the Tug of War Within: Seeking Checks and Balances in the Interjurisdictional Gray Area*, 66 MD. L. REV. 503, 604–05 (2007) (exploring how involving different levels of governments can create beneficial checks and balances).

2. *See, e.g.*, Richard B. Stewart, *Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 YALE L.J. 1196, 1211–12 (1977).

3. *See, e.g.*, David Spence, *Federalism, Regulatory Lags, and the Political Economy of Energy Production*, 161 U. PA. L. REV. 431, 462–65 (2013) (exploring four values often attributed to federal preemption, including addressing interstate externalities, preventing races to the bottom, providing uniform regulation for easier industry compliance, and achieving important national interests).

4. *See* Robert L. Glicksman & Richard E. Levy, *A Collective Action Perspective on Ceiling Preemption by Federal Environmental Regulation: The Case of Global Climate Change*, 102 NW. U. L. REV. 579, 595 (2008) ("The superiority of federal resources has often been cited as a reason for federal environmental regulation.").

5. *See, e.g.*, Michael C. Dorf & Charles F. Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267, 315 (1998) (arguing that "effective government is first and foremost local government" and that "effective government services and regulations must be continuously adapted and recombined to respond to diverse and changing local conditions, where local may mean municipal, county, state, or regional as the problem requires"); Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416, 418 (1956) (describing the ability of local governments to offer different packages of services, which residents may select by "voting with their feet").

6. *See* Paul Diller, *Intrastate Preemption*, 87 B.U. L. REV. 1113, 1113–14 (2007) (noting the expansion of "new and innovative policies" at the local level and the accompanying rise in claims that local regulation is preempted by state law).

have important aesthetic, social, and environmental impacts borne largely by the communities that host energy development, including ugly transmission lines, blinking lights and noise from wind turbines, and the threat of air and water pollution from oil and gas drilling activities. In the intrastate preemption realm, the highest courts in two states have determined that local governments should control oil and gas development.[7] However, courts and legislatures addressing local oil and gas regulation and bans in at least seven other states have interpreted state statutes and regulations to preempt most local control over this development.[8] And at least two states have allowed local governments to ban or place moratoria on renewable energy development,[9] while others have largely centralized control and preempted most local decisionmaking in this area.[10] At the federal-state level, federal statutes and regulations preempt most local efforts to reduce the risk of explosions and spills[11] from the growing number of trains transporting crude oil and ethanol around the country.

---

7. *See* Wallach v. Town of Dryden, 16 N.E.3d 1188, 1191–92 (N.Y. 2014); Robinson Twp. v. Commonwealth, 83 A.3d 901, 977–82 (Pa. 2013).

8. *See* OKLA. STAT. tit. 52, § 52-137.1 (2015); Tex. H.B. No. 40, 2015 Tex. Gen. Laws c. 30, https://perma.cc/FZB3-YAWY; Energy Mgmt. Corp. v. City of Shreveport, 397 F.3d 297, 306 (5th Cir. 2005); Swepi v. Mora Cty., 81 F. Supp. 3d 1075 (D.N.M. 2015); Ohio *ex rel.* Morrison v. Beck Energy Corp., 37 N.E.3d 128, 137–38 (Ohio 2015); Ne. Nat. Energy, LLC v. The City of Morgantown, No. 11-C-411, 2011 WL 3584376, at 1 (W. Va. Cir. Ct. Aug. 12, 2011); *see also* City of Fort Collins v. Colo. Oil & Gas Ass'n, 369 P.3d 586 (Colo. 2016) (preempting local bans and long-term moratoria); City of Longmont v. Colo. Oil & Gas Ass'n, 369 P.3d 573 (Colo. 2016) (same).

9. *See* Ecogen, LLC v. Town of Italy, 438 F.Supp.2d 149, 162–63 (W.D.N.Y. 2006) (upholding a Town of Italy, New York moratorium on construction of wind turbines); Zimmerman v. Bd. of Cty. Comm'rs, 218 P.3d 400 (Kan. 2009) (upholding a Wabaunsee County, Kansas ban on commercial wind turbines).

10. *See* WIS. ADMIN. CODE PSC § 128.13 (2016). I have addressed intrastate preemption in the renewable energy and oil and gas contexts in previous work, as have other scholars. None of this scholarship proposes the decentralized approach explored here. *See, e.g.*, John R. Nolon & Victoria Polidoro, *Hydrofracking: Disturbances Both Geological and Political: Who Decides?*, 44 URB. LAW. 507 (2012) (discussing the importance of local governments retaining some authority to address the impacts of oil and gas development); Uma Outka, *Intrastate Preemption in the Shifting Energy Sector*, 86 U. COLO. L. REV. 927, 987 (2015) (exploring numerous intrastate preemption cases and concluding that local involvement in energy decisionmaking is helping shape national energy policy and can be "seen as bridging a structural division between energy and environmental concerns"); David B. Spence, *The Political Economy of Local Vetoes*, 93 TEX. L. REV. 351, 393–97 (2014) (applying a Coasean analysis to local bans on hydraulic fracturing and concluding that from the perspective of encouraging more bargaining between industry actors and local governments for the appropriate level of oil and gas development, giving local governments initial veto authority might be the best approach); Hannah J. Wiseman, *Urban Energy*, 40 FORDHAM URB. L.J. 1793, 1830–32 (2013) (arguing for the need to preserve both state and local authority in these areas and to avoid displacing the common law).

11. *See* Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, 80 Fed. Reg. 26,644, 26,664–65 (May 8, 2015) (to be

Many of these decisions involve courts and legislatures choosing to broadly preempt a complex regulatory area through a simplified binary decision, in which one level of government prevails. They often begin their decisionmaking process by looking at a regulated activity writ large, such as well site construction, drilling, and subsequent hydraulic fracturing for oil and gas development.[12] They then ask whether a federal or state government should preempt lower-level control over this entire area, often citing to various values associated with uniform or decentralized control. This approach leads judges and legislators to weigh the competing values and choose one governing authority for an entire regulatory area, ignoring the possibility that their calculus could point to different results for particular aspects of regulation. This reductionist decisionmaking model could be avoided by taking a different procedural approach to the preemption decision. Through this model, courts and legislatures would recognize the different components of a regulatory scheme—such as land use versus technological requirements—and consider which level of government might best exercise authority over each domain.

Disaggregation of preemption decisions could have several important benefits. Because decisionmakers following a disaggregated approach to preemption would consider the many components—or "strands"—of regulation associated with a given activity, they would be more likely to give different levels of government control over the different strands. This, in turn, would provide the opportunity to simultaneously capture multiple values espoused by competing camps of federalism and subsidiarity scholarship. In other words, disaggregation could result in a decision that incorporated several competing federalism or subsidiarity values, creating uniform regulation for certain aspects of the activity and more accountable locally controlled regulation for others. Even if the decision ultimately gave authority over all regulatory strands of a particular area to one level of government, the legislature or court's consideration of the separate strands would also make its decision more transparent, thus allowing for a more nuanced debate of the preemption decision. Further, considering the possibility of giving different governments authority over particular components of a regulatory area would maintain the ability of one government to "check" and offset or improve upon another government's actions within a given regulatory area.[13] And it would more clearly recognize the regulatory in-

codified at 49 C.F.R. pts. 171, 172, 173, 174, and 179) (describing spills, explosions, and fires that have occurred in the United States and Canada).

12. *See, e.g.*, Tex. H.B. No. 40, 2015 Tex. Gen. Laws c. 30, https://perma.cc/FZB3-YAWY (addressing the "regulation of oil and gas operations").

13. *See supra* note 1; *see also* Ryan, *supra* note 1, at 604–05 (noting that in areas where several levels of government have some jurisdiction, some overlap between government responsibilities could add "force to the system of checks and balances, because it enables citizens to wield governmental power at one level when they are unsatisfied with governmental performance at the other level").

teractions among local, state, and federal governments that frequently occur, even when formal allocations of authority do not authorize all of these governments' involvement in the regulatory area.[14]

In light of these potential benefits, this Article proposes a procedural model for disaggregating preemption. Through this model, the entities deciding whether to preempt state or local control should first parse the regulatory issue into different strands. The regulation of a given activity or impact—such as oil and gas development—involves several types of governance approaches, including location-based limits under land use and siting regulations and similar "police powers" regulations,[15] technological and operational requirements,[16] financial measures (such as taxes, fees, insurance, or bonding requirements),[17] information disclosure requirements[18] to assist compliance and allow public monitoring of industry behavior, and regulatory enforcement.[19]

Courts and legislatures using a disaggregated preemption approach should ask whether each of these strands of regulation should be regulated at the federal, state, or local level (or at the state or local level in an intrastate preemption case). This proposed approach is purely procedural and does not expect preemption decisionmakers to choose one value or another, such as local governments' superior capacity to understand and address distinct local concerns or centralized decisionmakers' ability to prevent races to the bottom. Instead, courts and legislatures operating under this model should consider these gov-

14. *Cf.* Engel, *supra* note 1, at 170 (noting "interaction and dialogue between federal and state regulators"); Hari M. Osofsky & Hannah J. Wiseman, *Dynamic Energy Federalism*, 72 MD. L. REV. 773 (2013) (exploring numerous collaborative efforts among different levels of government, as well as actors at the same level of government, to address energy governance challenges); Ryan, *supra* note 1 (exploring how different levels of government bargain for allocations or reinterpretation of authority).

15. *See, e.g.*, BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, INSTRUCTION MEMORANDUM, WIND ENERGY DEVELOPMENT POLICY 7 (2008), https://perma.cc/2DTE-P6WL (requiring a minimum distance between a wind farm and the lease boundary); Cecil Twp., Pa., Ordinance No. 09-2011 § 3 (2011) (allowing oil and gas as a conditional use only in an Oil and Gas Overlay zoning district).

16. *See, e.g.*, MICH. ADMIN. CODE r. 324.406 (2015) (requiring a specific type of blowout preventer to stop oil and gas wells from exploding when drilled or hydraulically fractured); W. VA. CODE R. § 35-4-11 (2015) (requiring someone who has completed a training course on operating blowout preventers to be on site at all times during drilling).

17. *See, e.g.*, WIS. STAT. § 196.378(4g)(d) (2015) (requiring proof of financial responsibility for wind turbine decommissioning).

18. *See, e.g.*, Keith B. Hall, *Hydraulic Fracturing: Trade Secrets and the Mandatory Disclosure of Fracturing Water Composition*, 49 IDAHO L. REV. 399 (2013) (describing requirements for fracturing chemical disclosure); *Toxics Release Inventory (TRI) Program*, EPA, https://perma.cc/U3YA-H967; 42 U.S.C. § 11023 (2012) (requiring annual disclosure of toxic chemicals released from certain facilities).

19. *See, e.g.*, Ronald J. Krotoszynski, Jr., *Cooperative Federalism, the New Formalism, and the Separation of Powers Revisited:* Free Enterprise Fund *and the Problem of Presidential Oversight of State-Government Officers Enforcing Federal Law*, 61 DUKE L.J. 1599 (2012).

ernments' comparative advantages in regulating each regulatory component (be it location-based, technical or operational, financial, information disclosure-based, or enforcement-based).[20] They should also consider values that would be captured by assigning regulatory authority over that particular component to a local or centralized government.

Courts should apply this approach whether employing an express, conflict, or field preemption analysis because all of these doctrines already demand some degree of disaggregation. Express preemption—which involves a legislature clearly stating that lower-level regulations should be preempted—requires courts to consider the scope of such preemption.[21] Express preemption decisions often find that the legislature has indicated a clear intent only to preempt regulation in a portion of a regulatory area.[22] Conflict preemption, in turn, requires a careful parsing of different types of regulation within one regulatory area to determine whether it would be impossible for a regulated actor to comply with both a lower-level and state or federal regulation, or whether the lower-level regulation would frustrate the purpose of the state or federal law.[23] And field preemption asks whether the legislature intended to fully occupy a regulatory area or left some room for lower-level control,[24] again pointing to the need for disaggregation.

Of course, courts will be less free than legislatures to disaggregate where it is clear that the legislature intended full preemption of a regulatory area, as courts are tasked with ascertaining legislative intent. But in the many cases where legislative intent regarding preemption is not abundantly clear and courts are forced to at least partially wade into policy decisions, there is room for disaggregation. Indeed, each of the doctrines that courts follow in ascertaining legislative intent for preemption already seem to call for the type of disaggregation proposed in this Article. But legislatures and courts do not employ disaggregation to the extent that they could or should.[25]

Just as legislatures and courts have failed to disaggregate preemption decisions or have typically disaggregated in a piecemeal fashion, scholarship has not fully identified or embraced the disaggregation approach. Rather, the extensive federalism and preemption literature tends to concern itself with the competing

20. For discussion of the comparative advantages offered by different levels of government, see, for example, Steven G. Calabresi & Lucy D. Bickford, "Federalism and Subsidiarity: Perspectives from U.S. Constitutional Law," Faculty Working Papers, Paper 215, and Brian Galle & Mark Seidenfeld, *Administrative Law's Federalism: Preemption, Delegation, and Agencies at the Edge of Federal Power*, 57 DUKE L.J. 1933, 1985–89 (2008).

21. Caleb Nelson, *Preemption*, 86 VA. L. REV. 225, 227–28 (2000).

22. *See infra* Part I.

23. *See* Steven A. Gardbaum, *The Nature of Preemption*, 79 CORNELL L. REV. 767, 772 (1994) (describing these two distinct types of conflicts).

24. Nelson, *supra* note 21, at 227.

25. *See infra* Part II.

values achieved through federal or state control,[26] constitutional interpretation that should lead to greater federal or state authority,[27] and jurisdictional approaches that are more nuanced than federal-state authority allocation.[28] But just as existing judicial doctrine seems to demand some degree of disaggregation of preemption decisions, much of the scholarship supports values that would be achieved by disaggregation—particularly the "New Federalism" literature.[29] In one of the most recent iterations of this approach, Professor Sarah Light argues for maintaining multiple levels of governmental control over a

26. *See, e.g.*, Larry Kramer, *Understanding Federalism,* 47 VAND. L. REV. 1485, 1498–99 (1994) (arguing that numerous values attributed to preserving state regulation or favoring national control—values such as states responding to local preferences and enhancing accountability, and the national government protecting from the tyranny of local majorities—hold true); Michael W. McConnell, *Federalism: Evaluating the Founders' Design*, 54 U. CHI. L. REV. 1484, 1493, 1498 (1987) (noting the ability of subfederal actors to innovate).

27. *See, e.g.*, Herbert Wechsler, *The Political Safeguards of Federalism: The Role of the States in the Composition and Selection of the National Government*, 54 COLUM. L. REV. 543 (1954) (analyzing the portions of the Constitution that distribute power among different governments and establish voting and appointment requirements, and concluding that Congress, not the courts—which are primarily concerned with protecting national sovereignty against state intrusion—should have "ultimate authority" for managing federalism).

28. William Buzbee has extensively theorized ceiling preemption—a somewhat rare form of governance in which the federal government sets the maximum level of stringency to which a state may regulate—and the more common floor preemption, in which states may regulate more stringently above a federal floor. William W. Buzbee, *Asymmetrical Regulation: Risk, Preemption, and the Floor/Ceiling Distinction*, 82 N.Y.U. L. REV. 1547, 1551–52 (2007). Other scholars have noted a variety of other ways in which state and federal governments interact, such as trading authority back and forth (with states building from federal law and vice versa); negotiating around official boundaries of authority; collaborating with government actors at the same level and at different levels; relying on state governments to implement or experiment with a nationally designed regulatory effort or allowing two levels of government to implement a policy in parallel; and resisting efforts by another level of government to exercise authority within its jurisdictional area. *See* Bulman-Pozen & Gerken, *supra* note 1, at 1275; Ann E. Carlson, *Iterative Federalism and Climate Change*, 103 NW. U. L. REV. 1097, 1108, 1128–37 (2009); Abbe R. Gluck, *Intrastatutory Federalism and Statutory Interpretation: State Implementation of Federal Law in Health Reform and Beyond*, 121 YALE L.J. 534, 585–88 (2011); Hari Osofsky, *Multidimensional Governance and the BP Deepwater Horizon Oil Spill*, 63 FLA. L. REV. 1077, 1082–89 (2011); Erin Ryan, *Negotiating Federalism*, 52 B.C. L. REV. 1 (2011).

29. "New Federalism" recognizes the complex divisions of authority that extend far beyond pure federal-state control and explores how different levels of government working together (even in conflictual relationships) can achieve some of the traditional federalism values. *See, e.g.*, Bulman-Pozen & Gerken, *supra* note 1 (arguing that it is valuable for states to operate under federal commands, and sometimes to oppose or resist these commands, because this creates an "administrative safeguard of federalism," where state officials tasked with implementing federal regulations question federal agencies' approaches); Gluck, *supra* note 28 (exploring the many different types of federal-state authority allocations under the Affordable Care Act, including a federal "default" health exchange that states can use in lieu of forming their own exchange, and the opportunities that might arise from these types of approaches).

regulatory area until it has been established that one government is better at regulating than another.[30] Disaggregation would support this approach by encouraging courts and legislatures to consider the possibility of different levels of government maintaining control over different portions of a regulatory area, although disaggregation has a different focus.

Further, the subsidiarity literature has partially but not directly addressed the disaggregated approach. Proponents of subsidiarity generally argue for the devolution of power to smaller levels of government in order to enhance the accountability of the government to those governed and to capture the unique knowledge that smaller governments have regarding regulatory issues.[31] Disaggregation increases the chances of some devolution but also recognizes that some powers might, and should, still rest at the centralized level. Indeed, broader approaches to subsidiarity and its benefits—approaches that do not focus on a one-way ratchet toward the local level—should support disaggregation in preemption decisions. For example, Professor Yishai Blank argues that "it is no longer possible—nor is it desirable—to think, decide, and implement rules and policies only at the federal level or at the state level or at the local level; rather, it has become necessary to govern them at many levels of government—subnational, national, and supra-national—simultaneously."[32] In the preemption context, a procedural disaggregation approach does not guarantee that different levels of government will control a given regulatory area, just as it does not guarantee a one-way ratchet toward local control. But the approach recognizes the importance of considering how different levels of government might best control different aspects of the regulatory area.

This Article explores the benefits of a disaggregated approach, proposes a disaggregation model for legislatures and courts to apply, and examines recent preemption decisions to demonstrate how disaggregation could improve these decisions.

Part I introduces the existing preemption doctrine and the need for a disaggregation approach, suggesting how courts and legislatures could reach better decisions if they followed this approach—regardless of their federalism preferences. Specifically, this Part explores how legislatures and courts considering a preemption question in a regulatory area—such as the regulation of oil and gas development or renewable energy development—would open up opportunities for assigning different levels of government control over different regulatory components. This, in turn, will make it more likely that the benefits offered by governance at different levels will be realized. It will also make preemption

30. Sarah Light, *Precautionary Federalism and the Sharing Economy*, 66 EMORY L.J. (forthcoming 2016).

31. *See, e.g.*, Calabresi & Bickford, *supra* note 20, at 5 ("Subsidiarity is the idea that matters should be decided at the lowest or least centralized competent level of government.").

32. Yishai Blank, *Federalism, Subsidiarity, and the Role of Local Governments in an Age of Global Multilevel Governance*, 37 FORDHAM URB. L.J. 509, 510 (2010).

decisions more transparent—showing that the legislature or court considered various benefits and disadvantages associated with different levels of government—and will import New Federalism and subsidiarity principles into preemption decisions.

Part II proposes the disaggregation model that courts and legislatures should follow when making preemption decisions, arguing that these decisionmaking entities should break the regulatory area into components and determine which level of government should have authority over each component. These entities might ultimately decide that one level of government should maintain jurisdiction over all of the components, but disaggregation at least requires consideration of various governments' advantages in the regulatory area and other values that might be captured by giving different levels of government jurisdictional authority within the regulatory area.

Part III then uses this framework to assess existing approaches to preemption, exploring the extent to which they employ disaggregation. In describing these approaches, this Part uses examples from three areas of energy law where preemption issues have proliferated: oil and gas production, renewable energy development, and the transport of crude oil and ethanol by rail. This Part explores how these preemption decisions generally combine the regulatory strands within each of these areas but incorporate limited disaggregation principles.

Part IV considers and rebuts objections to disaggregating preemption—particularly concerns about the resource-intensive nature of a disaggregated approach, the costs that can arise when different governments control aspects of one regulatory area, and regulatory commons and environmental justice issues.

A simple, uniform, and perfectly balanced approach to preemption decisions is likely impossible to achieve in light of the deep ideological and doctrinal divides in this area. But disaggregation will improve the common all-or-nothing approach, which ignores the potential for better results from more nuanced decisionmaking. As jurisdictions across the country wrestle with difficult governance decisions in areas ranging from energy to immigration[33] to education,[34] a new path forward is needed. Applying a vigorous disaggregation doctrine to preemption decisions is an important step down that path.

---

33. *See* Diller, *supra* note 6, at 1120–21 (describing local regulations directed at employers and landlords and associated intrastate preemption cases); Rick Su, *A Localist Reading of Local Immigration Regulations*, 86 N.C. L. Rev. 1619 (2008); Ryan Terrance Chin, 58 UCLA L. Rev. 1859, 1861 (2011) (noting "a significant increase in local legislation concerning immigration" since 2007).

34. *See, e.g.*, Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 Emory L.J. 159, 159 (2006) ("[W]hen Congress enacted the No Child Left Behind Act of 2001, it imposed detailed requirements relating to teacher qualification, student performance, and reporting upon states in primary and secondary education, what might be considered the quintessential object of state and local control.").

I. The Case for Disaggregating Preemption

Current preemption doctrine and scholarship espouses a range of justifications for centralized or decentralized control, weaving a tangled, seemingly irreconcilable web of competing values that could be considered within the preemption decision. Integrating the many values cited for or against preemption is especially difficult—and inefficient—when a judge or legislature addresses an entire regulatory area and makes this area off limits to certain levels of government. In contrast, disaggregation—in which the decisionmaker considers different parts of the regulatory area and considers granting different levels of government control over these regulatory parts—creates an opportunity for achieving better results, regardless of the decisionmaker's underlying federalism preferences. For example, as discussed further below,[35] when making a binary preemption decision in the context of the regulation of oil and gas production, a state legislature might decide that the need for uniformity in drilling standards outweighs the benefits of any local control over oil and gas development, leading to total preemption of local authority. However, if the legislature took a disaggregated approach, it could ensure uniform drilling standards through state preemption, while also taking advantage of local land use knowledge and experience by giving local governments some control over zoning decisions.[36]

This Part examines existing preemption doctrine, describing how even status quo preemption approaches seem to require disaggregation but often fail to spur courts down this path. It then explores the many benefits that could be reaped from a disaggregated approach to preemption.

A. Preemption Doctrines and Disaggregation

Understanding current approaches to preemption and their tendency to combine or disaggregate issues within a regulatory area requires a brief introduction to federal-state and state-local preemption doctrine. Legislatures are frequently the first entities to preempt another government's control over a particular regulated activity. State or federal policymakers often preempt lower-level regulation after a threat of regulation from a subordinate government. This type of preemption occurred in Texas and Oklahoma in 2015. For many years, these states allowed both local governments and state agencies to regulate various aspects of oil and gas development.[37] Indeed, many local governments in Texas extensively regulated oil and gas development alongside basic state regu-

35. *See infra* note 150 and accompanying text.

36. *See infra* note 150 and accompanying text.

37. Tysco Oil Co. v. R.R. Comm'n, 12 F. Supp. 195, 196–201 (1935) (describing how the state oil and gas regulatory commission issued orders augmenting the City of Houston's limits on drilling within very populous city areas).

latory regimes.[38] But when the city of Denton, Texas—which is near the Oklahoma border—banned a common oil and gas development technique called hydraulic fracturing,[39] the legislatures of both states promptly enacted statutes preempting most local control over oil and gas development.[40] Similarly, several state legislatures have preempted most local control over renewable energy development, fearing that "Not in My Back Yard" ("NIMBY") sentiments will impede a form of energy development valued by these states.[41]

Although some federal and state statutes rather clearly preempt lower-level control, in many cases legislatures or agencies have not addressed preemption of a regulatory area, the law is unclear, or parties disagree as to the nature and scope of preemption. In these cases, courts often interpret legislation and regulation—even laws that do not specifically address preemption—to create or avoid federal or state preemption of lower-level laws. Regulated actors that face regulatory barriers at the state or local level often trigger this judicial preemption determination. These parties often argue that existing laws prohibit local or state regulation, although they sometimes prefer local control if they view it as substantively less stringent. The effort to preempt local laws—but also to preserve state authority while resisting federal regulation—has been particularly strong in the area of oil and gas development. Oil and gas companies have persuaded at least three state courts and two federal courts that existing statutes and regulations preempt local control.[42] This approach to preemption is increasingly controversial; a growing literature on the institutions best suited to make preemption decisions, as well as an increasing number of Supreme Court cases, suggest that legislatures should have to indicate more clearly whether they are preempting a particular area, thus marginalizing the role of courts.[43] Nonetheless, courts remain active decisionmakers in the preemption context.

---

38. *Id.*; ARLINGTON, TEX., ORDINANCES GOVERNING OIL AND GAS (2011), https://perma.cc/M4GG-FX6P; Fort Worth, Tex., Ordinance No. 18449-02-2009 at 29 (Feb. 3, 2009), https://perma.cc/4HKN-X7YK.

39. Jim Malewitz, *Dissecting Denton: How a Texas City Banned Fracking*, TEX. TRIB. (Dec. 15, 2014), https://perma.cc/P4MR-42SA.

40. *See infra* notes 148, 151.

41. *See, e.g.*, MINN. STAT. § 216F.07 (2015); WIS. ADMIN. CODE PSC § 128.13(2) (2016).

42. *Supra* note 8; *infra* notes 131–147 and accompanying text. At the same time, these companies (and states) have successfully argued against federal regulation in many cases. *See* Hannah J. Wiseman, *Coordinating the Oil and Gas Commons*, 2015 B.Y.U. L. REV. 101, 142–43 (describing state and industry efforts to block federal regulation).

43. *See* Thomas W. Merrill, *Preemption and Institutional Choice*, 102 NW. U. L. REV. 727, 728 (2008) (noting the growing Supreme Court "view that preemption should be primarily a matter of legislative determination"). *But see* Ernest A. Young, *Making Federalism Doctrine: Fidelity, Institutional Competence, and Compensating Adjustments*, 46 WM. & MARY L. REV. 1733, 1736 (2005) (arguing that "courts legitimately can—and should—develop innovative doctrinal solutions to the problem of maintaining the federal balance").

When asked to interpret statutes or rules that purportedly preempt a lower-level regulation, courts find that preemption has occurred in one of three ways: express, conflict, and field preemption.[44] The same framework generally applies in cases involving federal preemption of state law and state preemption of local law (intrastate preemption),[45] although the tests sometimes differ slightly,[46] and the bases for preemption by the federal government or states differ.[47] Each of the three types of preemption is explored briefly here, in both the federal-state and intrastate contexts, to demonstrate how disaggregation should be a part of most preemption decisions. As written, this doctrine would appear to encourage or even require disaggregation at the judicial level. Indeed, Professors Hart and Wechsler—the fathers of modern federalism—observe that federal law "rarely occupies a legal field completely, totally excluding all participation by the legal systems of the states."[48] But as discussed in Part III, in practice courts conducting preemption analysis often do not engage in the type or extent of disaggregation proposed in this Article or even the disaggregation that current preemption doctrine would seem to call for. Legislatures, too, do not consistently follow a disaggregated approach.

---

44. *See* Kurns v. R.R. Friction Prods. Corp.,132 S. Ct. 1261, 1265–66 (2012) (describing express, conflict, and field preemption).

45. *See, e.g.*, Diller, *supra* note 6, at 1141 ("[A]ll but one state—Illinois—recognize some form of implied preemption. Most states subdivide implied preemption into categories similar to those used by the United States Supreme Court—'conflict' and 'field.'"); Spence, *supra* note 10, at 371 ("Courts' analyses of state-local preemption conflicts appears [sic] doctrinally similar to federal preemption cases . . . .").

46. The clearest difference in tests is the presumption again preemption, which purportedly applies in the federal-state context. This presumption applies because states retain authority over police powers (the power to regulate to protect the public health, safety, and welfare) reserved to them in the Tenth Amendment of the Constitution, whereas local governments are mere arms of state governments. Local governments only exercise authority that state governments have delegated to them. However, because many state constitutions give local governments home rule authority, this creates something close to (although not equal to) reserved powers exercised by the states. *See infra* notes 67, 76 and accompanying text; *see also* Outka, *supra* note 10, at 950 ("[T]he legal status of local governments is fundamentally different from states' position relative to the federal government . . . [T]he presumption against preemption, with its federalism-based justifications, is not a uniform element of intrastate preemption.").

47. Home rule authority granted to local governments under state constitutions does, however, give local governments some authority to resist state preemption of local law. Diller, *supra* note 6, at 1138 ("In most states, particularly those with legislative home rule, the legislature is free to expressly preempt any city ordinance."); *see also* Outka, *supra* note 10, at 948–54 (comparing federal and state preemption analysis and noting similarities and differences).

48. Paul Bator et al., Hart & Wechsler's Federal Courts and the Federal System 533 (3d ed. 1988).

1. Express Preemption

Through express preemption, a federal or state statute directly indicates that a lower-level government may not regulate in a particular area. On its face, express preemption doctrine would seem to require at least some disaggregation. All preemption cases, including express preemption, require a court to interpret the intent and purpose of a legislature.[49] In some cases, Congress clearly leaves certain portions of a regulatory area to the federal government and other portions to the states. In other cases, a court must interpret what appears to be broad express preemptive language to determine whether that language preempts all regulation within the field, or just certain aspects of the regulation. This, too, requires some degree of disaggregation.

a. Express Disaggregation

Express legislative intent to preempt partial areas of a regulatory field is perhaps most evident in the context of the safety of rail transport—an issue that is increasingly important to energy law because large quantities of crude oil and ethanol are now transported by rail.[50] In this area, Congress has clearly indicated an intent to preempt most state regulation—stating in the Federal Rail Safety Act ("FRSA") that laws "related to railroad security shall be nationally uniform to the extent practicable"[51]—but leaves small areas open to state control.

Although it preempts most state and local regulation, the FRSA allows subfederal entities to regulate rail safety if the federal agency tasked with rail safety regulation has not yet regulated in the area, providing that these entities may regulate "until" a federal agency has regulated or issued an order "covering the subject matter of the State requirement."[52] This approach allows and even requires some disaggregation because courts must ask whether the government has regulated a particular aspect of rail safety, such as operational aspects (who must be at the wheel of a locomotive and when, how fast trains may travel, the routes that trains may take, etc.) and technical aspects (whether trains must have automated brakes, how thick tankers must be so as to avoid rupturing

49. *See* Medtronic, Inc. v. Lohr, 518 U.S. 470, 485 (1996) ("'[T]he purpose of Congress is the ultimate touchstone' in every preemption case." (quoting Retail Clerks Int'l Ass'n v. Schermerhorn, 375 U.S. 96, 103 (1963))); Viet D. Dinh, *Reassessing the Law of Preemption*, 88 GEO. L.J. 2085, 2085 (2000).

50. Average crude oil and petroleum products shipped daily rose from approximately 0.6 million barrels in 2006 to more than 1.5 million barrels in 2014. *See Rail Deliveries of U.S. Oil Continue to Increase in 2014*, ENERGY INFO. ADMIN. (Aug. 28, 2014), https://perma.cc/773W-VLNC.

51. 49 U.S.C. § 20106(a)(1) (2012).

52. *Id.* § 20106(a)(2).

when they derail, etc.). In practice, however, this approach tends to preempt most state and local law because courts liberally interpret whether the federal government has already "covered" a regulated area and thus preempted sub-federal control.[53]

The FRSA also seems to call for disaggregation by allowing local and state governments to regulate even in rail safety areas "covered" by federal laws, regulations, and orders if the governments show that the regulations are necessary to address an essentially local hazard, are not incompatible with federal law, and do not "unreasonably burden" interstate commerce.[54] But very few state or local governments have persuaded courts that their rail safety regulations meet these three requirements.[55]

The Hazardous Materials Transportation Act also applies to rail transport, and, like the FRSA, expressly reserves certain portions of rail safety for the federal government but allows certain state and local regulations to fill in small gaps. Specifically, the Act prohibits state and local regulations that classify or designate specific substances as hazardous; regulate the packing and repacking, handling, or labeling of hazardous materials or the preparation of shipping documents for the material; require written notification that hazardous materials will be transported or reporting of spills; or require certain design specifications for containers used to transport hazardous materials.[56] States and local governments may regulate in other areas if these regulations do not present an obstacle to federal law, which requires conflict preemption analysis.[57]

In the intrastate preemption context, states sometimes expressly leave certain portions of a regulatory area to local governments. For example, when Texas and Oklahoma preempted most local control over the regulatory area covering oil and gas production, they expressly reserved to local governments the power to require land use setbacks (a minimum distance between wells and other resources like buildings) and regulate emergency response, among other limited local functions.[58] Further, when Wisconsin preempted local governments from regulating most aspects of commercial wind energy, it reserved limited areas of control for these governments, including certain land use, financial, and informational regulation as well as limited enforcement powers.[59]

53. *See infra* Part II.

54. 49 U.S.C. § 20106(a)(2)(C).

55. For one of the few cases allowing a state regulation in an area covered by federal law, see *In the Matter of the Speed Limit for the Union Pacific Railroad Through the City of Shakopee, State of Minnesota*, 610 N.W.2d 677, (Minn. App. 2000), which held that a railroad track running through the middle of the town's business district qualified as an "essentially local hazard."

56. 49 U.S.C. § 5125(b) (2012).

57. *Id.* § 5125(a).

58. *See supra* note 12 and accompanying text.

59. Wis. Admin. Code PSC § 128.33 (2016)

b. Express Preemption with a Broad Scope

In some cases, Congress or a state legislature expressly preempts an entire regulatory area, thus appearing to leave little room for disaggregation. But two principles require the courts to look more closely and to ascertain whether, in fact, the entire regulatory area is preempted. First, because the "touchstone" of preemption cases is Congressional intent—in large part to preserve the separation of powers between the judicial and legislative branches—courts addressing preemption questions must look past what might appear to be full preemption.[60] Further, for federal preemption questions, because "the Court favors 'a narrow reading' of express preemption clauses, at least when the states' traditional powers to legislate for the general health, safety, and welfare are at stake,"[61] courts must ask whether Congress has, in fact, expressly preempted the whole regulatory area or left some room for the states. In other words, in the federal-state context courts should be particularly wary of broadly interpreting express preemption within a statute when this broad interpretation would interfere with an area of traditional state authority. This doctrine in favor of narrowly interpreting express preemption is closely related to two other doctrines applied in all federal preemption cases, including express preemption cases. First, the "plain statement" doctrine in federalism law requires courts to find preemption only when Congress has clearly expressed an intent to preempt.[62] Courts have linked this rule to the importance of protecting areas of traditional state authority.[63] Second and similarly, narrowly interpreting express preemption of state authority helps to protect the presumption against preempting states' police powers reserved to them within the Constitution.[64] Although

60. *Cf.* Susan Raeker-Jordan, *The Pre-emption Presumption That Never Was: Pre-emption Doctrine Swallows the Rule*, 40 ARIZ. L. REV. 1379, 1469 (1998) ("If the presumption against pre-emption and the clarity requirement are to mean anything at all, in a case where the language used by Congress does not clearly pre-empt state common law, the Court should find that pre-emption be limited to that which Congress did clearly pre-empt. In a case where the statute expressly pre-empts, for example, state 'requirements,' pre-emption should clearly extend to regulations, which in the usual meaning impose requirements. Outside that clear pre-emptive scope, courts should not search for amorphous purposes that could be obstructed . . . .").

61. Nelson, *supra* note 21, at 227.

62. Dinh, *supra* note 49, at 2093 (describing the plain statement rule in the federal-state preemption context). Several states also have plain statement rules. *See, e.g.*, Palermo Land Co. v. Planning Comm'n of Calcasieu Parish, 561 So. 2d 482, 497 (La. 1990) ("Local power is not pre-empted unless it was the clear and manifest purpose of the legislature to do so.").

63. *See* Gregory v. Ashcroft, 501 U.S. 452, 465 (1991) ("This plain statement rule is nothing more than an acknowledgment that the States retain substantial sovereign powers under our constitutional scheme, powers with which Congress does not readily interfere."); Dinh, *supra* note 49, at 2093.

64. *See* Nelson, *supra* note 21, at 290–91 (describing the presumption).

scholars increasingly question the relevance of this presumption,[65] courts continue to purport to apply it.[66]

This same hesitance to broadly interpret express preemptive language should, and sometimes does, apply in the intrastate preemption context. Unlike states, local governments have no independent, inherent, reserved authority to govern in particular areas. They receive all of their authority from states, and act only as an "arm of the state" where the state has chosen to delegate certain authority to local governments.[67] States delegate certain of the powers reserved to them under the U.S. Constitution—the police powers granting states the authority to govern for the public health, safety, and welfare—to local governments in one of two ways.[68]

In states that follow a rule called "Dillon's Rule," municipalities only exercise powers explicitly delegated to them.[69] In these states, local governments lack the inherent authority to govern even matters within their own jurisdiction, and a court might be more likely to find that a state legislature preempting local authority in a particular regulatory area, such as the regulation of oil and gas development, has preempted *all* local authority over oil and gas development. On the other hand, even in Dillon's Rule states, legislatures have typically delegated to local governments broad land use authority—specifically, the authority to determine which uses of land (including industrial uses such as oil and gas or renewable energy development) should be allowed in which portions of their jurisdiction. Thus, courts might be hesitant to find that state preemption of local control in a regulatory area like oil and gas development has preempted local land use regulation of this development.

In contrast, "home rule" states have granted municipalities broader powers to regulate various matters within their jurisdiction.[70] Home rule powers vary widely depending on the state language creating home rule, which is found in state statutes or the state constitution.[71] Legislatures can preempt local authority that they previously delegated to local governments—even home rule authority.[72] However, legislative preemption of constitutional home rule authority can be more difficult to accomplish, and certain courts are hesitant to preempt

65. *See* Dinh, *supra* note 49, at 2092 ("[T]he federal structure does not support a general preemption presumption . . . .").

66. *See, e.g.*, Riegel v. Medtronic, 552 U.S. 312, 334 (2008) (applying the presumption and citing to numerous early cases that applied the presumption).

67. Richard Briffault, *Our Localism: Part I—The Structure of Local Government Law*, 90 COLUM. L. REV. 1, 85 (1990).

68. *See* Note, *The Legitimate Objectives of Zoning*, 91 HARV. L. REV. 1443, 1444 (1978).

69. *See* Diller, *supra* note 6, at 1122; Briffault, *supra* note 67, at 8.

70. Briffault, *supra* note 67, at 10.

71. *Id.*

72. Wallach v. Town of Dryden, 16 N.E.3d 1188, 1203 (N.Y. Ct. App. 2014).

this authority.[73] The stronger the language creating "organic" municipal authority, the more this language might dissuade a state court from finding state preemption of local law. For example, Colorado's constitution allows local governments to supersede state authority when regulating purely municipal affairs that do not have extraterritorial impacts.[74]

Despite varying home rule language, state constitutional grants of home rule authority to local governments create protected spheres of local power that are somewhat similar to the police powers reserved to the states by the Tenth Amendment.[75] In states where local governments have constitutional home rule authority, courts should be hesitant to find that express preemption of local control preempts this authority.[76] Thus, just as federal courts interpret seemingly broad express preemption narrowly in order to protect the states' reserved police powers, one line of reasoning suggests that state courts should similarly interpret seemingly broad express preemption narrowly in order to protect local governments' home rule authority created by state constitutions.[77] Indeed, as David Spence notes, when courts attempt to ascertain whether a state legislature has regulated the "how" of fracturing (technologies and operations, for example) as well as the "where" of fracturing (setbacks and other land use rules, for example), even within the "how" or "where" category it is difficult for courts to ascertain whether the legislature intended to preempt all aspects of the category, such as both setbacks and zoning designations.[78]

2. Conflict Preemption

In conflict preemption, there is typically no statute that clearly preempts lower-level regulation,[79] but this lower-level regulation interferes with federal or state regulation in one of two ways. First, complying with both the lower-level

73. *Id.* ("But we do not lightly presume preemption where the preeminent power of a locality to regulate land use is at stake.").

74. COLO. CONST. art. XX, § 6 ("Such charter and the ordinances made pursuant thereto in such [purely local] matters shall supersede within the territorial limits and other jurisdiction of said city or town any law of the state in conflict therewith.").

75. For theoretical arguments in support of stronger home rule, and treating local governments as more than an "arm of the state," see Richard Briffault, *Our Localism: Part II—Localism and Legal Theory*, 90 COLUM. L. REV. 346 (1990).

76. *See, e.g.*, *Wallach*, 16 N.E.3d at 1203 (observing that courts in a constitutional home rule state "do not lightly presume preemption where the preeminent power of a locality to regulate land use is at stake").

77. *See id.*; Outka, *supra* note 10, at 951 ("[I]f local governments are constitutionally empowered to act independently within certain spheres, then a state law purporting to prevent local action would be deemed unconstitutional.").

78. Spence, *supra* note 10, at 373.

79. In some cases, statutes expressly preempt most of an area but allow conflicting or more stringent local and state regulation in limited circumstances. *See, e.g.*, *supra* note 54 and accompanying text.

regulation and the statute would be impossible, thus requiring the higher-level statute to "trump" the lower-level one.[80] Second, the lower-level regulation might serve as an obstacle to the purpose of the higher-level law or might otherwise impede the achievement of goals of the higher-level law.[81]

Courts sometimes invoke the conflict preemption doctrine because legislatures require them to. For example, in the rail safety context, when state and local governments regulate in areas already "covered" by regulation, local governments must demonstrate, among other things, that the state or local law "is not incompatible with a law, regulation, or order of the United States Government."[82] The Hazardous Materials Transportation Act introduced above also statutorily establishes conflict preemption. In the regulatory areas in which states are not expressly preempted from regulating, it prohibits state laws (unless otherwise authorized by the Act) that would make complying with federal hazardous materials transportation laws "not possible" or would be an obstacle to carrying out the Act.[83]

Both conflict preemption doctrines, including a lower-level law causing non-compliance with a higher-level law or creating an obstacle to achieving its goals, call for disaggregation. For example, if a federal or state permitting scheme requires an oil or gas operator or wind energy developer to install certain safety technologies, a local land use regulation that specifies the required *location* of this infrastructure might or might not conflict with this higher-level regulation. The state and federal government could require certain safety equipment—technologies to prevent oil and gas wells from exploding during drilling and fracturing, and cables to secure wind towers and turbines, for example—and the local government could specify the zones in which wells and wind farms were to be located; the developer could comply with both laws. Further, requiring energy equipment to be located in certain zones that are not heavily populated might further accomplish the safety goals of the higher-level technological requirements rather than posing an obstacle to them.

Simply put, conflict preemption analysis seems to force a court to consider whether different types of regulation are irreconcilable. However, courts do not always take seriously this ostensible requirement for disaggregation. For example, when the City of Munroe Falls, Ohio regulated certain aspects of oil and gas development, the Ohio Supreme Court interpreted all of these local regula-

80. *See* Merrill, *supra* note 43, at 739–40.

81. Merrill notes that although conflict preemption is often described as one category, obstacle preemption is substantially different from an actual conflict, in which a state regulation would trump a federal one, whereas in obstacle preemption "[s]tate law is wiped out in order to provide for more effectual vindication of the perceived purposes or objectives of federal law." *Id.*; Outka, *supra* note 10.

82. 49 U.S.C. § 20106(a)(2) (2012).

83. *Id.* § 5125(a).

tions as conflicting with state law despite the conflict not being apparent.[84] Among other things, the state interpreted the fact that both the state and city required an energy company to obtain a permit before commencing oil and gas development as a conflict.[85] The court acknowledged that an operator could comply with both the city and the state permitting requirements, but it objected to the additional financial regulations imposed by the city, such as requiring the company to post a bond that would provide funds if drilling caused damages.[86] It was not clear, however, that this local financial regulation frustrated the purpose of the state statute, as it still allowed drilling to proceed,[87] and the local bond amount represented a very small percentage of the costs of drilling and fracturing a well.

3. Field Preemption

Field preemption—perhaps even to a larger extent than express or conflict preemption—calls for explicit disaggregation, although, once again, courts do not always follow a fully disaggregated approach. In field preemption cases, a court examines whether the quantity and type of statutes and regulations that exist at the federal or state level suggest that the legislature intended to "occupy the field" of the particular regulatory area—say, oil and gas development—and left no room for lower-level regulation.[88] The very purpose of field preemption is to force a court to look at the many different types of regulation within a given regulatory area and to determine whether these regulations fill the field completely.

But as with express and conflict preemption, this approach does not necessarily lead to disaggregation. Courts often broadly define the field but then fail to parse the specific types of regulation that are included within that field. For example, when the City of Morgantown, West Virginia banned hydraulic fracturing, a county court refused to acknowledge that although the State of West Virginia regulated many technical and operational aspects of fracturing, the regulatory framework did not cover many of the land use-based aspects of fracturing.[89] Morgantown may not have retained the authority to use its land use powers to wholly ban hydraulic fracturing, as this would frustrate the purpose of state regulations allowing oil and gas production and thus cause conflict pre-

84. Ohio *ex rel.* Morrison v. Beck Energy Corp., 37 N.E.3d 128, 138 (Ohio 2015).

85. *Id.* at 135.

86. *Id.* at 135–36.

87. The court justified its holding by noting precedent that imposes a very strict interpretation of conflict preemption, one that prohibits a local ordinance from in any way "restricting" "an activity which a state license permits." *Id.* at 135.

88. *See supra* note 24 and accompanying text.

89. Ne. Nat. Energy v. Morgantown, No. 11-C-411, 2011 WL 3584376 at 8 (W. Va. Cir. Ct. Aug. 12, 2011).

emption problems. But Morgantown likely retained limited land use authority, such as the authority to establish the zoning districts in which oil and gas wells are permitted, and thus the entire field is not preempted. The county court instead held that the entire field of oil and gas regulation is preempted by state law.[90]

B. The Advantages of a Disaggregated Approach

Beyond judicial doctrines that seem to call for the disaggregation procedures described above, disaggregation at both the legislative and judicial levels would fit well with several aspects of the federalism and subsidiarity literatures. First, as introduced above, it could provide some compromise within the seemingly intractable debate between centralists and decentralists. Requiring a court or legislature to consider giving different levels of government control over different aspects of a regulatory area will not necessarily lead to different levels of government having this control, but it increases the likelihood of having one level of government regulate one aspect of an activity and another level regulate another aspect of an activity.

Pennsylvania's approach to preemption partially demonstrates how a disaggregated framework can capture several values of centralization and decentralization. In 2012, Pennsylvania's legislature attempted (unsuccessfully) to preempt all aspects of local government regulatory control over oil and gas development—even land use decisions about the types of zoning districts in which wells could be located.[91] But it partially disaggregated its decision by recognizing that financial regulation, such as taxation, is separate from other aspects of oil and gas regulation. Specifically, the legislature gave local governments the power to impose a fee on each well drilled within their jurisdiction.[92] Some of the money from this fee goes to the state to address statewide impacts of natural gas development, but much of it is redistributed to local governments to address the environmental and social impacts of gas development within their jurisdictions.[93] Under this approach, local governments can listen to their constituents regarding the impacts that are most troublesome to them and target those impacts with the fee revenues, thus somewhat enhancing local government accountability to citizens' concerns. And for those who support more centralized control due to the uniformity that it provides to regulated actors like oil and gas companies, which frequently operate in multiple jurisdictions, Pennsylvania's centralized environmental regulations provide this uniformity

90. *Id.* at 9.

91. 58 PA. CONS. STAT. § 3304 (2015), *invalidated by* Robinson Twp. v. Commonwealth, 83 A.3d 901, 977–82 (Pa. 2013).

92. *Id.* § 2302(a).

93. *Id.* § 2314(g).

while still giving local governments some control over the impacts of oil and gas development.

Intertwined with the tendency of disaggregation to balance different federalism values is the ability of this approach to recognize the comparative advantages of local, state, and federal governments by considering which of these governments should regulate a particular portion of a regulatory area. Again, take the rapidly expanding regulatory area of oil and gas production as an example. States or the federal government could regulate all technical aspects and most operational aspects of production, identifying the pollution control technologies that must be installed at each well site and the required frequency of testing and verifying the effectiveness of technologies. This would create some degree of uniformity of regulation and would prevent energy companies from having to change technologies and operational approaches at well sites each time they crossed local or state lines. Local governments, in turn, could exercise primary authority over land use determinations, deciding whether oil and gas production should be allowed in particular zones and the minimum required distance between rigs and nearby structures.[94] In making these sorts of determinations, local governments could address certain unique, localized conditions such as sensitive environmental resources and could more closely address the unique demands of residents in the area. Local governments could also experiment with different approaches and share results with other governments.[95] For example, local governments could identify the minimum setback between a well and nearby resources that would minimize damage, and other governments could learn from this approach.

Enforcement responsibilities could perhaps be shared by state and local governments, with state and local officials both having the authority to inspect well sites and issue violations, provided that dual, overlapping penalties would not be issued for the same incident. This would ensure that local officials, who are physically closer to the well sites and able to more quickly respond to incidents, could address problems that they identified or alert state inspectors to these problems.

Disaggregation of preemption is a wholly procedural approach. It does not require decisionmakers to analyze particular values in their decisionmaking process, or to choose one value over another. Decisionmakers would remain free to consider all of the competing values of preemption and would continue to take varied and conflicting approaches to preemption cases. A judge or legislator

94. *See* Arlington, Tex., Ordinances Governing Oil and Gas, art. VII, § 7.01(B) (2011), https://perma.cc/M4GG-FX6P (requiring a 600-foot well setback); Fort Worth, Tex., Ordinance No. 18449-02-2009 at 29 (Feb. 3, 2009), https://perma.cc/4HKN-X7YK (same).

95. *See* Hannah J. Wiseman, *Regulatory Islands*, 89 N.Y.U. L. Rev. 1661, 1704 (2014) (describing how local governments sometimes share the content of their regulations and regulatory experiences, but noting limited diffusion).

could look at each piece of a regulatory field—taxation, land use authority, and so on—and simply ask which government has more expertise and resources in this area and could therefore more effectively regulate it. Additionally, the judge or legislator could ask whether the particular area of regulation requires careful consideration of localized impacts or would be well tailored to experimentation, or whether the negative consequences of experimentation would be permanent and should be avoided. Regardless of how or which values were weighed, making a separate inquiry into the different components of regulation forces decisionmakers to consider certain advantages and disadvantages that local, state, or federal governance might offer in each area, leading to better governance and greater transparency.

Considering the different strands of a regulatory area, such as technical, operational, and land use-based components, would also force decisionmakers to provide more explanation for their decisions and thus more transparency because they would have to justify a choice to preempt or not preempt various types of regulation. For example, requiring a judge or legislator to explain why she is preempting local land use authority in a particular regulatory area would encourage her to explain why she is removing local authority in an area of traditionally local control. In many cases, decisionmakers might have a good explanation for preempting local land use control—pointing to NIMBY attitudes that are blocking needed development, for example.[96] But they will at least have produced an explanation—one that is more easily reviewable on appeal or subject to deliberation within the legislative process.

Consideration of different regulatory strands by judges will also promote accountability, giving parties an opportunity to make a case for the various federalism-based or practical values that might be captured by different levels of government acting in different parts of the regulatory area. Even if one federalism value wins out over another, or the parties believe that the government that would have a comparative advantage in regulating one portion of the regulatory area did not get the powers it was due, disaggregation provides opportunities for the airing of these concerns and, sometimes, their amelioration.

Considering each portion of a regulatory area and making a preemption decision for each of these regulatory components also better comports with what New Federalism scholars argue is the new reality of federalism. These scholars describe federalism not as a clear division between state and federal

96. *See, e.g.*, Outka, *supra* note 10, at 980–81 ("A number of scholars have argued for more centralized siting regimes for wind out of concern that local governments may stymie renewable energy development with NIMBY ("not in my backyard") regulation."); *id.* at 984 (questioning "the common view that the primary effect of local government resistance is to frustrate development" and concluding that "the overall trend of unprecedented growth in both fracking and wind belie the notion that local regulation is necessarily at odds with state objectives favoring energy development"); *cf.* Spence, *supra* note 10, at 388–89 (noting the NIMBYism/overregulation concern but concluding that this is not a large risk).

governments, but rather as a sphere of shared, overlapping authority, where different levels of government negotiate with each other and jostle for control over portions of a regulatory area,[97] or state and federal governments sometimes act in parallel. For example, under the Affordable Care Act, state governments may implement their own healthcare exchanges if they meet federal requirements, or they may simply rely on federal exchanges.[98]

Many New Federalism scholars see benefits in this reality, noting, for example, that maintaining different levels of governmental control over parts of a regulatory area can create checks and balances. When local, state, and federal entities all retain some stake in the governance of a particular regulated activity, if one government fails to adequately regulate or imposes unduly burdensome regulations, other levels of government can calibrate their approaches accordingly.[99] Disaggregated preemption—where it leads to several levels of governmental control within a regulatory area—can create a structure that promotes these checks and balances. For example, if states controlled oil and gas production technologies and local governments controlled the location of oil and gas wells, and if states failed to require adequate pollution control technologies, then local governments could enact stricter location-based regulations. If local governments were concerned that pollution would leak from wells, these governments could require larger setbacks between well sites, environmental resources, and human populations.

While different levels of government might happen to beneficially check and balance each other, legislatures can also craft a legislative approach that purposefully creates these checks and balances. Pennsylvania seemed to take this approach in its 2012 preemption decision. Although the legislature attempted to force local governments to accept natural gas development everywhere—even in residential areas—it seemed to recognize that this could cause negative impacts in areas that otherwise would have been off limits to development. It therefore granted local governments the power to impose a fee on wells and to use this fee to address the impacts of development.[100]

Finally, disaggregation will sometimes accomplish the goals espoused by proponents of subsidiarity, who argue that power should rest at the smallest possible level of government, or—under a broader view of subsidiarity—at numerous levels of government.[101] Indeed, some have argued that the U.S. system

97. Ryan, *supra* note 28.

98. Gluck, *supra* note 28, at 539–40.

99. *See supra* note 1. *See generally* Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131 (2012) (exploring how different agencies operating within the same regulatory area can serve important functions, including reviewing and questioning other agencies' approaches and filling in where other agencies leave gaps, among other benefits).

100. 58 PA. CONS. STAT. § 2302(a) (2016).

101. *See* Blank, *supra* note 32.

of federalism already encompasses certain aspects of subsidiarity, and that federalism could more directly embrace subsidiarity principles.[102]

In summary, existing doctrine in all three preemption areas seems to point toward a disaggregation approach to preemption, and the potential benefits of disaggregation are substantial. Yet legislatures that establish preemption through statutes, and court cases that interpret these statutes using the three doctrines discussed above, do not disaggregate regulatory areas as consistently or thoroughly as one might expect. The following Part proposes a more consistent, detailed approach to disaggregation, in which legislatures would consider the many components of a regulatory area and decide which components of the area, if any, to preempt. Further, courts applying the three preemption doctrines should more closely investigate the many pieces of a regulatory area to determine whether certain pieces have not been expressly preempted, do not conflict with higher-level regulations that address other portions of the regulatory area, and fall outside of the scope of field preemption, thus potentially leaving some room for state and local governance.

II. The Disaggregation Framework: Identifying the Relevant Components of Regulation

For courts and legislatures to capture the benefits of disaggregation, they must be able to break down a complex set of regulations and decide which portions should be entrusted to the competing levels of government. This Article therefore proposes that legislatures considering preemption of a particular regulatory area, or courts interpreting existing legislation to determine what it preempts, if anything, should begin from a disaggregated baseline. Specifically, legislatures should not enter the decisionmaking process with an assumption that one level of government should control the entire regulatory area. Rather, they should investigate the particular regulatory area and identify its separate components, and consider—in light of different governments' comparative advantages and values offered by placing authority at different levels—which governments should control which components of an area. While this still might lead to a decision that allocates all authority at one governmental level, legislators will at least have considered the benefits and disadvantages of this all-or-nothing outcome.

Courts should similarly avoid starting their analysis from a baseline that assumes that the legislation before them should be interpreted to give one level of government full control, to the exclusion of all others. Courts, of course, will have less freedom to disaggregate than legislatures. In determining whether a government has preempted another government, courts are limited to legislative intent and the preemption doctrines—such as the plain statement rule in the federal context—designed to guide courts in ascertaining legislative intent.

102. Calabresi & Bickford, *supra* note 20.

But often, legislation preempting a particular area fails to give courts clear indications of congressional intent. These many gray areas of preemption leave room for judicial interpretation that considers how traditional state powers—or local powers, in the intrastate preemption context—might be preserved while also leaving room for the benefits of centralized control, such as uniformity.

Demanding that courts and legislatures consider different components of a regulatory area and determine which level of government might best control that component is a complex task. A given set of regulations could potentially be divided into hundreds of pieces, and regulatory fields are categorized and divided in different ways depending on the analytical context.[103] Thus, it is critical to break down regulation in a manner that is workable, allowing legislators and judges to relatively easily recognize and independently analyze which government should regulate in which portion of a regulatory area. Fortunately, this is not as difficult as it might seem. Well-established categories of regulation—such as land use rules and technological standards that require certain technology to be used to reduce pollution or enhance the safety of a regulated activity—already exist, and readily map onto various values and expertise that the federalism literature already attributes to local, state, or federal governments. For example, it is already acknowledged that certain technology-based standards are best established at the federal or state level in order to capture the value of uniformity.[104] It would not be feasible for train operators to change the type of braking system that they used when they crossed each state or local line, or for automobiles to change out catalytic converters that control air pollution from tailpipes as they made an interstate trip.[105] Further, giving centralized government control over technology-based regulations grants authority to the governments that tend to have the most expertise and resources to hire experts, thus entrusting technical, detailed standards to the most knowledgeable level of government.[106] Giving the category of "land use authority" to local govern-

103. *See, e.g.*, Cary Coglianese & David Lazar, *Management-Based Regulation: Prescribing Private Management to Achieve Public Goals*, 37 LAW & SOC'Y REV. 691, 692–98 (2003) (categorizing regulation generally as "technology-based" or "performance-based," meaning that "[r]egulators can craft rules that either mandate specific technologies or behaviors (technology-based regulation) or require that certain outcomes will be achieved or avoided (performance-based regulation)" and adding a third category of "management-based" regulation, which requires regulated entities to manage themselves in a particular way—to establish and follow certain internal rulemaking procedures and plans).

104. *See, e.g.*, Mo. Pac. R.R. v. R.R. Comm'n, 850 F.2d 264, 268 (5th Cir. 1988) (noting that "it is difficult to imagine a state regulation of the train itself, as opposed to the right of way, which could escape being a burden upon commerce" and that under Texas's preempted law requiring a train caboose when federal law did not, "[f]reight trains entering the state would be required to stop and add a caboose").

105. *See* 42 U.S.C. § 7543 (2012).

106. Of course, state or local governments, having historically exercised authority in certain regulatory areas, have more expertise in those areas. *See, e.g.*, Ryan, *supra* note 1, at 627 (noting that the "federal government will lack competence in many regulatory arenas demanding local expertise").

ments, on the other hand, might better ensure that these governments, which are more aware of unique local geography and other conditions,[107] respond to the demands of residents in terms of avoiding incompatible land uses. This can enhance the accountability of governments, making them more responsive to constituent concerns.

This Article identifies five general categories or "strands" within a regulatory area that, when analyzed in the energy law case studies explored here, would allow legislatures and courts to productively compare local, state, and federal governance advantages within the regulatory area. These categories include regulations that are land use-based, technological or operational, financial, information disclosure-based, or involve regulatory enforcement. Within each of these categories, courts following a disaggregated approach would ask whether a local, state, or federal government, or a combination of these governments, would best regulate due to comparative expertise and the values associated with assigning authority to one of these governance levels. The limited disaggregation approaches discussed in Part III, although disparate in their approach and often only recognizing one of these categories, seem to collectively use these five categories.[108] This trend suggests that these categories would be somewhat familiar to judges or legislatures, and thus workable.

One of the most common targets of an environmental or energy-based regulatory decision is the physical location of an activity—a land use-based regulation. Rather than, or in addition to, controlling the pollution from an activity, separating the activity from human populations and sensitive environmental areas and resources can greatly reduce the risks of that activity. Land use regulation thus involves decisions about the areas ("zones") in which physical energy infrastructure may be used, the specific sites on which it may be placed, and the required setbacks between energy infrastructure and other resources such as buildings or certain environmental features. For example, various levels of government regulate the routes that trains carrying oil may follow,[109] setbacks be-

107. *Id.* at 661–62 (noting certain areas in which "only local actors would have the relevant expertise" and could address "unique local characteristics").

108. Indeed, others have recognized these, or similar, categories in the energy law context. *See, e.g.*, Spence, *supra* note 10, at 370 ("[M]ost state oil and gas regimes now regulate (via permitting) things like well-construction standards (casing and cementing requirements); the handling, storage, and disposal of fracking fluids and wastewater; disclosure of fracking fluid constituents; setback requirements from structures; and more.").

109. *See infra* note 183 and accompanying text (discussing requirements for trains carrying certain materials to remain a minimum distance from population centers).

tween oil and gas wells or wind turbines and certain resources,[110] and the zoning districts in which oil and gas wells or wind turbines are permitted.[111]

Another common category of regulation requires a regulated entity to actively do something, such as installing a particular piece of pollution-reducing technology. This Article refers to this type of regulation as technological regulation. A prescriptive "operational" requirement often accompanies technical requirements, such as a requirement that pollution-reducing technology be maintained in good working order and periodically tested. For example, oil and gas operators must regularly test certain required safety technologies, such as blowout preventers that prevent wells from exploding due to pressures encountered underground, to ensure that these technologies are working.[112] Further, operators of trains are required to have certain types of certified engineers within a locomotive when the train is moving.[113] And in the renewable energy context, operators of wind farms sometimes have to stop wind turbines from running at certain times, particularly when birds or bats are migrating.[114]

Third, several decisionmakers have identified financial regulations as a separate regulatory category. These financial regulations, such as fees or taxes imposed on a regulated entity,[115] often ensure that if negative impacts occur despite land use-based, technological, and operational requirements, there is money available to address these impacts. Fees imposed on an industrial activity also sometimes provide funds needed for regulatory program staffing.[116] In lieu of or in addition to taxes or fees, many states also have bonding requirements

110. *See, e.g.*, 2 COLO. CODE REGS. § 404-1:317B (2016) (requiring setbacks between oil and gas wells and public water supplies and establishing buffer zones in which certain protective technologies and practices are required); MICH. ADMIN. CODE R. 299.2341 (2016) (requiring setbacks between certain oil and gas equipment and public water supplies); OHIO ADMIN. CODE 1501:9-1-05 (2016) (providing that "[n]o well shall be drilled nearer than one hundred feet to any inhabited private dwelling house"); WIS. ADMIN. CODE PSC § 128.13 (2016) (requiring setbacks between wind turbines and certain types of buildings and roads).

111. *See, e.g.*, Howard County, Neb., Planning and Zoning Regulation 32, 246–56 (Feb. 23, 2016), https://perma.cc/4M97-65KX (showing the zoning districts in which wind energy development is allowed and providing setbacks and safety and design standards); Patricia Salkin, *The Key to Unlocking the Power of Small Scale Renewable Energy: Local Land Use Regulatio*n, 27 J. LAND USE & ENVTL. L. 339, 354–62 (2012) (describing zoning for renewables); John R. Nolon & Jessica A. Bacher, *Wind Power: An Exploration of Regulations and Litigation*, N.Y.L.J., Feb. 20, 2008, at 5, https://perma.cc/8S3X-739Z (same).

112. *See supra* note 16.

113. 49 C.F.R. § 240.7 (2016).

114. *See, e.g.*, Timothy B. Wheeler, *Wind Project Curbed to Reduce Bat Deaths*, BALTIMORE SUN (Feb. 3, 2014), https://perma.cc/TFC3-X2D4.

115. *E.g.*, 58 PA. CONS. STAT. § 2302(a) (2016).

116. *See* Hannah J. Wiseman, *The Capacity of States to Govern Shale Gas Development Risks*, 48 ENVTL. SCI. & TECH. 8376, 8384 (2014) (describing state fee structures). However, fees imposed on a per-well basis, which are used to fund agencies or address the impacts of wells, might sometimes encourage overdevelopment because agencies will be tempted to issue permits to obtain needed funds.

for oil and gas wells[117] and renewable energy installations,[118] requiring operators to post money or other financial assurances in the event that energy infrastructure is improperly abandoned and creates a safety hazard that must be addressed by the state.

Many regulations also contain "soft" informational requirements for energy companies to provide notice to neighboring landowners before they install infrastructure,[119] to disclose certain information about the pollutants they generate or the chemicals that they use in their operations,[120] and other disclosure. This disclosure both alerts potentially affected parties to upcoming activity—inviting them to participate in relevant proceedings—and allows governments to monitor industry compliance with rules and thus to effectively enforce rules.

Finally, a necessary component of any regulatory program—and one that typically requires funding—is the enforcement of regulations that are on the books. Land use-based, technological, operational, financial, and information disclosure requirements would be ineffective if regulators did not have a mechanism for monitoring whether regulated entities were following these requirements, and for penalizing noncompliance. Indeed, the disaggregation of enforcement from other aspects of regulatory regimes already occurs beyond the energy regulatory context, and it is increasingly recognized within legal regimes and legal scholarship. In the environmental context, EPA regulates stationary sources of air pollution, such as power plants, but requires states to implement and enforce the regulation.[121] And federalism scholars increasingly recognize that the federal government, by retaining certain regulatory authority but giving states responsibilities for implementing and enforcing a regulatory program, can draw on existing state expertise in certain areas and conduct a federally monitored regulatory experiment.[122] Further, at the state-local level, local governments and even less formal citizen groups might be the ideal enforcers of certain problems—particularly problems like air quality that vary substantially among neighborhoods.[123]

---

117. *See infra* note 192 and accompanying text.

118. *See infra* notes 192, 195 and accompanying text.

119. *See infra* note 151 and accompanying text; *see also, e.g.*, 765 ILL. COMP. STATS. 530/4 (requiring notice to surface owners before drilling a well).

120. For a discussion of hydraulic fracturing disclosure requirements, see generally Hall, *supra* note 18, and Hannah J. Wiseman, *Trade Secrets, Disclosure, and Dissent in a Fracturing Energy Revolution*, 111 COLUM. L. REV. SIDEBAR 1 (2011).

121. 42 U.S.C. § 7410 (2012).

122. Gluck, *supra* note 28, at 564–69.

123. *See, e.g.*, Dara O'Rourke & Gregg P. Macey, *Community Environmental Policing: Assessing New Strategies of Public Participation in Environmental Regulation*, 22 J. POL'Y ANALYSIS & MGMT. 383 (2003) (analyzing the effects of bucket brigades through case studies and noting positive results).

* * *

Not all areas of regulation encompass the regulatory categories identified here. For example, education or securities regulations, unlike environmental and energy law, do not typically require physical technologies, aside from particular textbooks that must be used[124] or computer software or hardware that must be installed to monitor potential trading fraud.[125] Those areas tend to have more operational or behavioral standards, as well as information disclosure and reporting.[126] But vastly different areas of regulation have surprising similarities: nearly all require some sort of notification and information disclosure to allow for better monitoring;[127] some sort of regulatory enforcement regime involving fines or other penalties; and behavioral or operational standards that must be followed, such as regularly testing securities software designed to prevent market disruptions[128] or testing safety equipment on oil and gas rigs to ensure that it is in good working order.[129]

The fact that categories will not always be identical across regulatory fields is not problematic for the disaggregation framework. All that the framework asks is for judges and legislatures to follow a particular procedure. Whether a legislature is considering preempting a regulatory area or a court is applying one of the three preemption doctrines examined above, the goal is for this decision-making body to look at various portions of the regulatory area that would be better regulated at the local, state, or federal government level for reasons of accountability, expertise, uniformity, and various other federalism values, and to separately decide which level of government should regulate within each area. While this still might lead to one level of government regulating all areas, this approach to disaggregation, which involves clearer and more thorough disaggregation than typically has occurred, provides powerful benefits. A range of

124. *See, e.g.*, NEV. REV. STAT. § 390.230 (2013) (providing that "the textbooks adopted by the State Board must be used in the public schools in this State, and no other books may be used as basic textbooks").

125. *See, e.g.*, Eric Hammesfahr, *SEC Adopts Rules to Curtail Market Glitches*, CQ ROLL CALL, Nov. 19, 2014, 2014 WL 6473383 (describing a new Securities and Exchange Commission rule that requires certain computers and software to ensure "adequate levels of capacity, integrity and security," issued in response to a software glitch that impacted the Facebook initial public offering).

126. *See, e.g.*, 7 U.S.C. § 6s (2012) (recordkeeping and reporting requirements for swap dealers).

127. *See, e.g.*, *id.*; 42 U.S.C. § 7661c (2012) (requiring each Clean Air Act permit for a major stationary source for air pollution to contain "reporting requirements to assure compliance with the permit terms and conditions"); CAL. INS. CODE § 900.2 (2016) (requiring each insurer doing business in the state to have an annual audit, including "auditor and management reporting").

128. *See* Hammesfahr, *supra* note 125.

129. *See, e.g.*, N.Y. COMP. CODES R. & REGS. tit. 6, § 554.4 (2016) (requiring testing of blowout preventers, which prevent certain explosions at oil and gas wells).

legislative actions and judicial decisions demonstrate how disaggregation can result in outcomes in which different levels of government retain jurisdictional control within their areas of expertise and, potentially, balance out problems that arise when governance at a different level leaves gaps. Existing decisions that show disaggregation in practice typically involve partial, ad hoc disaggregation and not the systematic commitment to parsing each preemption decision envisioned here. But the energy law case studies explored in the following part demonstrate the promise of this approach and the problems that can ensue when it is not followed.

III. Disaggregation Case Studies

Legislatures' and courts' approaches to preemption decisions vary considerably, rarely exhibiting a cohesive framework or theory.[130] Many tend to make all-or-nothing decisions, preempting or refusing to preempt an entire regulated area and relying on a range of justifications for doing so. But even legislatures and courts that use this binary approach recognize, to a limited degree, that different levels of government might best regulate different aspects of a regulatory field. This Part explores these methodologies, providing examples of recent preemption decisions and exploring the extent to which they take a binary approach to a regulatory area—thus combining land use, technological and operational, financial, informational, and enforcement-based portions of the area—or disaggregate regulatory issues.

Many recent preemption decisions involve energy law, and this Part examines preemption in three energy law areas: oil and gas production, renewable energy, and rail transport of crude oil and ethanol. The case studies explored here address express, conflict, and field preemption, as introduced in Part I. They also address both federal-state and intrastate preemption. Some of the cases involve all-or-nothing approaches, but they also show that certain legislatures and courts (and, in one case, a state executive branch) have recognized the different portions of regulation that make up a regulatory area, such as land use regulation, taxation, and public disclosure and notice requirements. This suggests that the more consistent, measured approach to disaggregation proposed in Part II could have a more central role in preemption cases and could benefit from a clearer, more detailed framework.

A. All-or-Nothing Approaches

The clearest example of a court's combining numerous strands of regulation in its preemption decision, and allocating all strands of a regulatory area to one level of government, comes from a federal case interpreting Louisiana oil

130. *See, e.g.*, Dinh, *supra* note 49, at 2085 ("[T]he Supreme Court's numerous preemption cases follow no predictable jurisprudential or analytical pattern.").

and gas law. Louisiana expressly preempts local regulation of oil and gas development, providing: "No . . . agency or political subdivision of the state [aside from the state's oil and gas agency] shall have the authority, and they are hereby expressly forbidden, to prohibit or in any way interfere with the drilling of a well or test well in search of minerals by the holder of such a permit."[131] But certain municipalities in Louisiana have strong home rule authority. Thus, when Louisiana transferred to the City of Shreveport control over the City's primary drinking water supply—Cross Lake—the City amended its home rule charter to protect the water quality of the lake. The charter gave Shreveport the power "[t]o make all necessary regulations to protect the water supply of the City from pollution and other damage, and to exercise full and unlimited police power over the bed and waters of Cross Lake" and within 5,000 feet of the lake.[132] Acting under this home rule authority, Shreveport subsequently prohibited oil and gas drilling within 1,000 feet of Cross Lake.[133]

The Fifth Circuit held that despite this home rule authority, Louisiana's law preempted all local regulation of oil and gas operations, including land use regulation. The court largely ignored the home rule, land use-based aspects of oil and gas regulation, finding (perhaps incorrectly) that the City's home rule authority over water quality extended only to the bed of the lake, not beyond.[134] In the 1,000 feet around the lake, the court found, the only authority Shreveport held was the limited authority to protect the public health, safety, and welfare that Louisiana had delegated to it—not home rule authority.[135] Because Louisiana intended to preempt all local control over oil and gas operations, the court found, this weak, delegated police power authority could not support the local prohibition of drilling near Cross Lake.[136] In considering various preemption values, the court emphasized the importance that Louisiana had placed on ensuring uniform oil and gas regulation and promoting oil and gas production.[137]

A West Virginia county similarly took an all-or-nothing approach to preemption in the oil and gas production context. After Morgantown, West Virginia banned hydraulic fracturing within city limits, two companies challenged the ban as preempted by existing West Virginia statutes and regulations.[138] The Circuit Court of Monongalia County agreed, applying field preemption.[139] The

131. LA. STAT. ANN. § 30:28(F) (2016).

132. Energy Mgmt. Corp. v. City of Shreveport, 397 F.3d 297, 300 (5th Cir. 2005).

133. *Id.*

134. *Id.* at 305.

135. *Id.*

136. *Id.* at 304–05.

137. *Id.* at 304.

138. Ne. Nat. Energy, L.L.C. v. The City of Morgantown, No. 11-C-411, 2011 WL 3584376, at 1 (W. Va. Cir. Ct. Aug. 12, 2011).

139. *Id.* at 9.

court emphasized that the state's Department of Environmental Protection has a purpose of "consolidat[ing] environmental regulatory programs in a single state agency, while also providing a comprehensive program for the conservation, protection, exploration, development, enjoyment and use of the natural resources of the state of West Virginia."[140] The court also noted that the West Virginia Department of Environmental Protection must "perform all duties as related to the exploration, development, production, storage and recovery of . . . oil and gas" and that the legislation therefore "sets forth a comprehensive regulatory scheme" prohibiting local regulation of oil and gas production.[141] Morgantown tried to parse the analysis, pointing out its home rule authority to prohibit nuisances, particularly through land use regulation.[142] The court acknowledged that "the City has an interest in the control of its land within its municipal borders" but summarily concluded that the state's interest in oil and gas and the "all inclusive" nature of state regulatory authority trumped local government land use authority, thus refusing to consider in any detail how land use control might potentially mesh with state control.[143]

Similarly, in the Munroe Falls case, where the Ohio Supreme Court held local oil and gas regulations invalid on a conflict preemption theory, the court failed to disaggregate.[144] The City of Munroe Falls proposed an approach that would fall wholly within this Article's disaggregation framework, arguing that its ordinances addressed "traditional concerns of zoning," unlike Ohio's oil and gas regulation, which addressed "technical safety" and property issues.[145] The Ohio Supreme Court rejected this disaggregation approach, calling it "fanciful,"[146] and insisted on addressing all regulation of oil and gas production regulation at issue in the case in one category, concluding that the local and state ordinances "unambiguously regulate the same subject matter—oil and gas drilling."[147] Thus, the court focused on the entire regulatory field rather than acknowledging that Ohio and Munroe Falls were regulating in different regulatory areas (land use, operational, and technical) and not necessarily in conflicting ways.

All of these cases needlessly wall off areas of regulation that might be better addressed by local governments, thus failing to enable local governments to apply their expertise and unique local knowledge of land use matters in the oil and gas production context. Although land use bans clearly create conflicts, the Fifth Circuit and the Ohio and West Virginia courts could have at least

140. *Id.* at 6.
141. *Id.*
142. *Id.* at 8.
143. *Id.* at 8–9.
144. Ohio *ex rel.* Morrison v. Beck Energy Corp., 37 N.E.3d 128, 138 (Ohio 2015).
145. *Id.* at 136.
146. *Id.*
147. *Id.*

recognized that local governments retain land use authority to regulate the zones in which oil and gas operations are allowed, without unduly interfering with states' technical and operational regulations.

B. Limited Disaggregation

Despite a growing number of all-or-nothing approaches, legislatures and courts have conducted some disaggregation in the field of energy law. These decisionmakers have in some cases recognized local or state governments' comparative advantages in the five categories of regulation introduced in Part II: land use-based, operational and technical, financial, information disclosure-based, and regulatory enforcement.

1. Land Use Regulations

One of the most common forms of disaggregation already followed by courts and legislatures is recognition that the land use regulatory component of a particular regulatory area is separate from other components. As introduced above, in 2015, Texas and Oklahoma enacted nearly identical laws preempting local control over an entire industry—oil and gas production—with limited exceptions. Texas's new law prohibits all municipalities or other political subdivisions of the state from enacting or enforcing "an ordinance or other measure" or an amendment to existing ordinances, that "bans, limits, or otherwise regulates an oil and gas operation within the boundaries or extraterritorial jurisdiction of the municipality or political subdivision."[148] However, this legislation disaggregates the field of oil and gas regulation in a limited way. It exempts from preemption local regulations that: 1) address very limited police power (land use and public health and safety) issues such as fire and emergency response and the setback of wells from certain buildings and resources; 2) are "commercially reasonable"; 3) do not "effectively prohibit" a reasonably prudent oil and gas regulation; and 4) are not otherwise preempted by state or federal law.[149]

Thus, the Texas legislature, unlike the West Virginia and Ohio courts and the Fifth Circuit, recognizes to a limited extent local governments' land use and more general police powers authority. This limited disaggregation seems to recognize that local governments have an important role to play in particular aspects of the regulation of oil and gas production, including determining how far a well must be from nearby structures, which is a classic area of local authority. But the legislature could have, and likely should have, gone much further in disaggregating, noting that local governments might still have important roles

148. Tex. Nat. Res. Code Ann. § 81.0523 (2015), https://perma.cc/P5MU-RA4K.

149. *Id.* Texas also allows local governments that have regulated oil and gas production for at least five years without effectively prohibiting production to continue regulating in this area. *Id.*

to play in other aspects of land use law beyond setbacks, such as zoning, financial regulation like bonds and insurance requirements (which many Texas local governments previously required),[150] and enforcement of certain regulations.

Oklahoma's statute is nearly identical, only allowing local regulation of limited issues such as fire and emergency response, notice of proposed operations, and setbacks if these regulations do not "effectively prohibit" oil and gas operations.[151] This recognizes two distinct portions of the broader regulatory area that addresses oil and gas production, including land use and informational regulation, as discussed in the following section.

In the renewable energy context, although preempting certain aspects of local government control, Wisconsin allows local governments to adopt local ordinances that contain restrictions that are not more stringent than state-defining restrictions,[152] such as setbacks and noise limits.[153] Local governments also may deny a proposal for wind energy "if the proposed site of the wind energy system is in an area primarily designated for future residential or commercial development."[154]

Some courts have similarly disaggregated the land use component of regulation from other regulatory components in the oil and gas and renewable energy contexts. When oil and gas companies in New York challenged various local governments' bans on hydraulic fracturing for oil and gas, three New York courts extensively explored local governments' land use authority under home rule.[155] These courts found that New York's express preemption of local laws "relating to the regulation of the oil, gas and solution mining industries"[156] did not preempt local land use authority over oil and gas. The New York Court of Appeals—similarly to the two courts below that had addressed the same issue—concluded that this express preemptive language applied only to "local laws that purport to regulate the actual *operations* of oil and gas activities, not zoning ordinances that restrict or prohibit certain land uses within town boundaries."[157] Thus, the court disaggregated operational and land use regulations and found that different levels of government retained authority over these two regulatory areas. The court concluded that local governments could even use their

150. *See, e.g.*, ARLINGTON, TEX., ORDINANCES GOVERNING OIL AND GAS, art. VI, § 6.01(B)(1)(c) (2011), https://perma.cc/M4GG-FX6P; Fort Worth, Tex., Ordinance No. 18449-02-2009, at 25–32 (Feb. 3, 2009), https://perma.cc/4HKN-X7YK.

151. OKLA. STAT. tit. 52, § 52-137.1 (2015).

152. WIS. STAT. § 66.0401(f)(1) (2016).

153. *Id.* § 196.378(4g)(b).

154. *Id.* § 66.0401(f)(2).

155. Wallach v. Town of Dryden, 16 N.E.3d 1188, 1203 (N.Y. Ct. App. 2014); Anschutz Expl. Corp. v. Town of Dryden, 940 N.Y.S.2d 458, 470–71 (N.Y. Sup. Ct. 2012); Cooperstown Holstein Corp. v. Town of Middlefield, 943 N.Y.S.2d 722, 730 (N.Y. Sup. Ct. 2012).

156. N.Y. ENVTL. CONSERV. L. § 23-0303 (McKinney 2014).

157. *Wallach*, 16 N.E.3d at 1203 (emphasis added).

land use regulatory powers to ban oil and gas development entirely within city limits[158]—thus potentially creating conflict preemption problems.

The Kansas Supreme Court also emphasized local governments' zoning powers as separate from other types of regulation when it found that a local government's use of zoning to ban commercial wind turbines was not preempted by state law.[159] The court found no express preemption of local control over wind energy in state law, and although the state regulates all public utilities, including wind farms, it noted that Kansas courts do not generally recognize implied field preemption.[160]

In contrast, the Colorado Supreme Court recently held that one local ban on hydraulic fracturing[161] and waste disposal and another local five-year moratorium on fracturing and waste storage were preempted.[162] The court did more disaggregation than many others have, at least in the sense of recognizing that local governments have land use authority over oil and gas development. The court noted "the local government's traditional authority to exercise its zoning authority over land where oil and gas development occurs"[163] and that the "General Assembly has recognized the propriety of local land use ordinances that relate to oil and gas development."[164] The court therefore recognized that different levels of government might exercise control over different aspects of hydraulic fracturing (e.g., land use-related aspects versus other aspects) but was not willing to extend this disaggregation to allow for local bans or long-term moratoria on fracturing in the name of preserving local land use authority. Indeed, the court believed that local governments exercising their land use authority over fracturing to the extent that they prohibited fracturing altogether would leave the state's allowance of fracturing and regulation of fracturing "superfluous"[165]—the state would have nothing to regulate.

In finding no way to reconcile local governments' land use authority with the state's regulatory authority over oil and gas development, the court refused to disaggregate other aspects of regulation. It concluded that Colorado has an "exhaustive" and "pervasive" set of regulations in the oil and gas area and that the state regulates the fracturing process by requiring disclosure (which is simply an informational regulation—not regulation of the full process) and governing the storage and disposal of oil and gas exploration and production wastes.[166] The court also suggested that regulation of chemical disclosure in-

158. *Id.*
159. Zimmerman v. Bd. of Cty. Comm'rs, 218 P.2d 400, 430 (Kan. 2009).
160. *Id.* at 429–30.
161. City of Longmont v. Colo. Oil & Gas Ass'n, 369 P.3d 573 (Colo. 2016).
162. City of Fort Collins v. Colo. Oil & Gas Ass'n, 369 P.3d 586 (Colo. 2016).
163. *Id.* at 591.
164. *Longmont*, 369 P.3d at 583.
165. *Id.* at 585.
166. *Id.* at 584.

volved regulation of the "chemicals used,"[167] thus failing to acknowledge the difference between substantive regulation of technologies and practices at the well site and informational regulation. The court proceeded to find that in light of the perceived comprehensive regulation of oil and gas development at the state level and the state's interest in promoting oil and gas development and avoiding waste of oil and gas resources, local bans and moratoria impede the state's interests and are preempted as a result of conflict preemption.[168] The court did, however, appear to leave room for local regulation that was not the equivalent of a ban or a long-term moratorium, expressing "no view as to the propriety of a moratorium of materially shorter duration."[169]

These disaggregation approaches show how disaggregation does not always lead to different levels of government having control over different aspects of regulation. In some cases, governmental authority in one area of a regulatory field, such as land use, might preclude governmental authority in another area, such as regulation of the technical and operational aspects of oil and gas wells or wind turbines. If a local government uses its land use authority to ban certain energy technologies and operations entirely, then the state's control over them becomes meaningless, and conflict preemption principles might be implicated. In New York and Kansas, the courts were content with this result, allowing local governments to use their land use authority to trump state law.[170] Indeed, local bans might not always cause a conflict preemption problem. As a lower court in New York noted when addressing bans on hydraulic fracturing, where a state oil and gas law does not purport to require that oil and gas development occur in every political subdivision of the state, a local ban might not conflict with a state oil and gas law that allows oil and gas development and regulates its technologies and operations.[171]

Although New York's and Kansas's approaches may be controversial from a conflict preemption perspective, they are an acceptable procedural approach under the disaggregation framework. Disaggregation simply requires consideration of different components of a regulatory area while recognizing that a court might choose to give one government authority over all components of a regulatory area, or it might even bestow on that government the ability to trump other governments' authority in other components of the regulatory area. And

167. *Id.*

168. *Id.* at 585; *Fort Collins*, 369 P.3d at 593–594.

169. *Fort Collins*, 369 P.3d at 594.

170. *See supra* notes 9, 72 and accompanying text.

171. *See* Matter of Norse Energy Corp. USA v. Town of Dryden, 964 N.Y.S.2d 714, 723 (N.Y. App. Div. 2013) (concluding that the state oil and gas statute does not express "an intention to require oil and gas drilling operations to occur in each and every location where such resource is present" and thus rejecting the argument that "municipal zoning ordinances that effect a ban on drilling conflict with the policies" of the state), *aff'd*, 16 N.E.2d 1188 (N.Y. 2014).

for those who disagree with these substantive results, the disaggregation framework could have potentially produced different results. For example, the New York courts could have determined that local governments retain land use authority over oil and gas development but cannot ban oil and gas development from all zones within their jurisdiction, since local bans (as opposed to manageable limitations on the location of energy development within their jurisdictions) would interfere with other aspects of regulation controlled by the states.

2. Technological and Operational Regulations

This Article introduced technological and operational regulations together in Part II, explaining that technology-based requirements mandate the use of certain pollution control or safety equipment and operational regulations prescribe certain activity, such as regularly testing equipment. Because these regulations are often mutually dependent (e.g., requiring use and periodic testing of technology, or training requirements), this Article discusses them within one regulatory "strand."

One of the clearest examples of disaggregating technological and operational requirements comes from the rail safety context, in which the federal government exercises primary authority over the transport of crude oil and ethanol (and many other substances) by rail. The Federal Rail Safety Act forces courts to disaggregate preemption decisions by requiring courts to consider whether the federal government has "covered" a particular area of rail safety. Further, the Hazardous Materials Safety Act makes certain portions of rail safety off-limits to local governments, such as imposing specifications on the containers that must be used for rail transport and requiring particular types of labels.[172] This at least requires the court to consider various regulatory areas within rail safety—particularly operational and technical areas—and to determine which, if any, remain open to local governments.

The courts' approach to this legislatively dictated disaggregation demonstrates that it is workable, albeit somewhat complex. If the court were to parse federal regulation in too much detail, asking whether a state regulation exactly matched a federal regulation in a particular area of rail safety to determine whether the federal regulation had already covered the area, no state law would be preempted. But if the court were to define each regulatory portion too broadly, finding that the federal government operating in any one area of rail safety had preempted all areas, this would eviscerate the disaggregated approach.

Take the example of operational regulations that require training and certification of engineers who operate locomotives and specify when licensed engineers must operate the locomotive. Federal regulations provide that for a train

172. *See supra* note 56 and accompanying text.

that moves 100 or fewer feet (e.g., moving a train within a repair or service area), a licensed engineer need not be present.[173] If the court generalized this regulation too much, it might find that because the federal government had regulated one aspect of rail safety—determining when a licensed engineer must be present or not—it had covered the entire area of operational safety or even all rail safety, including the speed at which engineers may operate trains, the braking technology that must be installed in trains, and so on. This would involve a broad lumping together of the many different types of rail safety regulation, and it would preempt most state regulation.[174]

The courts have taken a middle ground. They do not require a state regulation to exactly match a federal regulation to find that federal regulation has covered the area, but they do not overly generalize to find that federal regulation in one area of railroad safety covers the entire field. Rather, they ask whether "federal regulations substantially subsume the subject matter of the relevant state law,"[175] meaning whether the federal regulations' scope, considering the overall structure and context of the regulations, includes the subject matter of the state law.[176] A federal regulation need not directly address the subject matter of the state law to cover that subject matter area. As the Seventh Circuit noted:

> Generally, determining the safety concerns that a state or federal requirement is aimed at will necessarily involve some level of generalization that requires backing away somewhat from the specific provisions at issue. Otherwise a state law could be preempted only if there were an identical federal regulation . . . . But with too much generalizing—"public safety" or "rail safety"—our analysis would be meaningless because all FRA regulations cover those concerns.[177]

Thus, a court applying the FRSA looks to whether a state law is "aimed at the same safety concerns addressed by FRA regulations."[178] If the state law at issue addressed a particular "warning device" at a railroad crossing, courts would define the subject matter area as "highway safety" at railroad crossings rather

173. Qualification and Certification of Locomotive Engineers, 49 C.F.R. § 240.7 (2016); *see also* Burlington N. & Santa Fe Ry. Co. v. Doyle, 186 F.3d 790, 796–97 (1999) (describing the regulation).

174. Of course, because states may also regulate in areas that federal regulation has already covered if they can show unique local conditions and that they do not interfere with interstate commerce, they would still have a limited opportunity to regulate.

175. CSX Transp., Inc. v. Easterwood, 507 U.S. 658, 664 (1993).

176. *Id.*

177. *Burlington N. & Santa Fe Ry. Co.*, 186 F.3d at 796 (citations omitted).

178. *Id.* (quoting Burlington N. R.R. Co. v. Montana, 880 F.2d 1104, 1106 (9th Cir. 1989)).

than asking whether the federal government had a particular regulation addressing that warning device.[179]

Despite this compromise approach, which would seem to leave some elements of rail safety regulation to the states, the courts have generally found state regulations to be preempted. For example, courts have found that the federal statute preempted a Wisconsin statute requiring two engineers to be at the wheel any time a locomotive was moving;[180] an Oregon regulation that prohibited trains from blocking highway intersections for more than ten minutes;[181] a Texas regulation requiring any freight trains longer than 2,000 feet operating outside of a railroad to have a caboose manned by at least one employee;[182] and a Washington, D.C. ordinance that required trains carrying hazardous materials to be routed at least two miles away from the Capitol.[183] Thus, despite the federal statute's seemingly express call for disaggregation where appropriate—allowing limited state or local control where the regulation addresses specific local concerns and meets other factors[184]—the courts appear hesitant to validate or implement this disaggregation.

3. Financial Requirements

Several legislatures have further recognized that the regulation of the financial aspects of a particular regulatory area—taxation and fees, for example—is separate from other portions of the regulatory area. As noted above, Pennsylvania gives local governments control over certain financial aspects of oil and gas development, apparently recognizing that its preemption of all other aspects of this development (later overturned by the state's Supreme Court[185]) causes certain impacts at the local level that municipal governments must have some authority to address.

Pennsylvania's Act 13, enacted in 2012, required local governments to "authorize oil and gas operations, other than activities at impoundment areas, compressor stations and processing plants, as a permitted use in all zoning dis-

179. *Id.* (quoting Shots v. CSX Transp., Inc., 38 F.3d 304, 307 (7th Cir. 1994)).

180. *Id.* at 797 (finding that "Wisconsin's requirement that an engineer be at the controls of the locomotive any time it moves" was preempted by federal law).

181. Burlington N. & Santa Fe Ry. Co., v. Dep't of Transp., 206 P.3d 261, 264 (Or. Ct. App. 2009).

182. Missouri Pac. R.R. Co. v. R.R. Comm'n, 671 F. Supp. 466, 472, 478 (D. Tex. 1987).

183. CSX Transp. v. Williams, 406 F.3d 667 (D.C. Cir. 2005).

184. 49 U.S.C. § 20106 (2012) (allowing state regulations that are additional to or more stringent than federal law when they are "necessary to eliminate or reduce an essentially local safety or security hazard"; are not "incompatible" with federal laws, regulations, or orders; and do "not unreasonably burden interstate commerce").

185. Wallach v. Town of Dryden, 16 N.E.3d 1188, 1203 (N.Y. 2014); Robinson Twp. v. Commonwealth, 83 A.3d 901 (Pa. 2013).

tricts"[186]—a requirement later deemed unconstitutional. It also prohibited other local building, zoning, and nuisance avoidance laws that were more stringent than state regulation of oil and gas rigs and other equipment, including "limitations on the heights of structures, screening and fencing, lighting or noise."[187] But significantly, the Act allowed (and still allows) Pennsylvania municipalities and counties to impose an "unconventional gas well fee" on every well drilled within their jurisdiction.[188] The state dictated the amount of the fee and where the funds would go,[189] but the statute funnels many of the funds directly to the localized impacts caused by oil and gas development. For example, gas well fee money goes to, *inter alia*, environmental programs and affordable housing[190]—an important focus when thousands of energy company employees move into a town and cause housing costs to rise.[191]

Numerous state legislatures also recognize bonding—one type of financial regulation—as a distinct type of regulation to be carried out by one or several levels of government. For example, most states require oil and gas companies to post money or other financial assurances with the state prior to drilling a well.[192] This money is later used by the state if the company fails to properly fill in the well or restore the site when it is abandoned.[193] Most of these bonding regulations are issued by states, but in places like Texas, local governments also issued their own bonding requirements before being preempted.[194]

In the renewable energy context, several legislatures also have recognized financial regulation as a distinct strand of a regulatory area. Some states directly require bonding or other financial assurance to ensure that when wind energy facilities are abandoned the infrastructure will be safely removed, or they allow local governments to require developers to obtain these bonds.[195] Wisconsin, although preempting local control over many aspects of wind energy development, recognizes a different aspect of financial regulation. It allows local gov-

186. 58 PA. CONS. STAT. § 3304, *invalidated by Robinson Township*, 83 A.3d 901.

187. *Id.*

188. *Id.* § 2302(a).

189. *Id.* § 2302(b).

190. *Id.* § 2314(g).

191. *See, e.g.*, Michael Farren, Drilling Booms and Housing Shortages: Is the Market Nimble Enough to Replace Government Intervention? 1–2 (Nat'l Agric. & Rural Dev. Policy Ctr., Policy Brief 22, 2014), https://perma.cc/8584-KLS4.

192. *See* David A. Dana & Hannah J. Wiseman, *A Market Approach to Regulating the Energy Revolution: Assurance Bonds, Insurance, and the Certain and Uncertain Risks of Hydraulic Fracturing*, 99 IOWA L. REV. 1523, 1531–32 (2014) (comparing bonding requirements).

193. *Id.* at 1530.

194. *Id.* at 1531 n.21.

195. *See* Brent Stahl et al., *Wind Energy Laws and Incentives: A Survey of Selected State Rules*, 49 WASHBURN L.J. 99, 107, 135 (2009) (describing how South Dakota allows its state agency to require bonds and how counties in Illinois require bonds).

ernments to require owners of wind energy systems to contract with landowners within a half mile of the system and offer these landowners compensation.[196]

Identifying financial regulation as distinct from other components of a regulatory area may be one of the most important forms of disaggregation. Particularly when a government preempts most portions of a regulatory field, leaving another government with very little control over that field, these largely powerless governments need means of addressing the impacts that fall within their jurisdiction. Money in the form of bonds or direct compensation to landowners for the impacts caused by development, or fees that fund governmental clean-up efforts, allow governments to address the negative externalities of development even when they cannot regulate to prevent these externalities.

4. Information Disclosure Requirements

As introduced in the Oklahoma and Texas oil and gas examples, in which the state legislatures preempted most local control over oil and gas development but allowed local regulation of setbacks (a land use requirement), another strand of a regulatory area that is often recognized as distinct is informational regulation.[197] In the energy law context, this type of regulation requires regulated entities to provide notice to nearby landowners or the general public that an energy activity such as drilling a well,[198] carrying crude oil through a town,[199] or building a wind farm has been proposed. Informational regulations also sometimes require the study and disclosure of certain impacts of that activity.[200] Providing notice to residents of proposed energy infrastructure and operations alerts those residents to the possibility of participating in state hearings addressing the infrastructure. It might also allow residents to use non-regulatory approaches such as common law claims to address concerns about proposed wells.

Information-based regulation of energy law typically involves state or federal government entities requiring studies or disclosure of impacts, which makes sense.[201] Centralizing information collection about impacts can ensure that this collection is more uniform. But local governments might in some cases be the best level of government to require informational regulations such as notice of

196. Wis. Admin. Code PSC § 128.33(3) (2016).

197. *See, e.g.*, Okla. Stat. tit. 52, § 52-137.1 (2015) (requiring notice of proposed drilling); 765 Ill. Comp. Stat. 530/4 (2016) (same).

198. *See supra* note 197.

199. *See, e.g.*, Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, 80 Fed. Reg. 26,644, 26,651 (May 8, 2015) (to be codified at 49 C.F.R. pts. 171, 172, 173, 174 and 179).

200. *See, e.g.*, Wis. Admin. Code PSC § 128.33(2) (2016) (noting impact studies required by the state).

201. *See id.*; *see also* Hall, *supra* note 18 (surveying hydraulic fracturing chemical disclosure requirements).

drilling a well or building a wind farm. These governments might be best equipped to monitor whether an energy company has in fact published notice of a proposed operation in a local newspaper or provided individually mailed notices.[202] Further, local governments, which have distinct knowledge of potential local impacts, could (and sometimes do) work collaboratively with federal and state governments on impact studies.[203]

Just as Oklahoma's legislature gave local governments authority over a limited informational aspect of oil and gas regulation (notice of proposed drilling),[204] in the renewable energy context states like Wisconsin have recognized the distinction between informational regulations and other types of regulation. Wisconsin requires wind energy developers to complete certain studies on the likely impacts of wind energy development, and although the state preempts most local control in this area, it allows local governments to require wind energy developers to coordinate with the state on completing these studies.[205] Wisconsin also allows local governments to "require information" regarding whether a wind energy developer has implemented recommendations from the state and federal government for mitigating impacts.[206] This ensures that local governments will receive more comprehensive information on potential local impacts and on steps that wind energy developers might take to address these impacts. Although local governments are often preempted from requiring mitigation of these impacts,[207] they, like individual residents, could pursue certain common law claims, or informally negotiate with wind energy developers to address certain impacts. In the oil and gas context, these types of informal negotiations are common. For example, local governments sometimes persuade oil and gas companies to donate equipment, like jaws of life to local fire and emergency departments, citing to the increased traffic to and from well sites and the greater number of accidents that may ensue.[208]

---

202. *See, e.g.*, MD. CODE ANN., PUB. UTIL. §§ 7–207(c), 7–208(d) (requiring notice of proposed wind energy facilities); Sprenger v. Pub. Serv. Comm'n of Md., 926 A.2d 238, 253–55 (Md. 2007) (finding local newspaper notice to be adequate).

203. *See, e.g.*, *Gateway Pacific Terminal at Cherry Point Proposal*, WASH. STATE DEP'T OF ECOLOGY, https://perma.cc/Y9N6-2KEQ ("The U.S. Army Corps of Engineers, the state Department of Ecology and Whatcom County are conducting coordinated environmental reviews [of a proposed coal export terminal].").

204. *See* OKLA. STAT. tit. 52, § 52-137.1 (2015).

205. WIS. ADMIN. CODE PSC § 128.13 (2016).

206. *Id.*

207. *See, e.g.*, *supra* note 58 and accompanying text (describing local governments' limited abilities to regulate oil and gas development in Texas and Oklahoma).

208. *Cf.* DANIEL RAIMI & RICHARD G. NEWELL, SHALE PUBLIC FINANCE: LOCAL GOVERNMENT REVENUES AND COSTS ASSOCIATED WITH OIL AND GAS DEVELOPMENT 1 (2014), https://perma.cc/9M8H-K8JA (noting in-kind donations from oil and gas companies to local governments).

The federal government, too, has recognized informational regulation like notice and disclosure as a separate regulatory category in the rail safety context, and it has delegated certain components of informational regulation to subfederal governments. The Department of Transportation, which implements the Federal Rail Safety Act introduced above, recently issued a new final rule designed to address the safety of transporting crude oil and ethanol by train.[209] Many of these new regulations leave little room for state and local authority, particularly because they now "cover" an even larger area of train safety and thus preempt state and local control, with certain exceptions. But the rule requires rail carriers to work more closely with state and regional "fusion centers," which are state-level or regional agencies that "coordinate with state, local, and tribal officials on [rail] security issues."[210] Specifically, these carriers must assess the risks of using various train routes, employing twenty-seven different risk assessment factors, and they must establish a "point of contact" with state and regional fusion centers as well as "state, local, and tribal officials in jurisdictions that may be affected by a rail carrier's routing decisions and who directly contact the railroad to discuss routing decisions."[211]

Subfederal governments will therefore have access to the risk assessments of routes and information on possible route alternatives, and because of the required point of contact, the governments can use this information to communicate with rail carriers about their views on proposed routes. Local governments can also share this routing information with local emergency responders and other officials who will have to address the localized impacts of trains, such as rare but sometimes substantial spills and explosions.[212] The federal government singled out the local importance of this information through an anecdote provided by a commenter:

> The Prairie Island Indian Community provided a specific example of a community that could be directly affected by the implementation of the routing requirements. They noted that their community is home to "hundreds of tribal member residents, potentially thousands of visitors and employees at the Treasure Island Resort and Casino, a dry cask storage facility currently hosting 988 metric tons of spent nuclear fuel, an operating nuclear power plant with two reactors and approximately 635 metric tons of spent nuclear fuel in the fuel pool." They noted that "if ever there was a case for rail routing risk assessment, this is it."[213]

209. Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, 80 Fed. Reg. 26,644 (May 8, 2015).

210. *Id.* at 26,652.

211. *Id.* at 26,707.

212. *Id.*

213. *Id.* at 26,707–08.

However, since the publication of the rule, rail carriers have restricted subfederal governments' access to information about routes, arguing that only emergency responders should be able to obtain this information.[214] It is therefore unclear how much informational authority states, local governments, and tribes will retain under the rule.

Some commenters wanted more disaggregation of the rail safety area and more recognition of local control over land use authority in the area, suggesting that local governments should be able to "opt out" of routing decisions and refuse to allow trains to travel through their jurisdiction.[215] The U.S. Department of Transportation recognized this request but rejected it, arguing that "local government crude by rail prohibitions could have detrimental impacts on the fluidity of the entire national rail network, including passenger service."[216] Thus, although some commenters did not accomplish as much disaggregation of the rule as they hoped for, the Department of Transportation explicitly recognized but rejected a particular type of disaggregation and explained its reasons for doing so; the agency enhanced transparency by following this disaggregated approach.

5. Regulatory Enforcement

While disaggregation of regulations like land use or financial rules is somewhat common but not consistent across legislatures and courts, separating out the enforcement functions of regulation is perhaps the most commonly recognized form of disaggregation. Federal, state, and local governments alike recognize that while one government might have comparative advantages in considering regulatory options and selecting specific standards and rules, another government might be better at enforcing these regulations.[217] Thus, much

214. *See* Curtis Tate, *Railroads Use New Oil Train Rule to Fight Transparency*, McClatchy DC (June 25, 2015), https://perma.cc/K3RM-R3TQ ("[I]n recent court filings in Maryland, two major oil haulers have cited the department's new rule to justify their argument that no one except emergency responders should know what routes the trains use or how many travel through each state during a given week.").

215. Hazardous Materials: Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains, 80 Fed. Reg. 26,644, 26,208 (May 8, 2015) (noting commenters who "supported allowing an 'opt out' for communities to choose to not allow HHFTs [high hazard flammable trains] to be transported through their areas").

216. *Id.*

217. *See, e.g.*, Buzbee, *supra* note 28, at 1598 (noting the "implementation and enforcement process in areas like environmental law," in which states implement and enforce federal standards); Robert L. Glicksman, *From Cooperative Federalism to Inoperative Federalism: The Perverse Mutation of Environmental Law and Policy*, 41 Wake Forest L. Rev. 719, 725–28 (2006) (describing the nature of cooperative federalism—which allows subfederal governments to implement federal standards—and its historic, common use in environmental law, but arguing that the system has changed to constrain both state and federal approaches to effective environmental regulation).

of the field of environmental law relies upon a cooperative federalism approach in which the federal government writes rules and states implement them.[218]

Disaggregation of the enforcement function also occurs in the energy law context. For example, for rail safety, the Hazardous Materials Transportation Act preempts many state and local rules but allows state and local governments to issue rules that are "substantively the same as" federal rules.[219] This gives state and local governments a means of enforcing what would otherwise be rules that were outside of their jurisdiction. And the federal government avoids too much duplication or conflict in this area by providing that if a subfederal entity issues a penalty that the federal government deems appropriate, a second penalty may not issue.[220]

The disaggregation of the enforcement function could be used to much greater advantage in the energy context. For example, a legislature preempting most local control in the area of oil and gas development, or a court triggering this preemption, could find that local governments retained concurrent authority with the state to identify potential problems at well sites and at least notify the state if problems were found. This would give local governments, who can respond more quickly to incidents at well sites and may be more familiar with the location of the well and conditions at the well site,[221] the ability to inspect well sites for potential violations of state law and provide the "boots on the ground" that state administrative agencies often lack. A more ambitious state could even transfer some of the expertise of its state regulators—who are highly familiar with well technologies and operations—to a team of local inspectors and give these inspectors concurrent authority to inspect sites and issue penalties for violations of state law.

* * *

The many recent intrastate preemption cases in the energy production context show that many courts and some legislatures have at least recognized limited pieces of the regulation of various areas of energy law, including land use, technical and operational regulation, financial, informational, and enforcement-based regulations. But there is opportunity for more extensive and consistent disaggregation, which could better capture the comparative advantages of different governments regulating various aspects of a regulatory area and better address a range of values associated with federal, state, and local control. Fully

218. *See* David E. Adelman & Kirsten H. Engel, *Adaptive Federalism: The Case Against Reallocating Environmental Regulatory Authority*, 92 MINN. L. REV. 1796, 1802 (2008) (noting "the system of cooperative federalism that dominates environmental law in the United States").

219. 49 U.S.C. § 5125(b)(2) (2012).

220. *Id.* § 5125(b)(3).

221. *Cf.* Richard Briffault, *Home Rule and Local Political Innovation*, 22 J.L. & POL. 1, 22 (2006) (noting the classic argument that local governments are familiar with local conditions).

incorporating the disaggregated approach to preemption will not be simple or easy, but the obstacles are not insurmountable, as discussed in the following Part.

IV. Addressing Concerns in Implementing the Disaggregated Approach

Any proposal to add more nuance to judicial and legislative decisions naturally raises questions about the mechanics of the proposal. In this case, a primary concern is that defining five regulatory categories and requiring decisionmakers to consider the benefits and costs of local, state, or federal control in each of these categories will increase the time that must be devoted to each decision. Further, an extensive literature on comparative institutional advantage in making preemption decisions suggests that perhaps agencies or another entity should do the disaggregation work proposed here. Additional concerns include the worry that regardless of who does the preempting, the resulting regulatory scheme will lead to chaos—several levels of government controlling different parts of a regulatory area might promulgate and enforce overlapping and conflicting regulations, generating high costs for the regulated entity. Further, disaggregating a regulatory area, particularly where disaggregation leads to different levels of government having control within the area, could create regulatory gaps, in which governments fail to realize that parts of the regulatory area remain inadequately regulated, or are unregulated. Disaggregation could also increase the likelihood that there would be unrecognized or inadequately addressed "hotspots" of regulated activity, particularly in low-income areas, leading to environmental justice concerns. This Part addresses these potential concerns.

A. Resource Constraints

Asking overworked and understaffed legislatures and courts to take on additional work in preemption cases—as the disaggregation approach demands—is likely to run up against practical barriers. But existing, sometimes limited disaggregation approaches show that courts and legislatures can and do take on this task, albeit often in a more cursory way.

The time and energy that must be devoted to a fully disaggregated preemption approach—one that considers the five categories of regulation identified here, or similar categories—is highlighted by a recent administrative effort in Colorado. After a great deal of sparring over which level of government should control various aspects of oil and gas development, including the preemption lawsuits noted above,[222] Colorado's governor convened a task force to

222. City of Longmont v. Colo. Oil & Gas Ass'n, 369 P.3d 573 (Colo. 2016); City of Fort Collins v. Colo. Oil & Gas Ass'n, 369 P.3d 586 (Colo. 2016).

address this issue.[223] This task force was comprised of state regulators, local government officials, industry representatives, landowners, and public interest group representatives,[224] and its goal was to reach consensus on various aspects of oil and gas development that different governments should control, independently or working in concert. This was, in short, an extensive effort to disaggregate preemption: the group identified thirty-four potential regulations and associated actions that would be led by state or local governments.[225] The task force met seven times, and all meetings were open to the public.[226]

In undertaking this ambitious effort, the task force was able to agree on only nine items, most of which were the least contentious and did not specifically allocate authority to one level of government or another.[227] For example, the task force recommended facilitation between local governments and Colorado's oil and gas agency on planning for oil and gas development in urban areas. Under this approach local governments would be required to work with oil and gas operators—companies that develop wells—to try to agree on an acceptable location for any large oil and gas sites that contain multiple wells. If the local government and operator were unable to reach an agreement on the well location, the state oil and gas agency would review the proposed location and approve or reject it after considering specific criteria.[228] Thus, the task force recommended that local governments retain land use-based control over oil and gas operations, with a potential state override where agreement could not be reached.[229] The other points of consensus primarily involved "soft" recommendations such as enhancing staffing for the state oil and gas commission's enforcement efforts, creating an oil and gas information clearinghouse with information about the industry, and creating a mobile air quality monitoring unit within the state's Department of Public Health.[230]

The task force largely failed to agree on who should control other disaggregated areas of oil and gas regulation. These included, *inter alia*, allowing local governments to impose conditions on oil and gas operations in addition to

223. Colo. Oil and Gas Task Force Final Report (2015), https://perma.cc/T2SP-EUWX.

224. *Id.* at 4–5.

225. *Id.* at 5–49 (showing all potential regulations considered by the group, adding up to thirty-four total regulations).

226. *Id.* at 50.

227. *Id.* at 5–19 (showing the items agreed upon by the task force, adding up to nine total items).

228. *Id.* at 4–7.

229. *Id.* at 6–7 (showing a process in which the oil and gas operator would meet with the local government and the state oil and gas commission before "selecting an oil and gas location," the operator and local government would have to "work towards a compromise concerning locations," and, if compromise could not be reached after mediation, the state oil and gas commission would make the final decision).

230. *Id.* at 9–19.

those imposed by the state oil and gas agency,[231] amending state regulations to acknowledge local government land use or operational authority over oil and gas production, and allowing "local governments to assess fees to fund inspections and monitoring of the oil and gas industry."[232] Thus, although the task force followed a disaggregated approach, it could not reach agreement on allocating specific aspects of oil and gas regulation, including land use and financial aspects of this regulation, to local governments.

Although this is a vivid example of the time and other resources that can be required for a fully disaggregated approach, the Colorado example is an unusual one. Legislatures and courts—not task forces assigned to make recommendations—typically analyze the costs and benefits of preemption and reach a decision. Thus, the preemption decision is typically made by a single judge, or by a legislature that may be gridlocked and dysfunctional but at least has routine voting and deliberation procedures. Pulling together sparring government officials and stakeholders in one room and asking them to recommend how to divide up regulatory areas—as Colorado did—engages stakeholders in important ways. But it is not the quickest or most efficient approach to disaggregation, and it will often not be feasible.

Further, courts and legislatures, which are already used to making somewhat disaggregated preemption decisions as shown in Part II, might receive more assistance from interested stakeholders if a disaggregation framework were consistently followed. Parties appearing before a court or lobbying a legislature would offer reams of potentially helpful information on the comparative advantages of local, state, and federal control within a particular regulatory area. Indeed, Part III showed that parties already have raised disaggregation arguments in court, attempting to force courts to consider separate regulatory components of a given field. The Ohio Supreme Court that found a local ordinance to be wholly preempted by state law rejected the argument to disaggregate technical, operational, and land use issues as "fanciful."[233] But if courts were at least required to conduct a minimal analysis of these different types of regulations, such rapid dismissal would no longer be possible. And they could benefit from parties' evidence that showed why a particular government had been, or would be, effective in a specific regulatory area.[234]

231. The approval process still would have been coordinated between state and local governments. *Id.* at 21.

232. *Id.* at 20–25.

233. Ohio *ex rel.* Morrison v. Beck Energy Corp., 37 N.E.3d 128, 136–37 (Ohio 2015).

234. The traditions, habits, and norms embedded within institutions—which cause these institutional actors to adhere to long-followed procedures and often to resist change—will mean that the disaggregation approach will be difficult to comprehensively and rapidly impose on courts or legislatures. But encouraging this approach could gradually change stubborn traditions, norms, and habits and create precedent for further disaggregation.

Another option for reducing resource constraints on courts and legislatures would be to provide limited default disaggregation rules, which would serve as rebuttable presumptions. This tool would stray from the purely procedural approach proposed in this Article, but there are certain types of governance that traditionally rest at a local, state, or federal level, and sometimes for good reason. For example, local governments have traditionally regulated many land use matters in part due to their familiarity with localized conditions and their ability to regularly interact with concerned local citizens regarding land use issues, about which citizens have very strong opinions. And they have developed extensive expertise in this area. Courts and legislatures could therefore begin their preemption analysis from a baseline presumption against preempting local governments' land use authority, with an understanding that if the exercise of this activity led to outright bans and usurped the authority of all other levels of government, this might be unacceptable.

In contrast to land use authority, courts and legislatures should perhaps assume that information disclosure requirements are best administered and most effective at a centralized level, such as the state or federal level, because a uniform information collection scheme can be developed, and information about the impacts of a particular activity can be easily compared across jurisdictions. But this presumption, too, would need caveats. For example, local governments should perhaps have the opportunity to add disclosure requirements in order to obtain information about the potential impacts of a regulated activity on unique local resources. Further, local governments can be particularly good at collecting and reporting important information through initiatives like citizen "bucket brigades," and default rules in favor of centralized information disclosure and collection should not impede these productive efforts.

There could similarly be a default rule providing that technological requirements are typically best promulgated and enacted at a state or federal level so that regulated actors do not have to change out equipment each time they cross a jurisdictional line. A more nuanced approach, however, would recognize that local governments should be able to require additional technologies—above and beyond those required by a state or federal actor—to protect local resources. For example, even if a state does not require a pit that collects oil and gas wastes to be lined with plastic, a local government might want to require plastic liners for pits that overlie important groundwater resources.

B. Institutional Options for Disaggregation

Although courts and legislatures are already familiar with preemption issues and could be assisted by parties and stakeholder groups (or by default rules) in considering disaggregation issues as well, disaggregation might call for a different or new entity to make preemption decisions. Indeed, an extensive literature already has argued that certain entities might be best equipped to make

federalism decisions because of their ability to draw in a range of values, to decide quickly, and to incorporate a range of other comparative advantages. For example, Brian Galle and Mark Seidenfeld argue against excessive limits on agencies' authority to make preemption decisions, suggesting that agencies can incorporate more groups' values into the preemption decision and can adjust preemption as needed when regulatory situations change, among other benefits.[235] Even if preemption decisions were not wholly pushed to the agency level, agencies could assist courts[236] in their preemption decisions, providing important technical information on which levels of government historically controlled the regulatory area and sharing stakeholder views that the agency gleaned from previous work within the regulatory area. For example, even if a state's oil and gas or utility commission were not named as a party in an oil and gas or renewable energy preemption case, as an intervenor or amicus it could provide helpful information to the court about its existing role and its understanding of communities', landowners, industry's, and other stakeholders' concerns gleaned from the agency's past approvals of energy projects.

Further, Paul Diller has argued that courts might be superior to legislatures when it comes to making intrastate preemption decisions, thus supporting a doctrine wherein courts have relatively expansive authority in interpreting legislative preemption. Diller views courts as more geographically impartial than legislatures, in that legislatures consist of representatives of "individual districts rather than the state as a whole," whereas courts would view all local governments and the impact of preemption on these governments with relative impartiality.[237] Diller also argues that courts are somewhat "more insulated from political pressures"[238] than legislatures are and can make preemption decisions more quickly than legislatures—particularly in states where legislatures meet infrequently.[239]

Thus, in the context of this Article, initial preemption decisions might be better made by agencies than legislatures—or at least by legislatures that have received input from the agencies that will implement decisions. And courts should perhaps be hesitant to refuse to defer to agencies' preemption decisions, as agencies might already be more likely to recognize how different levels of government might better regulate certain aspects of a regulatory area. Further, courts—considering their potential superiority to legislatures in making more impartial preemption decisions, and making them quickly—should have the sort of leeway in interpreting legislative preemption that this Article has argued

235. Brian Galle & Mark Seidenfeld, *Administrative Law's Federalism: Preemption, Delegation, and Agencies at the Edge of Federal Power*, 57 DUKE L.J. 1933, 2009 (2008).

236. *Cf. id.* at 1993 ("Without agency assistance, courts are more likely to draw the borders of state autonomy wrongly . . . .").

237. Diller, *supra* note 6, at 1161–64.

238. *Id.* at 1164.

239. *Id.* at 1166–68.

for, including the leeway to consider disaggregation, particularly where legislative directives regarding preemption are not entirely clear.

Alternatively, a new institution operating outside of the executive, judicial, or legislative branches might best make preemption decisions to later be interpreted by agencies and courts. While the Colorado task force described in the previous section was by no means a resounding success, that organization brought together diverse stakeholders with a range of opinions about preemption, encouraging broader deliberation and better ensuring a balancing of different values in preemption decisions. The task force failed to reach agreement on many of the difficult questions involving which levels of government should regulate which aspects of oil and gas development, but a task force with a clearer mandate to reach definitive decisions—perhaps assisted by an official mediator—could perhaps more effectively reach preemption decisions under a disaggregation framework.

C. Overlapping and Conflicting Regulations

Just as disaggregation will create complexities in the preemption decision-making process—forcing courts, legislatures, or agencies to consider more factors than they typically consider in a preemption case—it also has the potential to generate complex outcomes. While different levels of government controlling different aspects of a regulatory area might sound good in theory, multi-level governance is likely to generate opposition from regulated actors. These actors are likely to have legitimate concerns about the costs of attending numerous public hearings, completing several different permitting processes, and dealing with government officials at multiple levels. Further, they may worry that regulatory goals at different government levels will conflict or overlap. For example, a local government's requirement for the posting of a relatively high bond in order to address clean-up costs might be unnecessary if the state government has such a strict technological requirement for pollution prevention that pollution from the regulated activity is highly unlikely to occur. If too many governments control different parts of the regulated area, an anticommons could even result, in which numerous governments would have the opportunity to prevent an energy project from moving forward by exercising their independent "veto" authority over one aspect of the project.[240]

But regulated entities in many areas already have to deal with government officials at many different levels of government, and within the same level of government, and helpful tools have emerged to address concerns about conflict

240. *See* Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621 (1998); Hannah J. Wiseman, *Expanding Regional Renewable Governance*, 35 HARV. ENVTL. L. REV. 477, 500–06 (2011) (describing how anticommons can arise in the energy area when different governments and private entities control different aspects of an energy project).

or excessive overlap. Professors Jody Freeman and Jim Rossi have explored how agencies can work together and increase efficiencies through tools such as interagency consultation and agreements (which could avoid overlapping regulation if consultation occurred before regulations were promulgated), joint rulemaking, and coordination of agencies by a higher-level entity, such as the President, among other tools.[241] Many of these tools already are in use. And in the energy context, many states—which make power plant siting decisions primarily at the state level but retain some control for local governments—have streamlined processes for power plant siting approvals. Through these processes, one state agency serves as the "interagency coordinating body," and all other governmental entities participate in this agency's hearings and permitting processes or at least contribute information to these processes.[242]

If a disaggregated preemption decision led to several governments controlling a regulatory area, a legislature could appoint an agency to take on this coordinating function. Or if a court interpreted existing legislation to cause disaggregation, a state agency could perhaps voluntarily take on this coordinating role. Certain governments could object—indeed, if they retained independent authority over components of the regulatory area, they could simply refuse to work with the self-appointed coordinating agency. But complaints by regulated actors regarding the burden of uncoordinated processes, and threats of further preemption efforts, might push these governments to cooperate.

D. Inadequate Regulation and Regulatory Gaps

When multiple levels of government control different aspects of a regulatory area, this does not only threaten to increase costs for regulated actors. It also could generate regulatory gaps, in which no government addressed an externality of the regulated activity, or regulation inadequately covered the externalities. Professor William Buzbee coined the term "regulatory commons" to describe this problem, which arises when: 1) an activity crosses jurisdictional lines or has externalities that extend beyond jurisdictional lines, 2) no single government entity controls all of the externalities, and 3) officials might fail to recognize or take the initiative to address the gaps that emerge.[243]

This problem could arise if a preemption decision caused different levels of government to simultaneously control different aspects of a regulatory area. In-

241. Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131, 1155–91 (2012).

242. Wiseman, *Expanding Regional Renewable Governance*, *supra* note 240, at 525–27.

243. *See* William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps,* 89 IOWA L. REV. 1, 4–7 (2003); Wiseman, *Expanding Regional Renewable Governance*, *supra* note 240, at 506–09 (describing how renewable energy development can exhibit aspects of a regulatory commons when numerous government entities control different parts of renewable energy development).

deed, the regulation of oil and gas development appears to have attributes reminiscent of a regulatory commons. The federal government controls some aspects of this area, and states (and some local governments, where they have not been preempted), control others. States insist that they are doing an adequate job of regulating oil and gas development and have tended to resist federal efforts to collect information about certain pollution incidents and enforce federal laws that might have been violated as a result of these incidents.[244] When the federal government backs down and leaves the state to address this issue, or simply does not intervene in the first place, this can leave gaps—particularly if the incident causes externalities beyond state lines. Similarly, the federal government has chosen to leave a large portion of the oil and gas regulatory area—the control of wastes—to the states. In making this decision, the EPA determined that states, for the most part, adequately regulated the storage of oil and gas wastes on well sites and the disposal of these wastes.[245] It noted some state gaps but determined that it would work to fill these gaps by assisting states in improving their regulations.[246] The resulting program[247] involves a team of federal officials, state officials, industry, and nonprofit group representatives who voluntarily investigate state oil and gas waste management programs and suggest how they can improve.[248] But states need not agree to these reviews, and even when they do, they do not consistently implement reviewers' recommendations.[249]

Selecting an entity to coordinate actions by different levels of government in regulatory areas that are disaggregated could reduce regulatory commons issues in addition to addressing potentially conflicting actions or regulations with excessive overlap. Governments would be aware of other governments' actions

244. *See* Hannah J. Wiseman, *Coordinating the Oil and Gas Commons*, 2014 B.Y.U. L. Rev. 1543, 1577–88.

245. Regulatory Determination for Oil and Gas and Geothermal Exploration, Development, and Production Wastes, 53 Fed. Reg. 25,446 (July 6, 1988), https://perma.cc/KR53-QH45.

246. *Id.* at 25,455.

247. *See* Hannah J. Wiseman, *Regulatory Islands*, 89 N.Y.U. L. Rev. 1661, 1677 n.66 (describing the "delegation" process from the EPA to the Interstate Oil and Gas Conservation Commission); *Our History*, State Rev. of Oil & Nat. Gas Envtl. Regs., https://perma.cc/XK4W-UGPQ (describing the transfer of the Interstate Oil and Gas Compact Commission's responsibilities to a group called the State Review of Oil and Natural Gas Environmental Regulations).

248. State Rev. of Oil & Nat. Gas Envtl. Regs., 2015 Guidelines 5–6 (2015), https://perma.cc/MX2T-DYF3; *State Reviews*, State Rev. of Oil & Nat. Gas Envtl. Regs. https://perma.cc/RM77-DLTB.

249. *See, e.g.*, State Rev. of Oil & Nat. Gas Envtl. Regs., La. Hydraulic Fracturing State Review 6, 12 (2011), https://perma.cc/9AQD-TUG3; La. Admin. Code tit. 43, Part XIX, § 118 (2011), https://perma.cc/6L8D-4JSE (showing that the regulation has not changed to incorporate the report recommendations).

within the area and could potentially identify and agree upon who would address any regulatory gaps.

E. Environmental Justice Concerns

A final concern that could be partially alleviated by coordinating government actions is the potential for negative externalities of oil, gas and other energy development to concentrate in low-income areas, which are often correlated with high percentages of disadvantaged minority populations. Environmental justice problems associated with industrial development arise even when one centralized entity controls much of a regulatory area. For example, electric power plants and their associated pollution—plants that are permitted under the Clean Air Act—remain heavily concentrated in low-income, minority areas.[250] This problem persists despite Executive Orders requiring consideration of environmental justice issues by federal agencies.[251]

Leaving responsibility for a regulatory area to different levels of government can also cause "hot spots" of concentrated environmental externalities. In the case of oil and gas wells, a plan like Pennsylvania's—in which the state preempted most local land use regulations yet allowed local governments to charge a fee for each well drilled within their jurisdiction—might pressure financially strapped municipalities to accept large amounts of drilling. While the money from the fees could be spent on important local concerns, the community might accept more drilling simply because officials saw no other opportunity to produce needed local funds. This could cause certain communities to endure higher amounts of pollution from concentrated drilling and hydraulic fracturing. This phenomenon would in part be alleviated by geology; companies seek out the most productive portions of a formation, and this factor—in addition to the extent to which a community welcomes or feels pressured to accept drilling—also influences the number of wells drilled. But different levels of government responsible for regulating oil and gas development under a disaggregated regime need to coordinate to identify and address potential hot spots, in addition to coordinating for the purposes of avoiding a regulatory commons and lessening the burden of overlapping and conflicting regulations on the regulated industry.

Similar environmental justice concerns can arise in the renewable energy context. Although renewable energy developments like solar and wind farms emit less pollution than conventional power plants, they impact the character of communities and can have larger impacts in areas where development is concentrated. Small farming towns can become busy hubs filled with wind turbines

250. *See, e.g.*, Nat'l Ass'n for the Advancement of Colored People et al., Coal Blooded: Putting Profits Before People (2012), https://perma.cc/YD7J-V82X.

251. Exec. Order No. 12898, 59 Fed. Reg. 7629 (1994).

and crisscrossed by electric transmission lines, with associated impacts such as blinking lights and noise. Governments working within a disaggregated framework must consider these potential "hot spots" too, and address community concerns regarding the impacts of development. Further, if disaggregation leads to more local control, and local governments compete to attract various businesses through less stringent regulation, a "race to the bottom" could occur.[252] Higher-level governments monitoring a disaggregated system would need to watch for this type of problem and potentially intervene or offset the race-to-the-bottom effects through regulations in different areas not covered by local governments.

* * *

Disaggregation will not be easy or cheap, and it raises important concerns. But many of these concerns can be addressed by ensuring adequate stakeholder representation within the legislative process, thus allowing stakeholders to provide valuable information about the comparative advantages of different levels of government within the regulatory area. Furthermore, even if preemption decisionmaking were not shifted to an agency with expertise in the area—an approach that could address the resource concern—agencies could provide information to courts making preemption decisions. And coordination of the different levels of government with regulatory authority in a disaggregated area could alleviate some concerns regarding regulatory burdens, regulatory commons, and environmental injustices.

Although disaggregation has important limits and is only a procedural approach, it will offer the many parties affected by governance decisions more access to preemption decisions. Legislatures following the approach would at least marginally address different pieces of a regulatory area rather than automatically preempting most of the field. In Texas and Oklahoma, for example, legislatures following a fully disaggregated approach to oil and gas development might have considered leaving more authority to local governments than the minimal notice, fire and emergency, and set back regulations they allowed. And courts following the disaggregated approach would have to more clearly explain why they were preempting areas of historically local control, or giving local governments authority in areas previously occupied by federal or state governments. Further, as explored in detail in Part I, although disaggregation is a wholly procedural approach, pulling apart the strands of a regulatory area within a preemption analysis makes it more likely that different governments

252. *See, e.g.,* Stewart, *supra* note 2. *But see* Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking the "Race-to-the-Bottom" Rationale for Federal Environmental Regulation*, 67 N.Y.U. L. Rev. 1210 (1992) (arguing that races to the bottom are not inevitable); Spence, *supra* note 3 (arguing that a race to the bottom is not likely to occur in the oil and gas context).

will retain some authority over certain strands. This, in turn, will avoid the binary approach that rejects the comparative advantages offered by different levels of government and simply chooses one government—state, federal, or local—to control all or most of a field.

Conclusion

The need for a more cohesive, nuanced approach to preemption law is strong, particularly in the growing area of energy law. In 2014 and 2015, two states expressly preempted most local control over oil and gas development, while two other states banned or placed moratoria on this development.[253] In the past decade, courts have reached substantially different conclusions about whether existing laws preempt local control in this area and have used substantially different reasoning for their decisions.[254] And in the area of rail safety, where oil trains now rush through thousands of communities around the country,[255] new federal regulations recognize some state and local authority while leaving most control at the federal level.[256] While many commenters supported the rule, many others objected to the limited local control.[257]

Disaggregating preemption might not have caused different outcomes in these scenarios. Indeed, the Department of Transportation considered and rejected several proposals for giving state and local governments more control over certain aspects of rail safety.[258] But by independently evaluating the different components of a regulatory area to determine the appropriate level of government in which to vest authority, courts and legislatures will consistently reach better, more transparent decisions. They will avoid, for instance, the quick, often unsatisfactory explanation that "uniformity" is required[259]—an explanation offered even when different parts of an activity could be regulated by different governments (e.g., technical regulations written and implemented by state or federal governments and land use regulations written and implemented by local governments) without making compliance impractical.

253. *See* Thomas Kaplan, *Citing Health Risks, Cuomo Bans Fracking in New York State*, N.Y. Times (Dec. 17, 2014), https://perma.cc/A6V5-QATT.

254. *See supra* notes 131–147 and accompanying text.

255. *See* Russell Gold, *Oil Trains Hide in Plain Sight*, Wall St. J. (Dec. 3, 2014), https://perma.cc/H38F-D8QT (providing a map of crude oil by rail routes); Pipeline & Haz. Materials Safety Admin., Operation Safe Delivery Update 1–2, https://perma.cc/YC7L-US2S ("At any given time, shipments of more than two million gallons are often traveling distances of more than one thousand miles.").

256. Pipeline & Haz. Materials Safety Admin., *supra* note 255.

257. *Id.* at 234–42.

258. *Id.* at 235, 237–39.

259. *See, e.g.*, Energy Mgmt. Corp. v. City of Shreveport, 397 F.3d 297, 304 (5th Cir. 2005) (noting the importance of "state uniformity").

Although this Article has focused on energy law, disaggregation would also be beneficial beyond this context. Numerous regulatory areas are undergoing similarly conflicted and confusing preemption battles at the local, state, and federal level. For example, in the immigration context, cities have attempted to punish employers who hire illegal immigrants and take other immigration matters into their own hands,[260] with numerous federal-state[261] and intrastate conflicts ensuing. Recognition of the importance of certain federal, uniform control in this area, as well as the ability of local governments to work with federal officials, at least in the enforcement and perhaps informational regulatory contexts (e.g., investigating the extent of illegal immigration and the associated impacts on immigrants and local governments)[262] could help address some of these conflicts.

Further, disaggregation could potentially provide a useful framework for the preemption of common law claims—a common practice not explored in detail here. Just as courts and legislatures often preempt lower-level regulation, they also commonly preempt or avoid preempting tort-based and other claims.[263] These claims can augment or in some cases obviate the need for regulation. In this preemption context, courts could more closely investigate the types of common law claims that parties raise and investigate whether and how these claims conflict with different components of a regulatory field.

In light of ongoing local, state, and federal conflicts in many regulatory areas, legislatures and courts will likely continue to address a seemingly endless line of preemption questions, and they will continue to rely on seemingly irreconcilable values in reaching preemption decisions. It is time to deploy a more cohesive, consistent approach that will more explicitly recognize these different values and balance them, giving different governments the opportunity to bring their unique advantages to the regulatory table.

---

260. *See supra* note 33.

261. *See, e.g.*, Arizona v. United States, 132 S. Ct. 2492 (2013); Chin, *supra* note 33, at 1865–74 (describing many of the cases).

262. *See, e.g.*, Carrie L. Arnold, Note, *Racial Profiling in Immigration Enforcement: State and Local Agreements to Enforce Federal Immigration Law*, 49 Ariz. L. Rev. 113, 115 (2007) ("[S]tates and localities wishing to enforce civil as well as criminal immigration violations may enter into a special agreement with the DOJ. The Immigration and Nationality Act ("INA") provides for the training and authorization of state and local officers to enforce immigration law if the state or local jurisdiction enters into a Memorandum of Agreement ("MOA") with the DOJ.").

263. *See, e.g.*, Geier v. Am. Honda Motor Co., 529 U.S. 861, 874–75 (2000) (products liability preemption); *see also* Thomas O. McGarity, The Preemption War: When Federal Bureaucracies Trump Local Juries (2008) (exploring and critiquing many of these cases).