

COMMENT

Jagged Edges

Modern adverse possession doctrine appears to be in regular need of re-justification. There are now alternative methods of addressing innocent improvements or title defects, as well as increasingly robust and reliable recording systems. To the layperson, adverse possession appears to be legalizing theft. In this ongoing debate, a great deal of ink has been spilled justifying or criticizing adverse possession, particularly on the basis of its economic efficiency. This Comment provides a new lens for viewing the efficiency of adverse possession by examining the tendency for successful claims to reshape the regularity of boundary lines. As this Comment attempts to demonstrate, the short- and long-term economic effects of boundary irregularity raise significant questions regarding the suitability of adverse possession doctrine to contemporary needs, particularly for certain topographies. Moving forward, adverse possession doctrine may be able to incorporate considerations of these irregularity effects in order to improve efficiency at both a parcel-by-parcel and a community-wide level.

Part I outlines the predominant efficiency justifications for adverse possession and critiques of these justifications. Part II describes the effects of adverse possession on boundary regularity and the effects of boundary regularity, in turn, on land values, transaction costs, and long-term economic trends. Part III examines adverse possession doctrine and statutes, finding no evidence that courts currently take these concerns about boundary irregularity into account but identifying potential footholds for them to do so. Finally, Part IV notes how the effects of boundary irregularity differ across topographies in a way that may lend further explanatory power to the evolution of states' divergent adverse possession laws.

I. ADVERSE POSSESSION AND NOTED TENSIONS WITH EFFICIENCY

One of the primary and longstanding justifications for the adverse possession doctrine is that it increases economic efficiency. Adverse possession, it is argued, results in higher-valued uses for individual parcels of land.¹ Some scholars have further claimed that adverse possession reduces transaction costs for the property market as a whole.²

In response, other legal scholars have criticized adverse possession as inefficient on numerous grounds. First, it is claimed, if the purpose of adverse possession were to transfer titles to higher-valued uses, then use of a liability rule rather than a property rule would be far better at ensuring that adverse possession claims succeed only when the adverse possessor's value actually exceeds that of the original owner.³ Second, with robust, reliable modern title recording systems, adverse possession's ability to clear aside stale or questionable claims is considered less useful.⁴ In fact, potential adverse possession claims may actually "mak[e] the record less reliable . . . , decreas[ing] the certainty" of ownership.⁵ Third, requirements of good faith intent in adverse possession, as found in some states, arguably block efficient adverse possessors who are aware they are squatting while rewarding innocent but inefficient ones.⁶ Finally, it has been pointed out that the focus on higher-

1. See, e.g., ROBERT COOTER & THOMAS ULEN, *LAW & ECONOMICS* 154 (6th ed. 2012) ("The economic advantage of adverse possession is that it . . . allows property to move to higher-valuing users."); 16 RICHARD R. POWELL & PATRICK J. ROHAN, *POWELL ON REAL PROPERTY* § 91.01[4] (Michael Allan Wolf ed. 2014) (suggesting that "efficient allocation of our limited land resources" is one of the policies served by adverse possession); Paula R. Latovick, *Adverse Possession Against the States: The Hornbooks Have It Wrong*, 29 U. MICH. J.L. REFORM 939, 941 (1996).
2. See, e.g., Richard A. Epstein, *Past and Future: The Temporal Dimension in the Law of Property*, 64 WASH. U. L.Q. 667, 678 (1986) (arguing that adverse possession reduces "title-clearing costs" as well as the costs of actual litigation by "induc[ing] individuals to bring suit early"); Thomas W. Merrill, *Property Rules, Liability Rules, and Adverse Possession*, 79 NW. U. L. REV. 1122, 1129-30 (1984).
3. See, e.g., Noel Elfant, Comment, *Compensation for the Involuntary Transfer of Property Between Private Parties: Application of a Liability Rule to the Law of Adverse Possession*, 79 NW. U. L. REV. 758, 761-62 (1984).
4. See Kristine S. Cherek, *From Trespasser to Homeowner: The Case Against Adverse Possession in the Post-Crash World*, 20 VA. J. SOC. POL'Y & L. 271, 285 (2012) ("Given the absence of an effective system for recording title to real property in the post-feudal period, society relied on long-term possession as sufficient evidence of ownership. In contrast, today we have long-established systems for the recording of title to real property.").
5. Jeffrey Evans Stake, *The Uneasy Case for Adverse Possession*, 89 GEO. L.J. 2419, 2442 (2001).
6. Lee Anne Fennell, *Efficient Trespass: The Case for "Bad Faith" Adverse Possession*, 100 NW. U. L. REV. 1037, 1068 (2006) ("Slicing the universe of encroachments along the dimension of ignorance does not . . . separate efficient encroachments from those that are inefficient.").

valued *uses* fails to take into account non-use utility, potentially undermining both environmental quality and broader social efficiency.⁷

This Comment seeks to contribute to the ongoing analysis of adverse possession's efficiency. It examines how successful adverse possession claims, by redrawing the shape of property boundaries, can sometimes reduce market value, generate subsequent transaction costs, and cause larger systemic distortions. These findings further undermine the aforementioned characterization of adverse possession as efficiency-promoting. The fact that existing adverse possession doctrine does not take boundary regularity into account greatly reduces adverse possession's efficiency. Courts and legislatures, however, can potentially make adverse possession doctrine more efficient by incorporating boundary regularity into the doctrine.

II. THE EFFECTS OF ADVERSE POSSESSION ON EFFICIENCY DUE TO BOUNDARY IRREGULARITY

A. *Adverse Possession Affects Boundary Irregularity*

The requirement that adverse possession be *actual*⁸ – defined as a person's "having or holding [the] property in one's power" and "exercis[ing] . . . dominion over" it⁹ – frequently results in pieces of land being carved out of the original owner's parcel rather than the transfer of the entire parcel. An adverse possessor might have actual possession of only a certain portion, such as a fenced-in area adjacent to the property line¹⁰ or a campsite gradually constructed in an uncultivated area,¹¹ leaving the remainder to the original owner. As a result, adverse possession has the potential to make property boundaries more or less regular in different disputes. For example, one adverse possession might act to "complete the square," as it were, increasing regularity:

-
7. See John G. Sprankling, *An Environmental Critique of Adverse Possession*, 79 CORNELL L. REV. 816 (1994).
 8. See *infra* note 26 and accompanying text (identifying state statutes that list typical adverse possession requirements in more detail, including the requirement of actual possession).
 9. BLACK'S LAW DICTIONARY 1281 (9th ed. 2009) (defining "possession"). For a prototypical example of this principle in practice, see *Eime v. Bradford*, 185 S.W.3d 233, 236 (Mo. Ct. App. 2006), which notes that "[a]ctual possession is the present ability to control the land."
 10. See, e.g., *Cagle v. Hammond*, 57 So. 3d 150, 152 (Ala. Civ. App. 2010).
 11. *Nome 2000 v. Fagerstrom*, 799 P.2d 304, 307 (Alaska 1990).



White adversely possesses Gray from Black, resulting in two rectangular parcels.

Another adverse possession might cleave off a bizarre shape from an otherwise rectangular parcel, decreasing regularity:

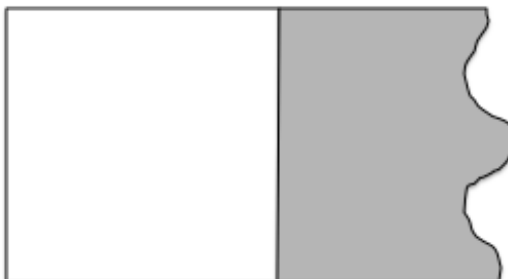


White adversely possesses Gray from Black, resulting in two non-rectangular parcels.

Finally, particularly in claims of constructive possession, where an occupier with color of title can adversely possess the entire parcel referred to in the title,¹² an adverse possession may neither increase nor decrease regularity:

12. Some states allow an adverse possessor with color of title to claim constructive possession of the entire parcel referred to in the title, even if *actual* possession only took place on a small portion. *See, e.g.,* Skelly v. Brucher, No. CV084033459S, 2011 WL 522788, at *4 (Conn. Super. Ct. Jan. 13, 2011) (“Where there is color of title . . . actual and exclusive occupation of any part of the deeded premises carri[s] with it constructive possession of the whole.”) (quoting Cmty. Feed Store v. Ne. Culvert Corp., 559 A.2d 1068, 1070 (Vt. 1989)); Duplantis v. Bergeron, No. 2010 CA 2244, 2011 WL 4613014, at *3 (La. Ct. App. Oct. 5, 2011) (“[P]laintiffs must only show that they . . . possessed a part of the land for some period in order to avail themselves of the benefit of constructive possession over all of the land within the limits of their title.”); Beck v. Beck, 648 A.2d 341, 343 (Pa. Super. Ct. 1994) (“However, a disseisor who enters under ‘color of title’ and demonstrates actual possession . . . of a portion of property described in the invalid instrument, may thereby establish constructive possession of [the] entire tract described therein.”); Foust v. Metcalf, 338 S.W.3d 457, 465 (Tenn. Ct. App. 2010) (“When a party holds some portion of land in actual adverse possession, and that possession is under color of title, ‘the party so holding has constructive possession of all the premises outside of his inclosure to the limits of his claim or assurance of title.’”) (quoting Green v. Cumberland Coal & Coke Co., 72 S.W. 459, 460 (Tenn. 1903)).

JAGGED EDGES



White adversely possesses the entirety of Gray, leaving the eastern irregular border unchanged.

Consequently, adverse possession has the potential to alter the general level of regularity in land boundaries with every dispute. In the long run, adverse possession may contribute to a general trend toward or away from regularity. As outlined in the next section, the relative regularity of parcel boundaries has direct effects on land value, transaction costs, and property dispute frequency.

B. Boundary Irregularity May Decrease the Value of Land, Increase Transaction Costs, and Cause Long-Term Distortions

Boundary regularity can directly impact land values and transaction costs. Using a natural experiment in central Ohio—where land demarcated by metes and bounds like rivers and trees is interspersed with land demarcated by standardized rectangular borders—economists Gary Libecap and Dean Lueck demonstrate that per-acre land values are higher with regular, straight-line boundaries.¹³ Parcels of land demarcated under this rectangular system also undergo fewer property disputes and more market transactions.¹⁴ Hence, even if dividing a parcel in two has certain efficiency gains—say, by allowing one owner to use a riparian section for water access and another owner to use a forested section for logging when neither has the capital alone to do both¹⁵—these gains may be completely offset by the net reduction in land value and increased transaction costs if the division occurs in an irregular fashion.

13. Gary D. Libecap & Dean Lueck, *The Demarcation of Land and the Role of Coordinating Property Institutions*, 119 J. POL. ECON. 426, 428 (2011) (finding the value of rectangular parcels to be as much as twenty to thirty percent higher than irregularly shaped parcels in the areas they examined).

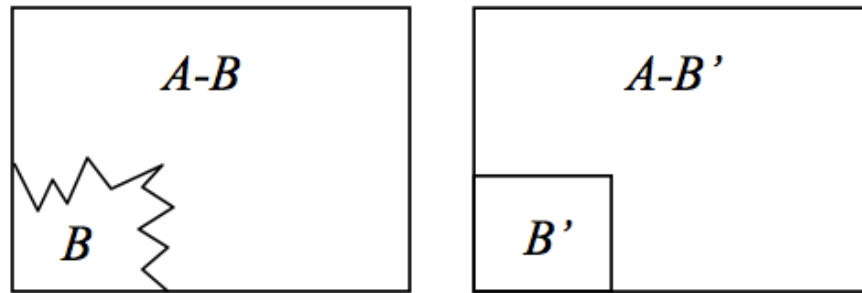
14. *Id.*

15. For other typically claimed efficiency gains, see *supra* notes 1-2 and accompanying text.

1. *Boundary Irregularity May Decrease Land Values*

Applying Libecap and Lueck's results to the case of adverse possession, the effects of boundary irregularity are twofold. First, an adverse possessor may no longer value the disputed section of property more than the original owner does if carving out the disputed section with irregular borders reduces its market value. Second, the new irregular borders can also reduce the value of the original owner's remaining parcel. A numerical example lends some insight into how even a relatively small percentage decrease in value associated with border irregularity can result in a large total loss when experienced by both parties.

Consider the following example: original Owner (OO) owns the heavily forested parcel of land *A*, which includes a small clearing in its southwestern portion. Adverse Possessor (AP) has been in actual possession of this clearing for the requisite statutory period. A court transferring title of the clearing to AP may draw the boundaries in two ways: First, the actual jagged tree line surrounding the clearing may be followed, resulting in the highly irregular parcel *B*. Second, a parcel of equal area may be created by using straight lines and only approximating the shape of the clearing, resulting in rectangular parcel *B'*:



Two different methods of dividing up parcel A.

OO values the whole of *A* at \$100, and *A-B* at \$80. While *A-B* and *A-B'* have the same acreage, *A-B'* does not suffer from an irregular southwestern border and hence has higher market value, resulting in a higher ultimate valuation from OO of \$90.¹⁶ Meanwhile, AP values the clearing parcel *B* at \$20. Again, while *B* has the same acreage and location as *B'*, *B'* does not suffer from irregular borders, so AP's ultimate valuation of *B'* is higher, at \$30.

16. Note that this 12.5 percent increase in value is actually conservative compared to the results of Libecap and Lueck. See Libecap & Lueck, *supra* note 13, at 428.

Hence, if the court grants *B* to AP, the result would be $\$20 + \$80 = \$100$ total in value. If the court grants *B'* to AP, the result would be $\$30 + \$90 = \$120$ total in value. The latter scenario, in addition to being more efficient than the former, is also a Pareto improvement, making both parties better off than the alternative. As outlined in later sections, the latter scenario also features reduced transaction costs for resale down the line, promoting systemic efficiency.

As this example demonstrates, dividing parcels along irregular boundaries can lead to relatively dramatic efficiency losses, even when using conservative estimates of the premium placed on parcels with rectangular borders. The example also shows that if adverse possession occurs, both the adverse possessor and the original owner might prefer that a rectangular section be carved out rather than an irregular one.

One might object that Coasian bargaining could mitigate any court decision that inefficiently carves out an irregular parcel. Since both parties would be better off with a regular parcel, they could renegotiate the property lines. But the fact that litigation for adverse possession has occurred—rather than the adverse possessor simply having bargained for the property with the true owner in the first place—already implies the existence of some sort of barrier preventing the parties from transacting, especially in those cases where the property was not possessed in good faith.¹⁷ Either way, two neighbors-turned-adversaries, fresh out of contentious litigation, seem unlikely to entertain mutually beneficial bargaining. As a result, if these efficiency gains from carving out regular parcels rather than irregular ones are to be captured, it would largely be up to the courts to do it. However, as outlined in Part III, the doctrine of adverse possession is at best indifferent to these efficiency considerations, and more likely hostile to them.

2. *Boundary Irregularity Increases Transaction Costs and Causes Long-Term Distortions*

Libecap and Lueck's study also found that irregular boundaries led to more property disputes and fewer market transactions.¹⁸ This finding is troubling on its face for those who believe that adverse possession promotes efficiency, since

17. For example, the so-called Maine rule effectively privileges *bad faith* in adverse possession: an intent to claim land that one does not own. See *Preble v. Maine Cent. R.R. Co.*, 27 A. 149, 150 (Me. 1893). The rule has since been eliminated in Maine itself, via ME. REV. STAT. ANN. tit. 14, § 810-A (2009), but can still be found in certain jurisdictions. See, e.g., *Fulkerson v. Van Buren*, 961 S.W.2d 780, 783 (Ark. Ct. App. 1998); *Perry v. Heirs of Gadsden*, 449 S.E.2d 250, 251 (S.C. 1994) (per curiam); *Ellis v. Jansing*, 620 S.W.2d 569, 571-72 (Tex. 1981).

18. See Libecap & Lueck, *supra* note 13, at 428.

transaction costs are demonstrably increased overall. Whatever decreases in title-clearing and litigation costs are associated with adverse possession,¹⁹ they clearly can be offset by the costs of increased irregularity, at least in the aggregate.

Furthermore, there are two additional costs of irregularity not incorporated into Libecap and Lueck's analysis. First, the best uses of land will vary over time. The potential to engage in fracking (hydraulically fracturing shale for natural gas), for example, was at one time unknown and technologically impossible, but now may efficiently supplant farming along river basins or surface mining in Appalachia.²⁰ Adverse possession makes it costlier for future uses to take root by breaking up land into highly irregular shapes that are suitable primarily for a particularized contemporary use. A parcel that has been shaped for a narrow, specialized range of uses is more likely to need reshaping—and hence further negotiation with neighboring owners—to adapt to other uses in the future. To some extent, this concern with the shape of properties overlaps with longstanding concerns regarding property fragmentation: it is simply more difficult to negotiate with more owners across more parcels, all else being equal.²¹ Additionally, as noted earlier, someone looking to reshape those property boundaries to reflect contemporary uses will face costlier and less reliable surveys as a result of the earlier adverse possession, as well as a greater risk for property disputes. In this way, adverse possession not only makes ownership more uncertain²² but also freezes land boundaries and sales.

Second, when irregular boundaries proliferate, coordination for infrastructure investment can become more difficult. In order to avoid cleaving someone's parcel of land in two, those seeking to build roads, rails, or pipelines must follow longer, twisting paths rather than straight lines. This increases costs; for example, with roads, winding paths mean longer, less efficient routes with lower speed limits as well as increased crashes and fatalities.²³ With

19. See *supra* note 2 and accompanying text.

20. Cf. *Today in Energy: North America Leads the World in Production of Shale Gas*, U.S. ENERGY INFO. ADMIN. (Oct. 23, 2013), <http://www.eia.gov/todayinenergy/detail.cfm?id=13491> [<http://perma.cc/M9WU-U5X9>]; Zhongmin Wang & Alan Krupnick, *A Retrospective Review of Shale Gas Development in the United States*, RESOURCES FOR THE FUTURE 10 (Apr. 2013), <http://www.rff.org/RFF/documents/RFF-DP-13-12.pdf> [<http://perma.cc/CD7E-RM4G>].

21. See, e.g., James M. Buchanan & Yong J. Yoon, *Symmetric Tragedies: Commons and Anticommons*, 43 J.L. & ECON. 1, 4 (2000); Norbert Schulz et al., *Fragmentation in Property: Towards a General Model*, 158 J. INST. & THEORETICAL ECON. 594, 605-06 (2002).

22. See Stake, *supra* note 5, at 2439.

23. See Fed. Highway Admin., *Horizontal Curve Safety*, U.S. DEP'T TRANSP., http://safety.fhwa.dot.gov/roadway_dept/horcurves/cmhorcurves/horiz_curve.pdf [<http://perma>

railways, minimum railway curve radii and transition curves completely forbid paths that zigzag too sharply or frequently.²⁴ Transportation routes are an obvious example, but any infrastructure project that potentially crosses multiple property lines—parks, man-made waterways, utilities—would be stymied when those lines are complex. Eminent domain powers may help, but the availability of those powers for a given project may vary based on state law, local government delegation, or political viability. Even when eminent domain is available, the taxpayer cost of potentially numerous, idiosyncratic valuation trials for projects that are forced to go *through* parcels²⁵ would still be much higher than the cost of obtaining easements along the edges of fewer, rectangular parcels. In this way, adverse possession’s net impact on boundary irregularity has the potential to make investments in infrastructure increasingly costly, with deleterious impacts on long-term economic growth.

III. BOUNDARY CONCERNS HAVE NO PLACE IN MODERN ADVERSE POSSESSION DOCTRINE, BUT COULD WITH MINOR CHANGES

The current legal doctrine of adverse possession ignores any change in value that results from dividing parcels into either irregular or regular shapes. Typically, adverse possession statutes require only that the possession be continuous, actual, adverse, open and notorious, and exclusive for a specified length of time.²⁶ These statutes do not explicitly mention any potential changes

.cc/952R-MT9N] (noting the need for reduced speed around curves as well as the disproportionate number of crashes that occur on horizontal curves).

24. See Am. Ry. Eng’g & Maint.-of-Way Ass’n, *Railway Track Design*, in PRACTICAL GUIDE TO RAILWAY ENGINEERING 224 (2003), https://www.arena.org/eseries/scriptcontent/custom/e_arena/Practical_Guide/PGChapter6.pdf [<http://perma.cc/FP6P-J3CC>]; Transit Coop. Research Program, *Track Design Handbook for Light Rail Transit*, FED. TRANSIT ADMIN. 3-13 (2012), http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf [<http://perma.cc/6ZBJ-LSQ6>] (noting minimum railway curve limits as well as increased costs associated with track curvature).
25. For evidence of the value lost in disrupting parcel contiguity itself, consider the longstanding legal principle of plottage—“the increment of value which accrues to two or more [contiguous] lots in single ownership by virtue of their consequent adaptability for greater use”—as well as the high transaction costs associated with parcel re-assembly due to holdout effects. BALLANTINE’S LAW DICTIONARY 956 (3d ed. 1969); see also Vitauts M. Gulbis, *Assemblage or Plottage as Factor Affecting Value in Eminent Domain Proceedings*, 8 A.L.R. 4th 1202 (1981) (noting that “courts have accepted plottage as an element of value” where “there is unity of ownership over the lots, and the lots are contiguous and adaptable to integrated use”); Thomas J. Miceli & Kathleen Segerson, *Land Assembly and the Holdout Problem Under Sequential Bargaining*, 14 AM. L. ECON. REV. 372 (2012).
26. For prototypical examples, see ARK. CODE ANN. § 18-11-106 (2013); GA. CODE ANN. § 44-5-161 (2010); and N.M. STAT. ANN. § 37-1-22 (2004). Some states have the additional requirement that improvements be made to the disputed land by the adverse possessor. See

in value to the land as a factor in determining whether adverse possession has successfully occurred. Nor have the courts interpreted the typical checklist of requirements for an adverse possession claim in such a way as to incorporate potential loss in value. Rather, the actual value of the disputed land comes into play only when calculating damages after adverse possession fails²⁷ or, in states that allow adverse possession only when the adverse possessor has made sufficient improvements to the land, when determining the extent of improvements made.²⁸ As a result, the relative value of the land in one piece, multiple irregular pieces, or multiple regular pieces is given no consideration.

Judges, however, could use the improvement requirement as a foothold for incorporating border irregularity concerns. They could calculate the extent of improvements by comparing the value of the disputed land cleaved from the larger parcel (along with any new additions) to the drop in value of the remaining parcel. If judges were to allow adverse possession only when the former outweighs the latter, then any change of value due to increased irregularity would be implicitly taken into consideration.

Most courts are already in the habit of considering the changes in value associated with breaking up parcels into different pieces. In particular, the doctrine surrounding partition disputes among co-tenants is illustrative. Partition in kind—in which the court actually divides the parcel into multiple pieces—is the default, but partition by sale, whereby the court orders that the whole parcel be sold and revenue divided among the disputing owners, may be used instead if dividing the parcel up would significantly impact its total value.²⁹ The rule stated in *Shields v. McConville* is typical of most jurisdictions:

infra note 28. Certain states also require that the adverse possession be done in good faith—or, more rarely, bad faith. See *supra* note 17.

27. See, e.g., *Kroulik v. Knuppel*, 634 P.2d 1027, 1030 (Colo. App. 1981) (awarding original owner damages “measured by the diminution in the market value of the real property” for activities carried out by the attempted adverse possessors); *Bowlender v. Mapes*, No. OT-08-033, 2009 WL 354477, ¶ 23 (Ohio Ct. App. Feb. 13, 2009) (declining to award damages to the original property owner for the actions of the attempted adverse possessor since they “failed to demonstrate . . . specific property value depreciation”); *Scott v. Elliott*, 451 P.2d 474, 480 (Or. 1969) (awarding original owner damages of “the fair rental value of the property” for the time the land was occupied by the attempted adverse possessor).
28. See, e.g., *Hill v. Cape Coral Bank*, 402 So. 2d 945, 946 (Ala. 1981) (“[T]hey had made permanent improvements upon the property, the value of which greatly exceeded the value of the use and occupation of the land, and even of the land itself.”); *Rodgers v. Pahoundis*, 897 N.E.2d 680, 695 (Ohio Ct. App. 2008) (noting that the adverse possessor’s changes to the disputed property “were either detrimental . . . [or] added little value to the property”); *Catlett v. Whaley*, 731 S.W.2d 544, 546 (Tenn. Ct. App. 1987) (noting that, aside from the improvements made by the adverse possessor, the “tract was landlocked and of little apparent value”).
29. Zachary D. Kuperman, Note, *Cutting the Baby in Half*, 77 BROOK. L. REV. 263, 268-69 (2011) (“[S]tatutes in almost every jurisdiction . . . favor partition in kind, and allow sale only if

Whether partition in kind will result in great prejudice . . . requires comparing two amounts. The first is the amount an owner would receive if the property were divided in kind and the owner then sold his portion of the property. The second is the amount each owner would receive if the entire property were sold and the proceeds were divided among the owners. If the first amount is materially less than the second amount, great prejudice has been shown.³⁰

Courts' comparative reluctance to consider these same diminutions in property value in adverse possession cases is striking. Given that courts are both able and willing to consider this value change in other areas of property law, folding irregularity concerns into the improvement requirement would not require any additional expertise.

On the other hand, taking into account the *systemic* costs associated with boundary irregularity—increased property disputes and transaction costs—probably should not be left up to the courts. Whether the gains to efficiency achieved through protecting reliance interests from ancient claims or title defects are actually outweighed by the litigation costs associated with adverse possession itself or the costs of searching for title beyond what is recorded is a broad policy consideration. While courts are competent to undertake the case-by-case inquiry of whether redrawing the boundary lines in a certain way would reduce the value of one particular parcel of land, legislatures—with the benefit of committee specialization, fact-finding commissions, and expert testimony—are generally better positioned to make such larger systemic

physical partition would result in 'great prejudice' or 'manifest injury' to a party in interest.”).

30. 820 N.W.2d 868, 877 (Neb. 2012); *see also* Butte Creek Island Ranch v. Crim, 136 Cal. App. 3d 360, 367 (1982) (“[E]vidence which supports a partition sale rather than physical division is economic evidence to the effect that, due to the particular situation of the land, the division of the land would substantially diminish the value of each party’s interest.”); Schnell v. Schnell, 346 N.W.2d 713, 716 (N.D. 1984) (noting that partition in kind is preferred to partition by sale unless “the value of the share of each in case of a partition would be materially less than his share of the money equivalent that could probably be obtained from the whole”) (quoting Berg v. Kremers, 181 N.W.2d 730, 733 (N.D. 1970)); Fike v. Sharer, 571 P.2d 1252, 1254 (Or. 1977) (“The established test of whether a partition in kind would result in great prejudice to the owners is ‘whether the value of the share of each in case of a partition would be materially less than his share of the money equivalent that could probably be obtained for the whole.’”) (quoting Haggerty v. Nobles, 419 P.2d 9, 12 (Or. 1966)); Cecola v. Ruley, 12 S.W.3d 848, 855 (Tex. App. 2000) (“If the property can be divided in kind without materially impairing its value, a sale will not be ordered, but when dividing the land into parcels causes its value to be substantially less than its value when whole, the rights of the owners are substantially prejudiced.”).

analyses.³¹ Since many states define adverse possession by statute, legislatures would also be better positioned to implement any such change. This two-pronged approach—whereby courts consider the case-by-case effects of irregularity and legislatures consider the effects of regularity writ large—provides a more prudent allocation of responsibility.

IV. TOPOGRAPHICAL VARIANCE AND TRENDS IN ADVERSE POSSESSION

The effects of boundary irregularity on property values and transaction costs described in Part II do not apply with equal force across all topographies. For example, Libecap and Lueck explicitly note that where terrain is highly variable, in such a way that it changes across even small plots, the costs of rigidity associated with maintaining a straight-line property grid are much greater and hence more likely to outweigh the benefits of regularity.³² In their study, the gains of maintaining regular property boundaries clearly exceeded the costs of rigidity, even in the short run, but their study involved a fair amount of flat, featureless terrain.³³ States with terrain that varies significantly across plots might be better off not incorporating concerns with boundary regularity into their adverse possession doctrines, or constructing statutes sufficiently open-ended for judges to determine parcel-by-parcel when regularity might be salient. But for flat, featureless states with little variation between plots, the absence of such considerations is more striking and potentially costly.

While some of the effects outlined in Part II are not equally robust across all geographies, many of the long-term costs of irregular boundaries—difficulty in adapting land to new uses, higher costs for developing infrastructure—apply to all types of terrain. These costs are not necessarily incorporated into the bottom line of the analysis done by Libecap and Lueck, who focus exclusively on comparing market values, transaction frequencies, and the number of property disputes. Hence, even in highly complex and varied terrain, one could expect long-term effects of boundary irregularity to manifest themselves as different “[p]opulation densities, land use[s], and . . . long-term economic growth.”³⁴

31. For a full analysis of the comparative competencies of courts and legislatures in such inquiries, see WILLIAM N. ESKRIDGE, JR. ET AL., *CASES AND MATERIALS ON LEGISLATION: STATUTES AND THE CREATION OF PUBLIC POLICY* (4th ed. 2007).

32. See Libecap & Lueck, *supra* note 13, at 449.

33. *Id.* at 434-35.

34. *Id.* at 428.

Furthermore, while no state expressly takes into account concerns about boundary regularity, the effects of boundary regularity may be used in future research to help explain some existing features of adverse possession statutes. For example, one study has found that high population densities correlate with longer statutes of limitations for adverse possession.³⁵ Where population is highly concentrated, the number of land owners per square mile is also likely to be high, such that there may be a higher risk that land will be continuously chopped up into small, irregular bits by adverse possession suits over time. Longer statutes of limitations make it less likely that any of these suits will be successful. Additionally, there is a much greater variation among the statutes of limitations for adverse possession than among statutes of limitations for most personal actions.³⁶ This variation in statutory periods may track the variable costs of boundary irregularity across different states' topographies. Recognizing the effects of adverse possession on boundary irregularity may open the door to a greater understanding of how contemporary variation in adverse possession statutes came to pass, and how the doctrine could evolve in the future to increase its efficient application.

CONCLUSION

Successful adverse possession claims, through the application of actual possession requirements, can lead to both parcel-by-parcel and aggregate changes in boundary irregularity. Increases in boundary irregularity can in turn diminish land value, increase transaction costs, and lead to long-term economic distortions. However, the statutes and case law surrounding adverse possession reflect either a lack of awareness or an unwillingness to take such factors into consideration. Moving forward, boundary regularity considerations may be incorporated into adverse possession doctrine without great difficulty, thereby increasing the efficiency of adverse possession.

MATTHEW SIPE*

35. Jeffrey M. Netter et al., *An Economic Analysis of Adverse Possession Statutes*, 6 INT'L REV. L. & ECON. 217, 225 (1986).

36. See Harry B. Littell, *A Comparison of the Statutes of Limitations*, 21 IND. L.J. 23, 32 (1945).

* I am deeply grateful to Professor Claire Priest, who inspired and advised the paper that became this Comment. I would also like to thank the editors of the *Yale Law Journal*, especially Noah Kazis, for their careful editing and insightful feedback.