2017

The Value of the Right to Exclude: An Empirical Assessment

Jonathan Klick
University of Pennsylvania Carey Law School

Gideon Parchomovsky
University of Pennsylvania Carey Law School

Author ORCID Identifier:

Jonathan Klick 0000-0003-1505-360X

ARTICLE

THE VALUE OF THE RIGHT TO EXCLUDE: AN EMPIRICAL ASSESSMENT

JONATHAN KLICK† & GIDEON PARCHOMOVSKY††

Property theorists have long deemed the right to exclude as fundamental and essential for the efficient use and allocation of property. Recently, however, proponents of the progressive property movement have called into question the centrality of the right to exclude, suggesting that it should be scaled back to allow the advancement of more socially beneficial uses of property. Surprisingly, the debate between the proponents and detractors of the right to exclude is devoid of any empirical evidence. The actual value of the right to exclude remains unknown.

In this Article, we set out to fill this void by measuring, for the first time, the value of the right to exclude. To that end, we use the passage of the Countryside and Rights of Way Act of England and Wales in 2000 as a natural experiment to provide

† Professor of Law, University of Pennsylvania Law School, and Erasmus Chair of Empirical Legal Studies, Erasmus University Rotterdam.

†† Robert G. Fuller, Jr. Professor of Law, University of Pennsylvania Law School, and Professor of Law, Bar-Ilan University School of Law, Israel.

We are grateful to Michael Alexeev, Lee Alston, Douglas Baird, Shyam Balganesh, Abraham Bell, Omri Ben-Shahar, Miriam Bitton, Pete Boettke, Karen Bradshaw, Yun-chien Chang, Adam Chilton, Eric Claeys, Robert Cooter, Dhammika Dharmapala, Michael Faure, Lee Fennell, Jonah Gelbach, Yehonatan Givati, John Goldberg, Mark Grady, Michael Greve, Assaf Hamdani, Andrew Hayashi, Daniel Hemel, William Hubbard, Rich Hynes, Bruce Johnsen, Jason Johnston, Dan Kelly, Jacob Klick, Bruce Kobayashi, Russell Korobkin, David Lametti, Ronit Levine Schnur, Saul Levmore, Gary Libecap, Dean Lueck, Julia Mahoney, Paul Mahoney, Greg Mitchell, Dominic Parker, Lance Pomerantz, Ariel Porat, Richard Sander, Peter Siegelman, Ilya Somin, Jeff Stake, Endre Stavang, Alex Stein, Lior Strahilevitz, Thomas Stratmann, Alexander Stremitzer, Eyal Zamir, and participants at workshops and seminars at the University of Chicago, UCLA, George Mason University, Hebrew University of Jerusalem, Indiana University, the University of Pennsylvania, and the University of Virginia for invaluable comments and suggestions. Finally, we thank Ananth Padmanabhan for outstanding research assistance.

empirical insight into this issue. We show that the Act's passage led to statistically significant and substantively large declines in property values in areas of England and Wales that were more intensively affected by the Act relative to areas where less land was designated for increased access. While property prices might not capture all social value, our findings provide a critical input to the debate regarding access to private property. Given that the access rights provided by the "right to roam" included in the Act represent seemingly minimal intrusions on private property, our findings indicate that property owners view even small restrictions on their right to exclude very negatively.

We believe that our findings are of significant importance to lawmakers in the United States, as they provide an empirical basis for policymaking in the realms of property and land use. In the United States, private property rights enjoy constitutional protection under the Takings Clause of the Fifth Amendment. Hence, any attempt to formalize a general right to roam or other intrusions on the right to exclude may require the government to pay just compensation to affected property owners. Our study suggests what the just compensation amounts are likely to be. This information would allow lawmakers to make better decisions about the social desirability of various land use measures. We would like to emphasize that our findings should not be read as a call against the adoption of a right to roam or any other public privilege. Our only goal is to furnish a needed empirical foundation that would permit lawmakers to conduct a more precise cost–benefit analysis of different policies.

INTRODUCTION

In one of the most famous sentences in the history of property law, William Blackstone described property as "that sole and despotic dominion which one man claims and exercises over the external things of the world, in

total exclusion of the right of any other individual in the universe."[1] Importantly, in this statement, Blackstone did not advance an original conception of property. Nor was it a normative statement. Rather, Blackstone's comment was descriptive. It accurately reflected the property conception that prevailed at his time.

Although Blackstone's view is often ridiculed by contemporary property scholars for being too extreme, when he originally offered it, there was nothing remarkable about it; it was neither radical nor revolutionary. In fact, the root of the property conception that puts the right to exclude at its core goes back to Roman law. Roman property law was organized around the principle of a single owner with a full dominion over an asset or a resource.[2] Furthermore, as Yun-chien Chang and Henry Smith observe in their comparative study of civil and common law property, even though the two legal systems grew out of very different traditions and use different property concepts,

> ownership under the civil law and fee simple ownership of land in the common law system (and for the most part the respective notions of full ownership of personal property) coincide to a remarkable extent in their basic features: a possessory right to prevent invasions subject to qualifications such as for necessity, and supplemented by duties (for example, for lateral support or to shovel sidewalks).[3]

In the 1920s and 1930s, the primacy of the right to exclude to the understanding of property was challenged by the rise of the legal realism movement that endorsed and popularized the conception of property as a malleable "bundle-of-rights."[4] The realists advocated a non-monolithic, highly contextual and relational view of property and, chiefly, inveighed against the claim that property has any definitive conceptual characteristics. Yet, even notable legal realists such as Felix Cohen conceded that the right to exclude is indispensable to all property relationships.[5] Similarly, the Oxford

---

1 2 WILLIAM BLACKSTONE, COMMENTARIES *2.

2 *See* Juan Javier Del Granado, *The Genius of Roman Law from a Law and Economics Perspective*, 13 SAN DIEGO INT'L L.J. 301, 316 (2011) ("Roman property law typically gives a single property holder a bundle of rights with respect to everything in his domain, to the exclusion of the rest of the world.").

3 Yun-chien Chang & Henry E. Smith, *An Economic Analysis of Civil Versus Common Law Property*, 88 NOTRE DAME L. REV. 1, 3-4 (2012).

4 For a detailed discussion of the bundle-of-rights metaphor and its intellectual roots, see Jane B. Baron, *Rescuing the Bundle-of-Rights Metaphor in Property Law*, 82 U. CIN. L. REV. 57, 62-67 (2013). For a powerful criticism of the bundle-of-rights conception, see Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics?*, 111 YALE L.J. 357, 397-98 (2001), which concludes that the bundle-of-rights conception ignores the in rem dimension of property rights.

5 *See* Felix S. Cohen, *Dialogue on Private Property*, 9 RUTGERS L. REV. 357, 370-71 (1954) (stating that although the concept of private property may or may not involve the rights to use and sell the property, it indisputably involves a right to exclude others from doing something).

philosopher A.M. Honoré, who may have developed the definitive account of the "property bundle" by enumerating as many as eleven incidents that come under the definition of the term ownership,[6] is understood to have privileged the right to exclude.[7]

More importantly, the Supreme Court, while adopting the bundle of rights conception, has emphasized the centrality of the right to exclude in its rulings. For example, in *Kaiser Aetna v. United States*, the Supreme Court stated that the owner's right to exclude others from her land is "one of the most essential sticks in the bundle of rights that are commonly characterized as property."[8]

It is important to note at this point that the "bundle of rights" conception was not universally accepted. Many legal scholars[9] and philosophers[10] rejected it and, instead, steadfastly adhered to the traditional view that positioned exclusion at the center of our property system. Economists, too, have treated the right to exclude as the keystone right, explaining that it is essential to the efficient use of resources[11] and to the successful functioning of markets and the economy.[12]

Recently, the right to exclude has come under another scholarly attack due to the rise of the "progressive property movement." Pioneered by Gregory Alexander, Eduardo Peñalver, Joseph Singer, and Laura Underkuffler, and joined by many other prominent scholars, the progressive property movement

---

6 *See* A.M. Honoré, *Ownership* (describing the necessary ingredients in ownership, or, in other words, the bundle of rights that accompany property ownership), *in* THE NATURE AND PROCESS OF LAW 370, 370-75 (Patricia Smith ed., 1993).

7 *See* Lior Jacob Strahilevitz, *Information Asymmetries and the Rights to Exclude*, 104 MICH. L. REV. 1835, 1836 n.3 (2006) (suggesting that Honoré believed that "humans are hardwired to want to exclude others from their property").

8 444 U.S. 164, 176 (1979).

9 *See, e.g.*, Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 754 (1998) ("[P]roperty means the right to exclude others from valued resources, no more and no less."); *cf.* Shyamkrishna Balganesh, *Demystifying the* Right *to Exclude: Of Property, Inviolability and Automatic Injunctions*, 31 HARV. J.L. & PUB. POL'Y 593, 600 (2008) (emphasizing that, to be meaningful, the idea of property "must contain, at a minimum, some element of exclusion," but noting that the objective of the article "is not to argue that the right to exclude is *all* that there is in property").

10 *See, e.g.*, J.W. HARRIS, PROPERTY AND JUSTICE 13 (2003) (arguing that property should be conceived of as comprising items that are the "subject of direct trespassory protection"); J.E. PENNER, THE IDEA OF PROPERTY IN LAW 68 (1997) (asserting that property rights can be entirely explained using the concepts of exclusion and use).

11 *See* Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 356 (1967) (noting that an owner, by virtue of his power to exclude others, has "incentives to utilize resources more efficiently").

12 *See* RICHARD A. MUSGRAVE & PEGGY B. MUSGRAVE, PUBLIC FINANCE IN THEORY AND PRACTICE 48 (4th ed. 1984) ("The market can function only in a situation where the 'exclusion principle' applies, i.e., where A's consumption is made contingent on A's paying the price, while B, who does not pay, is excluded. Exchange cannot occur without property rights, and property rights require exclusion. Given such exclusion, the market can function as an auction system.").

presents a pluralistic view of property designed to accommodate and promote a myriad of incommensurable values.[13] While the view advanced by progressive property scholars has much in common with the writings of the legal realists of the 1920s and 1930s, there are important differences between the two movements. The focus of legal realism was mainly conceptual, while the ambition of the progressive property movement is unabashedly normative: it calls for the furtherance of such values as civil responsibility, environmental stewardship, life, human flourishing, autonomy, freedom, and "individual and social well-being."[14] Furthermore, the progressive property movement statement contains a call to change property law so as to "promote the ability of each person to obtain the material resources necessary for full social and political participation."[15] Yet, as Ezra Rosser explained, the gist of the progressive property concept is "to recognize more exceptions to the default rights of an owner to exclude, or put differently, to expand recognition of the public's interest in privately held property."[16] Accordingly, we refer to progressive property scholars as the "pro-access camp."

The alternative to progressive property can be dubbed exclusion essentialism, and it is central to the work of scholars such as Thomas Merrill and Henry Smith alone and together. Merrill and Smith do not value exclusion in its own right. Rather, they view it as an important organizing principle that enables parties to economize on information and transaction costs. The exclusion approach allows for delineation of clear rights and boundaries at a relatively low cost and as befits in rem rights that avail against the rest of the world. The economies achieved through exclusion enhance the value of resources and minimize the potential for conflict. Throughout this Article, we refer to champions of this approach as the "pro-exclusion camp."

Nowhere are the fault lines between the two camps clearer than in the context of the right to roam. The right to roam, also known as "everyman's right," permits the public at large to venture into private property for recreational purposes. In countries in which the right is recognized, private property owners are not allowed to bar members of the public from entering their land or from using it for recreation. The right to roam is of ancient provenance in the Nordic countries of Finland, Iceland, Sweden, and Norway, as well as in Baltic countries and Scotland. In 2000, it was codified in England and Wales, and, in 2003, it was enacted in Scotland. Celebrating this trend,

13 *See* Gregory S. Alexander, Eduardo M. Peñalver, Joseph William Singer & Laura S. Underkuffler, *A Statement of Progressive Property*, 94 CORNELL L. REV. 743, 744 (2009) (asserting that values implicated by property "cannot be adequately understood or analyzed through a single metric").

14 *Id.* at 743.

15 *Id.* at 744.

16 Ezra Rosser, *The Ambition and Transformative Potential of Progressive Property*, 101 CALIF. L. REV. 107, 145 (2013).

Greg Alexander argued that willingness to recognize the right to roam could be used as a measure of the degree of democratization in a given society.[17] Taking a markedly more guarded approach to the issue, Henry Smith cautioned that "giving the right-to-roam stick to a neighbor or to the public affects the value of the remaining property."[18]

Remarkably, this crucial scholarly debate that engulfed the world of property remains, to date, purely theoretical. The arguments of each camp are completely devoid of empirical support. But what is the value of the right to exclude? How sensitive is the right to exclude to incursions of the type sanctioned by the right to roam, and how much value, if any, stands to be lost if the right to roam is formalized?

In this Article, we exploit the passage of a right-to-roam statute in England and Wales in 2000 to analyze the net change in the price of real estate affected by this abridgement of the right to exclude. Comparing areas where there was likely to be little effect of the law with areas where the expected effect was greater, we find that property values declined substantially, and the effect appears to be causal. To the extent that access rights and exclusion rights are capitalized into real estate values, this suggests that the loss of exclusion rights dominates the increase in access rights. We believe this is the first formal econometric evaluation of these competing interests.

A cautionary note is in order here. Our findings should not be interpreted as a flat-out rejection of the right to roam or the general extent to which society values access relative to exclusion. Our goal was to measure the cost to property owners of increased access. It is possible, of course, that the benefits to the general public from increased access exceed this cost if the access rights of individuals outside of the local real estate market are highly valued but are not capitalized into local real estate values through, for example, increased tourism revenue and local employment effects. Also, a comprehensive cost–benefit analysis must take into account the subjective value to roamers, who can now engage in their beloved activity more freely and extensively, as well as the option value to non-roamers who know they could roam. These values are highly subjective and are thus often difficult to measure. For this reason, we focus on the cost side of the equation.

Granted, information about the loss to private property owners from legal interventions that compromise their exclusion rights does not furnish a complete basis for assessing new policies, but it does provide lawmakers with an important benchmark against which to measure the potential benefits that

17 *See generally* Gregory S. Alexander, *The Sporting Life: Democratic Culture and the Historical Origins of the Scottish Right to Roam*, 2016 U. ILL. L. REV. 321 (using the public's right to roam as a lens through which to examine the democratization of society in Scotland).

18 Henry E. Smith, *Property Is Not Just a Bundle of Rights*, 8 ECON J. WATCH 279, 286 (2011).

are supposed to accrue from different policies. It should be added that lawmaking in all areas tends to rely on incomplete information. Lawmakers typically have information about the costs of various measures, but the benefits can only be conjectured. Therefore, our study aims to put lawmaking in the property domain on equal footing with lawmaking in other domains.

Finally, our study is uniquely important for U.S. policymakers because, in the United States, private property enjoys constitutional protection that does not exist in European countries. Under extant takings jurisprudence, formalization of a right to roam would likely amount to a taking of a public easement that requires compensation under the Takings Clause of the Fifth Amendment.[19] No such issue arose in England or Wales. Our study suggests what the expected compensation would be if a right to roam were recognized.

Structurally, the remainder of the Article unfolds in four parts. In Part I, we discuss the place of the right to exclude in different traditions and schools of thought. In Part II, we explore the history and legal contours of the right to roam. In Part III, we lay out our empirical research design, discuss our results, and analyze the implications of our results to the debate about the centrality of the right to exclude. A short conclusion follows.

I. THE RIGHT TO EXCLUDE AND ITS PLACE IN PROPERTY LAW

Since antiquity, property law has been organized around three principal themes. The first was the res; property law was thought of as the legal field that deals with relationships between "person and thing."[20] The second theme was the in rem nature of property rights. Property rights were traditionally conceived as rights that avail against all other persons in the world.[21] The third and final theme was exclusion.[22] The concept of exclusion has come to define the essence of the relationship between rights-holders and the rest of the world.[23]

In the following paragraphs, we discuss the evolution of the concept of property in scholarly writings and court decisions. Naturally, our main focus

19 *See* Kaiser Aetna v. United States, 444 U.S. 164, 179-80 (1979) (holding that the creation of a public right of access to a private pond constitutes a taking under the Fifth Amendment and cannot be carried out without the payment of just compensation). For further discussion, see *infra* Part III.

20 *See* Henry E. Smith, *Property as the Law of Things*, 125 HARV. L. REV. 1691, 1691 (2012) (providing a history of the laws of property as one between people and things being conceptualized).

21 Merrill & Smith, *supra* note 4, at 358-59.

22 *See* Daniel B. Kelly, *The Right to Include*, 63 EMORY L.J. 857, 862 (2014) ("Historically, in analyzing property, many jurists have emphasized the role of exclusion.").

23 *See* Jeremy Waldron, *Property and Ownership* ("'Private property' refers to a kind of system that allocates particular objects like pieces of land to particular individuals to use and manage as they please, to the exclusion of others (even others who have a greater need for the resources) and to the exclusion also of any detailed control by society."), *in* THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed., 2016).

is the right to exclude. However, we refer to the two other traditional characteristics of property law: its focus on things and the in rem nature of the protection it bestows.

The right to exclude may be traced back to Roman law. Roman law did not develop a full-fledged definition of ownership.[24] It was not concerned with enumerating the elements of ownership, let alone ranking them. Instead, it maintained a practical, rather than theoretical or conceptual, focus.[25] As a result, the right to exclude was not explicitly recognized by Roman law.[26] Yet, its existence was "an implicit assumption, part of the substructure of Roman Property law."[27]

It was during the Enlightenment era, however, that the right to exclude rose to prominence. Hugo Grotius, for example, deemed the right to exclude as the centerpiece of ownership, explaining that "'ownership' connotes possession of something peculiarly one's own; that is to say, something belonging to a given party in such a way that it cannot be similarly possessed by any other party."[28] Samuel Pufendorf echoed the same sentiment when he wrote that dominion entailed the power "to dispose of things, which belong to us as our own, at our pleasure, and to keep all others from using them."[29] While Pufendorf highlighted the owner's abilities to dispose of her assets and use them as she pleases, both are undergirded by the owner's right to exclude. For it is the right to exclude that prevents others from interfering with the owner's use and power to transfer.

The right to exclude reached its zenith in the work of the English jurist William Blackstone. Blackstone famously elevated the right to exclude above all other rights, powers, and privileges associated with private property—he treated exclusion as the very essence of property when he described the right of property as "that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe."[30] In this oft-cited statement, Blackstone

24 *See* Peter Birks, *The Roman Law Concept of Dominium and the Idea of Absolute Ownership*, 1985 ACTA JURIDICA 1, 3 (noting that Roman jurists took the phenomenon of property ownership for granted, and thus did not attempt to define it); *see also* ALAN RODGER, OWNERS AND NEIGHBOURS IN ROMAN LAW 1 (1972).

25 *See* TAMAR FRANKEL, FIDUCIARY LAW 13 n.46 (2011) (noting that scholars of Roman law assumed that "Roman lawyers were more interested in the meaningful, real-world application of legal concepts and that they were generally reluctant to use definitions in civil law").

26 JOHN G. SPRANKLING, THE INTERNATIONAL LAW OF PROPERTY 307 (2014).

27 *Id*.

28 HUGO GROTIUS, DE JURE PRAEDAE COMMENTARIUS: COMMENTARY ON THE LAW OF PRIZE AND BOOTY 227 (Gwladys L. Williams & Walter H. Zeydel trans., Oxford Univ. Press 1950) (1868).

29 SAMUEL PUFENDORF, 2 DE JURE NATURAE ET GENTIUM LIBRI OCTO 533 (C.H. Oldfather et al. trans., Clarendon Press 1934) (1672).

30 2 BLACKSTONE, *supra* note 1, at *2.

turned the right to exclude into the defining characteristic of private property. To be fair to Blackstone, it must be noted that many scholars believe that Blackstone himself did not endorse the extreme view that is so widely attributed to him.[31] Yet, he became the flag bearer for the property as exclusion view.

It is important to note that Blackstone was not alone in regarding exclusion as the essence of ownership. Even jurists, who did not adopt an absolutist view of exclusion, agreed about its centrality to ownership. For example, Oliver Wendell Holmes wrote,

> But what are the rights of ownership? They are substantially the same as those incident to possession. Within the limits prescribed by policy, the owner is allowed to exercise his natural powers over the subject-matter uninterfered with, and is more or less protected in excluding other people from such interference. The owner is allowed to exclude all, and is accountable to no one but him.[32]

The opening salvo in the scholarly attack on the right to exclude came at the turn of the twentieth century with the writings of Wesley Newcomb Hohfeld. Interestingly, Hohfeld was not a specialized property scholar. Rather, he was a general theorist with a keen interest in legal concepts. As such, he sought to devise a comprehensive scheme of legal concepts. He maintained that all legal entitlements can be divided into four entitlements—claim rights, privileges, powers, and immunities—and their jural correlatives—duties, no-rights, liabilities, and disabilities.[33]

Hohfeld outright rejected the characterization of property as the law that governs relations between persons and things. According to Hohfeld, it made absolutely no sense to speak of rights against things.[34] Property rights, like all other rights, were about relations among persons.[35]

Furthermore, Hohfeld found no particular use for the classification of property rights as in rem rights. He viewed this classification as a mere

---

31 Carol M. Rose, *Canons of Property Talk, or, Blackstone's Anxiety*, 108 YALE L.J. 601 (1998); *see also* David B. Schorr, *How Blackstone Became a Blackstonian*, 10 THEORETICAL INQUIRIES L. 103, 105 (2009) (suggesting that "the anointment of Blackstone as the symbol of property absolutism is more than a quirk of intellectual history—it is perverse").

32 OLIVER WENDELL HOLMES, THE COMMON LAW 193 (Mark DeWolfe Howe ed., Belknap Press 1963) (1881).

33 Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 YALE L.J. 16, 30 (1913) (laying out this theory of legal relations in opposition to the overly simplistic model of "rights" and "duties").

34 *See id.* at 23-24 (insisting that all legal interests are incorporeal and thus only applied amongst people).

35 *Id.*

obfuscation that served no real purpose.[36] He suggested that so-called in rem rights are actually no more, or less, than aggregations of in personam rights.[37] He further opined that only when in rem rights are broken down into their component in personam rights can the precise content of a right and its variation from one duty bearer to another be perceived.[38]

Finally, Hohfeld maintained that it was impossible to reduce property relationships into a single exclusive feature—be it the right to exclude or any other right. In his view, a property right is a "complex aggregate of rights (or claims), privileges, powers, and immunities."[39] In Hohfeld's view, ownership, or the fee simple right, bestowed upon its holder the right to exclude certain people from entering her land; an indefinite number of privileges to enter, use, and abuse her land; the power to transfer her interest to third parties; and multiple immunities that prevent others from appropriating her set of entitlements.[40] Hohfeld further noted that "[b]ecause ownership is relational, no person can enjoy complete freedom to use, possess, enjoy, or transfer," and thus, the real question becomes how much freedom should be given to owners and what level of interference they should be expected to endure.[41] He also wished to emphasize the social and political aspects of court decisions relating to property.[42]

Hohfeld's conceptualization was seized upon by the legal realists, who recast it to produce the bundle of rights view of property.[43] The legal realism movement that peaked in the first half of the twentieth century was predicated on the notion that law should not be studied as a self-contained discipline. The legal realists sought to explore the social effects of legal institutions and, in particular, the distribution of power and wealth generated by various legal arrangements.[44] They were far less interested in the law in the books than in how the law operates on the ground. Accordingly, they

---

36 *See* Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L.J. 710, 720 (1917) ("[T]he expression 'right *in rem*' is all too frequently misconceived, and meanings attributed to it that could not fail to blur and befog legal thought and argument.").

37 *See id.* at 722-23 ("What is here insisted on—i.e., that all rights in rem are against persons,—is not to be regarded merely as a matter of taste or preference . . . . Logical consistency seems to demand such a conception, and nothing less than that."). Hohfeld preferred to call in rem rights "multital" rights and in personam rights "paucital" rights. *Id.* at 723.

38 *See id.* at 742-44 (arguing that distinct rights and their independence can be evicted by looking at property rights in this way).

39 *Id.* at 746.

40 *Id.*

41 Denise R. Johnson, *Reflections on the Bundle of Rights*, 32 VT. L. REV. 247, 251 (2007).

42 *Id.* at 252.

43 *See generally* Morris R. Cohen, *Property and Sovereignty*, 13 CORNELL L.Q. 8 (1927); *see also* Max Radin, *A Restatement of Hohfeld*, 51 HARV. L. REV. 1141, 1159-60 (1938) (discussing the right of alienation as a power incident to property ownership).

44 LAURA KALMAN, LEGAL REALISM AT YALE: 1927–1960 3 (1986).

saw little value in legal concepts and abstractions.[45] It is a bit paradoxical, therefore, that the legal realists drew their inspiration from Hohfeld, who was first and foremost a conceptualist.

The legal realists have embraced the Hohfeldian framework and, in particular, the idea that property was a state-backed institution that governed relations among people.[46] Furthermore, they set out to detail the effect of private property on third parties. In an influential article, Morris Cohen argued that private property is a form of sovereignty and that it is therefore "necessary to apply to the law of property all those considerations of social ethics and enlightened public policy which ought to be brought to the discussion of any just form of government."[47] Felix Cohen, another prominent figure in the realist movement,[48] railed against the notion that private property is a private institution. He maintained that since private property affects the rest of our society, it must be viewed as a social institution. Furthermore, the state plays a key role in the recognition and enforcement of private property rights.[49] Hence, private property cannot simply be justified by reference to the gains it produces for owners; rather, it is necessary to examine the effect of private property on nonowners as well as owners.[50]

The realists further deemphasized the role of the right to exclude, putting it on par with other rights and capacities. To them, property was a bundle of rights or sticks. Or, simply put, property was an aggregation of entitlements that the law granted to property owners.[51] There was no agreement among legal realists about the precise content of the rights in the bundle, nor did they converge on any specific enumeration. On the minimalist view, ownership

45 *See id.* at 4-5 (noting that legal realists "focused on the interrelationship between law and society and refused to believe that legal concepts and rules were the sole determinants of judicial decisions").

46 The view of "property as social relations" is widely attributed to Morris Cohen. *See* Stephen R. Munzer, *Property as Social Relations* (discussing Morris Cohen's contributions to legal realism in the law of property), *in* NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY 36, 38 (Stephen R. Munzer ed., 2001).

47 Cohen, *supra* note 43, at 14.

48 On the contribution of Felix Cohen to legal realism, see Martin P. Golding, *Realism and Functionalism in the Legal Thought of Felix S. Cohen*, 66 CORNELL L. REV. 1032, 1033 (1981), which notes that "Cohen's work is of special interest to anyone attempting to come to grips with the realist movement," and Joseph William Singer, *Legal Realism Now*, 76 CALIF. L. REV. 465, 470 n.6 (1988) (reviewing KALMAN, *supra* note 44), which describes Felix Cohen as a central figure in the legal realist movement.

49 *See* Cohen, *supra* note 5, at 360 (characterizing property law as "an attempt upon the part of the state . . . to give a systematized recognition . . . of these attitudes and desires on the part of individuals towards things").

50 *See id.* at 362-63 (conceptualizing property as primarily relational).

51 *See, e.g.*, United States v. Craft, 535 U.S. 274, 278 (2002) ("A common idiom describes property as a 'bundle of sticks'—a collection of individual rights which, in certain combinations, constitute property.").

conferred the rights to possess, use, exclude, and transfer property.[52] However, some scholars espoused a much broader view. Honoré, for example, listed as many as eleven incidents in his definition of ownership—the right to possess, the right to manage, the right to derive income, and several others.[53] The bundle of rights conception was, therefore, more of a framework for thinking about the meaning of property than a precise definition of the term.

More importantly, the bundle of rights conception offered an infinitely malleable view of property.[54] It allowed for the abridgement and even abrogation of the various rights in the bundle without any detraction from the status of the bundle, or what remained of it, as property. The contours and the content of the bundle were blurry and shifting. Nonetheless, some of the leaders of the movement viewed the right to exclude as the only right that was indispensable to the definition of property. Morris Cohen, for one, believed that, at the end of the day, property boiled down to a government-enforced right to exclude others.[55] Felix Cohen, too, echoed the same view when he concluded that "[p]rivate property . . . must at least involve a right to exclude others from doing something."[56]

The bundle of rights metaphor was adopted by the first Restatement of 1936[57] and even influenced the Supreme Court. In its takings jurisprudence, the Supreme Court repeatedly used the bundle of rights conception of property.[58] At the same time, however, the Supreme Court emphasized the importance of the right to exclude, calling it "one of the most essential sticks in the bundle."[59] More importantly, the Supreme Court granted special protection to private property owners against government incursions that

52 This view was adopted by the Supreme Court in *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435 (1982).

53 A.M. Honoré, *Ownership*, *in* OXFORD ESSAYS IN JURISPRUDENCE 107, 113 (A.G. Guest ed., 1961). It is important to note that Honoré's list also includes duties, such as the duty to prevent harm.

54 *See* Anna di Robilant, *Property: A Bundle of Sticks or a Tree?*, 66 VAND. L. REV. 869, 886 (2013) ("[A] fundamental intuition of the bundle of rights approach is that the bundle is malleable rather than having a prefixed and coherent structure or essence.").

55 *See* Cohen, *supra* note 43, at 12 ("The law does not guarantee me the physical or social ability of actually using what it calls mine . . . . [I]t may indirectly aid me by removing certain general hindrances to the enjoyment of property. But the law of property helps me directly only to exclude others from using the things which it assigns to me.").

56 Cohen, *supra* note 5, at 371.

57 *See* RESTATEMENT (FIRST) OF PROPERTY ch. 1, intro. note, § 5 (AM. LAW INST. 1936).

58 *See, e.g.*, Kaiser Aetna v. United States, 444 U.S. 164, 176 (1979).

59 *Id.*; *see also* Dolan v. City of Tigard, 512 U.S. 374, 393 (1994) (recognizing the fundamentalism of the right to exclude as characterized in *Kaiser*); Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1044 (1992) (referring to the right to exclude as "one of the most essential sticks" in the bundle of rights); Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 831 (1987) (same); Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 435 (1982) ("The power to exclude has traditionally been considered one of the most treasured strands in an owner's bundle of property rights.").

negate or compromise the right to exclude.[60] The Supreme Court has consistently and steadfastly adhered to the view that permanent physical occupations of private property invariably amount to a compensable taking under the Fifth Amendment, even if the amount taken is vanishingly small. For example, in *Loretto v. Teleprompter Manhattan CATV Corp.*, the Supreme Court ruled that New York legislation that compelled private property owners to allow cable companies to install a small cable box on buildings' roofs and run cables along the walls was an unconstitutional taking of property, since it compromised the buildings' owners' right to exclude.[61] Similarly, in *Kaiser Aetna v. United States*, the Supreme Court held that the imposition of a navigational servitude on private property could not be effected without compensation as that, too, infringed on the property owner's right to exclude.[62]

Over time, however, the bundle of rights view of property has begun to lose ground. In the last three decades, the scholarly pendulum has swung away from the bundle of rights conception and back toward the exclusion theory.[63] Scholars have argued that the bundle of rights theory led to the disintegration of property[64] and that, effectively, it was not a theory at all.[65] The dissatisfaction with the bundle of rights conceptualization revived theoretical interest in the right to exclude theory of property.

Nearly two decades ago, James Penner mounted a frontal attack on the Hohfeldian edifice. In rejecting the bundle of rights theory, Penner wrote that property is not "some bundled together aggregate or complex of norms, but a single, coherent right"—the right to exclusive use.[66] Penner's theory puts the premium on exclusive use of assets[67] and justifies the right to exclude as a means of securing this goal. He further argued that the correlative of the right to exclude is a single in rem duty, which applies to the rest of the world,

60 *See* Elizabeth M. Glazer, *Rule of (Out)law: Property's Contingent Right to Exclude*, 156 U. PA. L. REV. PENNUMBRA 331, 332 (2008) ("Despite Wesley Newcomb Hohfeld's and A.M. Honoré's efforts to bundle it with the rights to use, possess, and transfer property, the right to exclude has enjoyed an elevated status . . . ." (footnotes omitted)).

61 458 U.S. at 419.

62 444 U.S. at 179-80.

63 *See* HANOCH DAGAN, RECONSTRUCTING AMERICAN LEGAL REALISM AND RETHINKING PRIVATE LAW THEORY 164-65 (2013) (noting that "[a]fter decades in which the bundle-of-sticks picture . . . had been regarded as the conventional wisdom, several leading property scholars are again considering the right to exclude as the most defining feature of property").

64 Thomas C. Grey, *The Disintegration of Property*, *in* PROPERTY: NOMOS XXII 69 (J. Roland Pennock & John W. Chapman eds., 1980).

65 *See* Smith, *supra* note 20, at 1700 (claiming that "[p]roperty as a bundle of sticks could be a partial outlook, but [it] is not a theory").

66 J.E. Penner, *The "Bundle of Rights" Picture of Property*, 43 UCLA L. REV. 711, 754 (1996).

67 *See* PENNER, *supra* note 10, at 71 ("[T]he right to property is a right to exclude others from things which is grounded by the interest we have in the use of things." (emphasis omitted)).

to abstain from interfering with the property of others.[68] It bears emphasis that Penner does not oppose the sharing of assets; on the contrary, he actually views it as a laudable social goal intrinsic to the idea of property.[69] In his view, however, sharing should arise voluntarily and not be compelled by law.[70]

In another influential article, Tom Merrill argued that the right to exclude is the sine qua non of property, stating, "Give someone the right to exclude others from a valued resource, i.e., a resource that is scarce relative to the human demand for it, and you give them property. Deny someone the exclusion right and they do not have property."[71] In Merrill's view, all of the other rights and incidents that are associated with ownership, such as the right to possess, the right to use, and the power to transfer, emanate from the right to exclude.[72] Exclusion, in other words, guarantees all of the other rights, powers, privileges, and immunities of property owners. It is, therefore, a necessary and sufficient condition for the existence of property.

The renaissance of the exclusionary view is due in major part to the work of Henry Smith. In an elaborate body of work, Henry Smith, alone and with Tom Merrill, has sought to resurrect the three constituent elements of the traditional view of property—i.e., that property is the law of things, that it is organized around the idea of in rem rights, and that the right to exclude is the keystone right. Notably, Merrill and Smith have advanced a unifying utilitarian theory that justifies all three elements: the information costs theory.

The first step in doing so was to reinstate the in rem nature of property rights. Merrill and Smith have powerfully argued that the in rem nature of property rights is the key to understanding the field. As rights in rem that avail against the rest of the world, property rights oblige nonowners to inform themselves about their duties vis-à-vis property owners.[73] This process is obviously costly, and the more complex, idiosyncratic, and undecipherable

---

68 *See* Penner, *supra* note 66, at 807-08 (explaining that the duty is viable because individuals can recognize when property does not belong to them).

69 *See id.* at 745 ("[T]he ability to share one's things, or let others use them, is fundamental in the idea of property.").

70 *See id.* (describing how the reality of social interaction requires alienability to be voluntary).

71 Merrill, *supra* note 9, at 730.

72 *See id.* at 730-31 (describing the various rights associated with the right to exclude); *see also* Thomas W. Merrill, *The Property Prism*, 8 ECON J. WATCH 247, 249 (2011) (noting that "the essentialist thesis can be re-described as the claim that there must always be one stick in the bundle—e.g., the right to exclude").

73 *See* Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The* Numerus Clausus *Principle*, 110 YALE L.J. 1, 8 (2000) (suggesting that the in rem nature of property rights means that third parties must determine the attributes of these rights in order to avoid violating them or to acquire them from the present holders); Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law and Economics?*, 111 YALE L.J. 357, 359 (2001) (explaining that the notification feature of property "imposes an informational burden on large numbers of people").

property rights are, the higher the cost to third parties. Hence, in the context of property law, clarity and simplicity are of great importance.

In keeping with this insight, Henry Smith has insisted that property is, after all, "the law of things." For information cost reasons, it makes sense for property law to take advantage of the clear and well-defined boundaries of things, or assets, as a mechanism for communicating information to third parties as to their duties and liberties in their interactions with property owners.[74]

Similarly, Smith views exclusion as a cost-effective way, or strategy,[75] of conveying information to third parties. The exclusion right imposes on others a broad duty of forbearance that is clear and simple. Importantly, Smith does not consider exclusion a value, but rather "a rough first cut—and only that—at serving the purposes of property."[76] Merrill and Smith also argued that the legal duty to forebear from encroaching on others' assets is consistent with our moral intuitions,[77] which, in turn, further economizes on information costs. Therefore, from the perspective of information costs, it makes sense to construct property law around clearly defined assets and a broad duty to forebear.[78]

Other utilitarian justifications of the right to exclude concentrate on the efficient use of assets. In his seminal article, *Toward a Theory of Property Rights*, Demsetz famously wrote, "[A]n owner, by virtue of his power to exclude others, . . . [has] incentives to utilize resources more efficiently."[79] The assignment of a single owner with broad exclusionary powers, explained Demsetz, would ensure that the owner would bear the full marginal cost, as well as enjoy the full

74 *See* Smith, *supra* note 20, at 1709-10 (describing the societal impact of in rem rights and the benefits associated with a simplified system).

75 Smith repeatedly uses the term "exclusion strategy." *See* Smith, *supra* note 18, at 281-82 (describing the "exclusion strategy" as a means of "delegat[ing] to owners a choice of a range of uses" for resources by dividing the world into chunks and allowing each chunk's owner to determine who can access it); *see also* Henry E. Smith, *Exclusion Versus Governance: Two Strategies for Delineating Property Rights*, 31 J. LEGAL STUD. S453, S468-69 (2002) [hereinafter Smith, *Exclusion Versus Governance*] (discussing the use of the exclusion strategy to measure costs of a resource); Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 YALE L.J. 1742, 1745 (2007) (stating that property relies on the exclusion strategy to protect "rights-holders' interests in the use of resources indirectly, by using a simple signal for violations").

76 Smith, *supra* note 18, at 1705.

77 *See* Thomas W. Merrill & Henry E. Smith, *The Morality of Property*, 48 WM. & MARY L. REV. 1849, 1853-58 (2007) (arguing that morality is a source of support for our system of in rem duties of abstention).

78 *See* Smith, *supra* note 18, at 1693 (noting that "property defines things using an exclusion strategy of 'keep off' or 'don't touch'").

79 Demsetz, *supra* note 11, at 356.

marginal benefit, of her actions with respect to the resource.[80] Hence, broad exclusion power creates optimal incentives to use assets efficiently.[81]

Steven Shavell proffered a different efficiency-based justification for the right to exclude. Shavell astutely observed that in the absence of a right to exclude, possessors of assets would devote considerable resources to protect their possessions from predators. Such expenditures would be wasteful if the state, by enacting a right to exclude, protects rightful possessors more cost-effectively.[82]

There are also several non-utilitarian accounts that put the right to exclude at the heart of property law. The first non-utilitarian account dates back to Aristotle, who justified the right to exclude by reference to the concept of virtue.[83] Aristotle argued that only against a background norm of exclusion can owners signal their virtue by waiving their right to exclude.[84] In other words, a baseline of exclusion enables a separating equilibrium in which virtuous owners distinguish themselves from the general pool by forsaking their right to exclude.

Modern theorists justified the right to exclude on several other grounds. Jeremy Waldron, for example, justified the right to exclude by reference to the values of liberty and privacy. Waldron proposed that the right to exclude forms an important "realm of private freedom . . . where [one] can make decisions about what to do and how to do it, justifying these decisions if at all only to [one]self."[85] In a similar vein, Waldron argued that individuals "need a refuge from the general society of mankind[,] . . . a place where they

80 *See id.* Some context is in order here. Demsetz compared two prototypical property regimes: communal property and private property. He noted that in communal property regimes, each co-owner can externalize costs onto other co-owners by increasing her consumption of the underlying resource, be it land, water, or any other tangible asset. *Id.* at 354-55. This problem is inimical to communal property regimes since they allow each user to enjoy the marginal benefit of her actions, while bearing only a small fraction of their marginal cost, with the remainder of the cost externalized to others. *Id.* City parks provide a helpful illustration. Visitors to a city park often use the park for their enjoyment but then leave and impose the cleanup costs on the entire population of the city. Demsetz demonstrated that the adoption of a private property regime with a single owner can alleviate this problem by concentrating all of the costs and all of the benefits in the hands of one person. *Id.* at 356-57.

81 A notable exception is a case in which there are complementarities among different assets and transaction costs are high. We discuss this possibility below in Part II.

82 *See* STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 20 (2004). For a contrary view, see Abraham Bell & Gideon Parchomovsky, *The Case for Imperfect Enforcement of Property Rights*, 160 U. PA. L. REV. 1927 (2012), which argues against state enforcement of private property rights.

83 ARISTOTLE, THE POLITICS 26-27 (Stephen Everson ed., Cambridge Univ. Press 1988).

84 *See id.* at 27, ll. 12-14 ("No one, when men have all things in common, will any longer set an example of liberality or do any liberal action; for liberality consists in the use which is made of property.").

85 JEREMY WALDRON, THE RIGHT TO PRIVATE PROPERTY 295 (1988).

can be assured of being alone . . . or assured of the conditions of intimacy with others."[86]

Finally, Shyamkrishna Balganesh has constructed a normative theory that bases the right to exclude in the principle of inviolability.[87] The principle of inviolability "refers to the idea that certain entities (things and persons) are considered off-limits, by default to everyone."[88] According to Balganesh, it is well-established among anthropologists and sociologists that the idea of inviolability is embedded in all cultures and applies both to persons and things.[89] As far as its applicability to things is concerned, "the norm of inviolability requires individuals to stay away from things unless, through some socially accepted practice (such as first possession, or consumption), they have a legitimate claim over them."[90] Balganesh emphasizes that the norm of inviolability is entrenched in social practice and that it provides the best explanation for the centrality of the right to exclude to property law.[91]

In the last few years, however, a new challenge was leveled at the right to exclude owing to the emergence of the progressive property movement. In many important ways, the progressive property movement was born out of legal realism. Moreover, several key figures in the new movement were deeply influenced by the work of the legal realists.[92] The progressive property movement is predicated on the idea that property, like all other legal institutions, should advance human flourishing. In keeping with this idea, notable progressive property scholars, such as Greg Alexander, Hanoch Dagan, Eduardo Peñalver, Joseph Singer, Laura Underkuffler, and Jedediah

86 *Id.* at 296.

87 *See* Balganesh, *supra* note 9 (arguing that the right to exclude follows from a universally recognized obligation not to interfere with others' belongings).

88 *Id.* at 620.

89 *See id.* ("Sociologists and anthropologists have long argued that the [principle of inviolability] remains basic to all cultures, at all points in history, albeit to differing degrees and extents.").

90 *Id.* at 621.

91 *See id.* at 622-25.

92 *See, e.g.*, Joseph William Singer, *Property and Social Relations: From Title to Entitlement* (citing Frank Michelman to support the proposition that "[t]he very legitimacy of a property system depends on the effect of conferring property rights on individuals and allowing those individuals to assert those rights against others"), *in* PROPERTY AND VALUES: ALTERNATIVES TO PUBLIC AND PRIVATE OWNERSHIP 3, 12 (Charles Geisler & Gail Daneker eds., 2000); Joseph William Singer, *Property as the Law of Democracy*, 63 DUKE L.J. 1287, 1291-92 (2014) [hereinafter Singer, *Property as the Law of Democracy*] (praising Henry Smith for "conceptualizing property . . . as a framework for 'interactions of persons in society' as well as the foundation and infrastructure of private law"); *see also* HANOCH DAGAN, PROPERTY: VALUES AND INSTITUTIONS, at xvii (2011) ("This book offers an understanding of property as institutions, with its jurisprudential underpinnings grounded in legal realism . . . ."); Hanoch Dagan, *The Craft of Property*, 91 CALIF. L. REV. 1517, 1520 (2003) [hereinafter Dagan, *The Craft of Property*] (noting that legal realism underlies the conception of property as important default frameworks of interpersonal interactions).

Purdy,[93] maintain that with property come not only rights but also obligations. Legislators and courts, in designing property policy, must be mindful of the needs not only of property owners, but of society at large. Property rights must give way to broader social needs and values.

Furthermore, the progressive property movement has endorsed a pluralistic vision of property.[94] On this vision, property is supposed to advance a wide range of values, ranging from "individual interests, wants, needs, desires, and preferences" to "social interests, such as environmental stewardship, civic responsibility, and aggregate wealth," to general interests, such as "life and human flourishing, the protection of physical security, the ability to acquire knowledge and make choices, and the freedom to live one's life on one's own terms."[95] The movement's statement explicitly admits that these values are incommensurable and therefore cannot be "analyzed through a single metric" or "[r]educe[d] . . . to one common currency."[96]

In light of the pluralistic vision of the movement, it is not surprising that progressive property scholars are also unified in their rejection of the right to exclude as the essence or core of property.[97] The emergence of the progressive property movement has resurrected the bundle of rights conception of property and has put renewed pressure to scale back the right to exclude.[98]

---

93 *See* JEDEDIAH PURDY, THE MEANING OF PROPERTY 135 (2010) (describing how modern property regimes developed as part of a social vision); Jedediah Purdy, *A Freedom-Promoting Approach to Property: A Renewed Tradition for New Debates*, 72 U. CHI. L. REV. 1237, 1258-65 (2005) (proposing a property system that embraces individual freedom); Jedediah Purdy, *People as Resources: Recruitment and Reciprocity in the Freedom-Promoting Approach to Property*, 56 DUKE L.J. 1047, 1110-16 (2007) (arguing that property law can and should promote human freedom by making negotiation, rather than domination, the way in which people recruit others into their projects). Unlike the others listed, Purdy does not claim to be a part of the progressive property movement despite his critique of exclusion essentialism. *See* Gregory S. Alexander, *Pluralism and Property*, 80 FORDHAM L. REV. 1017, 1030-32 (2011) (understanding Purdy's views within the context of pluralistic values in property law).

94 *See* Gregory S. Alexander, Eduardo M. Peñalver, Joseph William Singer & Laura S. Underkuffler, *supra* note 13, at 743 ("Property implicates plural and incommensurable values.").

95 *Id.*

96 *Id.* at 744.

97 *See, e.g.*, Gregory S. Alexander, *The Complex Core of Property*, 94 CORNELL L. REV. 1063, 1064 (2009) (arguing that there is a "basic difficulty" in the idea that property "is exclusion, and everything else is a deviation from property"); Gregory S. Alexander, *The Social-Obligation Norm in American Property Law*, 94 CORNELL L. REV. 745, 801-04 (2009) (describing how beach access cases challenge the right to exclude conception of property); Dagan, *The Craft of Property*, *supra* note 92, at 1558-65 (proposing a "realist" view of property that runs contrary to the right to exclude conception); Eduardo M. Peñalver, *Land Virtues*, 94 CORNELL L. REV. 821, 875-76 (2009) (promoting "virtue theory" as the ideal framework for addressing property law); Singer, *Property as the Law of Democracy*, *supra* note 92, at 1319-24 (noting that "owners have rights, but they also have obligations" in a discussion of whether an owner has a right to leave a vacant lot empty when it could be profitably developed).

98 *See* Ezra Rosser, *The Ambition and Transformative Potential of Progressive Property*, 101 CALIF. L. REV. 107, 145 (2013) (suggesting that the core ambition of the progressive property movement is

As one leading commentator astutely observed, this is not a coincidence.[99] The right to exclude lies at the heart of the debate between exclusion theorists and progressive property scholars because of the constitutional protection granted to private property under the Takings Clause of the Fifth Amendment.[100] If courts accept the proposition that the right to exclude is the sine qua non of private property and grant it special protection, it would significantly undermine the ability of the state to advance the other goals of the progressive property movement. Any incursion on the right to exclude might require the government to pay just compensation to the affected property owners. Conversely, if courts accept the view that the right to exclude is merely another stick in the property bundle that may be removed without any special consequences, it would give the state the liberty to adopt policies that curb owners' right to exclude with impunity.[101]

And so, today, the world of property theorists is deeply divided over the centrality of the right to exclude to the definition of property.[102] In the next Part, we will discuss the implications of the scholarly debate about the right to exclude in the context of the right to roam. We focus on the right to roam because it epitomizes many of the values endorsed by progressive property theorists and may even be justified from a purely utilitarian perspective. Furthermore, the right to roam, as presently adopted in several foreign legal systems, represents a relatively minimal incursion on property owners' right to exclude.

II. THE RIGHT TO ROAM

Nowhere does the case of the progressive property movement seem more compelling than in the context of the right to roam. The right to roam empowers the general public to hike and engage in minimally intrusive recreational activities on qualifying private properties. Importantly for our purposes, it provides a unique opportunity to examine a concrete example that involves the theoretical disagreement between pro-access and pro-exclusion

"to recognize more exceptions to the default rights of an owner to exclude, or put differently, to expand recognition of the public's interest in privately held property").

99 *See* Merrill, *supra* note 72, at 248 ("The Realists and their modern heirs embraced the bundle because the idea of moving sticks in and out of bundles suggests the futility of giving significant constitutional protection to property.").

100 *See* U.S. CONST. amend. V ("[N]or shall private property be taken for public use, without just compensation.").

101 *See* Merrill, *supra* note 72, at 248 (explaining how the bundle metaphor could be used to either encourage or discourage payment of compensation under the Takings Clause).

102 *See* Lee Anne Fennell, *The Problem of Resource Access*, 126 HARV. L. REV. 1471, 1477 (2013) (observing that "[p]roperty theory today is alive with debate on core questions of entitlement design: whether property rules or liability rules should dominate, whether an exclusion- or thing-based vision of property should trump the bundle-of-rights metaphor, whether fixed tenure menus aid or impede efficiency, and so on").

scholars. Despite the strong rhetoric sometimes employed by scholars from both sides,[103] the disagreement between the two camps is a matter of degree, not kind. Pro-access, or progressive property, scholars do not deny the importance of the right to exclude to property; rather, they argue that it must sometimes give way to other important values. Pro-exclusion scholars no longer maintain—and with the possible exception of Blackstone, never did maintain—that the right to exclude is absolute and, by and large, acknowledge the need to scale it back under appropriate circumstances.[104] The right to roam provides us a test case through the study of which we can contextualize the grand debate that engulfed the property world.[105]

Several characteristics make the right to roam an especially interesting opportunity for clarifying the differences in the views of pro-access scholars and pro-exclusion scholars. First, the right to roam implicates a relatively minimal intrusion on owners' right to exclude. As we will show, the right to roam, as it was adopted in all countries in which it exists, does not deprive property owners of land and is carefully crafted to ensure that hikers do not interfere with owners' possession or use rights. Second, there are prima facie efficiency and justice reasons to recognize the right to roam. It is often necessary to gain access to multiple parcels to complete a certain hike or trail.

---

103 *See* Merrill, *supra* note 9, at 730 ("Give someone the right to exclude others from a valued resource . . . and you give them property. Deny someone the exclusion right and they do not have property."); Penner, *supra* note 66, at 714 ("'Property is a bundle of rights' is little more than a slogan. . . . By 'slogan' I mean an expression that conjures up an image, but which does not represent any clear thesis or set of propositions. But like all good slogans, it rhetorically assuages the unease that results from our knowing there are real problems which, if plainly articulated, would demand serious consideration."); Smith, *supra* note 20, at 1692 ("[T]he extreme realist picture . . . is myopic, inflexible, and ultimately unworkable . . . ."); *see also* Eric R. Claeys, *Virtue and Rights in American Property Law*, 94 CORNELL L. REV. 889, 890 (2009) ("*The Social-Obligation Norm* and *Land Virtues* may encourage lawyers and scholars to leap out of an economic frying pan into a political-philosophy fire."); Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809, 815 (1935) ("The circularity of legal reasoning in the whole field of unfair competition is veiled by the 'thingification' of *property*."); Adam Mossoff, *The False Promise of the Right to Exclude*, 8 ECON J. WATCH 255, 256 (2011) ("[L]awyers and economists should be wary of the theoretical promise of practical determinacy that is offered by the exclusion conception of property."); Singer, *supra* note 92, at 1299 ("Information costs help us manage in the world, but they are neither the only thing we care about nor the most important."). For a neat overview of the different theoretical positions in this grand debate, see John A. Lovett, *Progressive Property in Action: The Land Reform (Scotland) Act 2003*, 89 NEB. L. REV. 739, 743 (2011), which calls 2000–2009 the decade of "the noughties" and characterizes the scholarly discussion of property law as "an on-going, high level debate between two rival camps of property theorists about the fundamental structure and values of property law in general and over the nature and importance of the right to exclude in particular."

104 *See* Smith, *Exclusion Versus Governance*, *supra* note 75, at S454 (noting that rights "fall on a spectrum between the poles of exclusion and governance").

105 *See* Lovett, *supra* note 103, at 740 ("For more than a decade two rival camps of property theorists have made powerful, often intricate, and seemingly irreconcilable claims about the function and normative value of exclusion rules in property law.").

Hence, if members of the public were to try to obtain the right through voluntary market transactions, they would invariably run into the twin problems of high transaction costs and strategic holdouts (owners who would deny them permission in order to extract as much of a bargaining surplus as possible). These twin problems are well-known from the takings literature on eminent domain and, in fact, constitute the standard justification for recognizing the power of eminent domain in the government. The right to roam is also appealing on distributive justice grounds as it benefits the public at large at the expense of potentially affluent property owners by making the latter's lots subject to roaming rights. Third, and perhaps most important, the right to roam was enacted, among other places, in England, Wales, and Scotland, common law countries whose property history and roots are similar to those of the United States.[106]

In the remainder of this Part, we discuss the significance of the right to roam to property theory and elaborate on the efficiency and justice reasons that may be marshaled in support of its adoption. We then outline the legal characteristics of the right to roam as it was enacted in various countries. Because our empirical analysis is based on data from England and Wales, we focus on the legal attributes of the right to roam in these two countries.

A. *Theory*

From a theoretical perspective, the right to roam provides a powerful demonstration of the possibilities embedded in a use-based model of property, namely a model that seeks to maximize aggregate use of assets independently of their boundaries. For this reason and others, it has attracted the attention of progressive property scholars. Progressive property scholars have used the right to roam as a prime example of how the vision and ideals of their movement can work in practice. For example, John Lovett described the enactment of the right to roam in Scotland as "[p]rogressive [p]roperty in [a]ction"[107] and proposed that it can serve as a blueprint for legal reforms in the United States.[108] At the same time, the recognition of roaming rights invariably necessitates imposing limitations on certain owners' right to exclude. Therefore, the right to roam embodies an inevitable tradeoff between exclusion and access.

---

106 *See id.* at 742 ("[T]he [Land Reform (Scotland) Act] actually replaces the traditionally robust, modular, ex ante presumption in favor of the right to exclude with a surprisingly simple, but also robust, ex ante presumption in favor of responsible access." (emphasis omitted)).

107 *See generally id*.

108 *See id.* at 742 (arguing that the Land Reform (Scotland) Act "shows us something important about what is possible in property law design").

As important, one can make a prima facie case for adopting a right to roam on both efficiency and distributive justice grounds. Consider the efficiency justification first. Although there is broad consensus among economists and law and economics scholars about the importance of the right to exclude in incentivizing owners to make optimal decisions with respect to their own assets, there is also universal recognition that strong exclusion powers can thwart socially desirable enterprises involving multiple parcels of land. To see this, assume that an entrepreneur (be it the government or a private actor) wishes to construct a new highway or lay tracks for a high speed railroad. Under all legal systems that respect property owners' right to exclude, the execution of the project would require the entrepreneur to secure consent from all relevant owners. Yet, in many cases, doing so might prove prohibitive. First, the need to engage multiple rights-holders in negotiations requires expenditure of significant resources, and the cost rises as the number of rights-holders increases. Second, each rights-holder has an incentive to hold out in the hope of extracting the lion's share of the contractual surplus from the entrepreneur. Since the last remaining owner has the most leverage in negotiating with the entrepreneur, as the fate of the project hinges on her consent, all owners are likely to refuse to tender early.[109] The need to overcome the problems of high transaction costs and strategic holdouts is the standard justification for government intervention in land use planning, in general, and the government's ability to condemn private property by eminent domain, in particular.[110]

Furthermore, Michael Heller, both alone and with Rebecca Eisenberg, has shown that the dispersion of veto rights among multiple rights-holders often leads to underutilization of assets.[111] It can also block the development of projects that involve complementarities among different assets.[112] Roaming

---

109 *See* Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1106-07 (1972) (discussing this holdout problem in the context of property rule legal systems).

110 *See id.* (arguing that eminent domain solves the holdout problem by using government power to set an objectively reasonable transaction price); *see also* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 22 (1972) (noting that one purpose of eminent domain is to prevent holdouts from obtaining monopolies); Abraham Bell, *Private Takings*, 76 U. CHI. L. REV. 517, 529-31 (2009) (arguing that eminent domain "provides the solution to the strategic difficulties raised by . . . holdout[s]"); Richard A. Epstein, *Holdouts, Externalities, and the Single Owner: One More Salute to Ronald Coase*, 36 J.L. & ECON. 553, 572 (1993) (characterizing the government's power of eminent domain as "typically to prevent holdouts").

111 *See* Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621, 677 (1998) (noting that a "tragedy of the anticommons can occur when too many individuals have rights of exclusion in a scarce resource" (emphasis omitted)).

112 *See* MICHAEL HELLER, THE GRIDLOCK ECONOMY 1 (2008) (addressing this problem in the broader corporate context); Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter*

rights are a case in point. Hiking trails, very much like roads, typically span across multiple parcels. Moreover, there are obvious complementarities among the different parcels over which a trail passes, which are best evidenced by beach access cases.[113] The omission of a few lots—and in some cases, even a single lot—from a trail may critically undermine its utility to the public. Further, outdoor activities are characterized by a high degree of spontaneity. Hence, the higher the degree of freedom the public enjoys, the more the public values the right to roam. Consequently, it is impractical to expect that roaming rights will arise voluntarily via private transactions between landowners and hikers. In light of the high number of parties involved (both hikers and landowners) and their wide range of preferences, attempts to devise roaming rights privately are likely to collapse under the weight of transaction costs. For all of these reasons, an elaborate scheme of roaming rights can generally only be established by the government.

The right to roam may also be justified on distributive justice grounds. The formalization of a right to roam works to transfer wealth from individual property owners to the public at large. To the extent that property ownership is concentrated among those with higher than average wealth and that hikers will tend to be of average wealth as they come from all corners of our society, the recognition of a public right of access benefits the average citizen at the expense of those who are generally better off. The Scottish experience provides a vivid illustration of this effect. By some estimates, in 1995, 57.8% of the land of Scotland was owned by only 1411 owners.[114] Furthermore, many of the largest estates in Scotland belong to absentee owners from other countries, who visit their vast properties only periodically.[115]

Some property scholars argue that the right to roam is especially appealing from a distributive perspective. In defending courts' decisions to grant public access to private beaches,[116] Greg Alexander writes that public access to beaches is "a valuable form of recreation" and that "[r]ecreation is not a luxury but a necessity . . . [,] an important aspect of the capabilities of

Innovation? The Anticommons in Biomedical Research, 280 SCIENCE 698, 699 (1998) (demonstrating this problem in the context of scientific research).

113 *See, e.g.*, Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 828-29 (1987) (addressing state regulations on a proposed house on beachfront property that would block the public's view of the coastline).

114 ANDY WIGHTMAN, WHO OWNS SCOTLAND 142-43, 158 tbl.3 (1996).

115 *See* Lovett, *supra* note 103, at 772 (noting "[t]he increasingly frequent phenomena of absentee ownership" in Scotland).

116 *See, e.g.*, Raleigh Ave. Beach Ass'n v. Atlantis Beach Club, Inc., 879 A.2d 112, 124 (N.J. 2005) (holding that a portion of a beach club's sands had to be available for public use and travel); Matthews v. Bay Head Improvement Ass'n, 471 A.2d 355, 368-69 (N.J. 1984) (holding that allowing membership in a beach association supported public beach access).

both life and sociability."[117] He proceeds to explain that there is "growing medical evidence indicating that recreation and relaxation contribute importantly to good health"[118] and laments the fact that "some of the very groups who need recreation the most often do not, as a practical matter, have access to it."[119] As for sociability, Alexander postulates that "[a]s a good, sociability encompasses subsidiary goods such as friendship and social participation"—both of which are enhanced by public access to beaches.[120] Of course, Alexander's arguments apply with equal force to access to other open spaces and natural amenities, highlighting the powerful distributional case for adopting a broad right to roam.

B. *Law*

The debate about the right to roam is not merely theoretical. Several European countries, including some that come from the same property tradition as the United States, recognize the right to roam. The European experience with the right to roam can be viewed as a natural experiment from which American scholars and policymakers alike can draw important lessons as to the optimal design of the right to roam and the best way to implement it. In the following paragraphs, we provide a comparative review of the right to roam as it exists in various European countries. We put special emphasis on the design of the right to roam in England and Wales as we use data from these countries to examine the effect of the right on property values in Part III.

In feudal times, English commoners enjoyed a plethora of access and use rights to lands that were held by feudal lords. These rights were largely extinguished by the enclosure movement in the seventeenth and especially eighteenth centuries via private agreements and legislation.[121] As a consequence, the English land system moved from a pragmatic model with multiple rights-holders in every lot to a model of exclusive ownership.[122] At the turn of the twentieth century, the general public in England had no access rights to private property, except in those cases where permission was secured from the relevant owner or granted specifically by statute.[123]

---

117 Gregory S. Alexander, *Ownership and Obligations: The Human Flourishing Theory of Property*, 43 H.K.L.J. 451, 460 (2013).

118 *Id.*

119 *Id.*

120 *Id.* at 461.

121 *See* Stuart Banner, *Transitions Between Property Regimes*, 31 J. LEGAL STUD. S359, S366 (2002) (describing enclosure as a "massive reorganization of property rights").

122 *See id.*

123 *See* ANGELA SYDENHAM, PUBLIC RIGHTS OF WAY AND ACCESS TO LAND 196-97 (4th ed. 2010) (discussing punishments for obstruction of highways and including gates, fences, and wires as forms of obstruction); Jerry L. Anderson, *Britain's Right to Roam: Redefining the Landowner's Bundle*

The first harbinger of change was the Law of Property Act of 1925, which recognized a public right of access to common land in certain urban areas in England and South Wales for purposes of "air and exercise."[124] The next statutory intervention came after World War II, when the Parliament enacted the National Parks and Access to the Countryside Act 1949 (NPACA). The Act promoted open access in two principal ways. First, it encouraged landlords to enter agreements that granted the public access rights over private lands with local authorities.[125] Second, it instructed local authorities to survey and map all public rights of way in order to inform the public of its rights.[126]

The most important and comprehensive reform came half a century later with the passage of the Countryside and Rights of Way Act 2000.[127] The Act granted the general public in England and Wales a right of access to most "open" areas in England and Wales.[128] The legislation of the Act was followed by an extensive effort to define and map the areas to which the right applied. The mapping process was completed on October 31, 2005, at a cost of £69 million to the British public.[129] The legislative scheme in England and Wales recognizes a right to roam that applies to three main categories of land:[130] (1) mapped open country; (2) mountain land; and (3) coastal land.[131]

The first category of mapped open country covers designated areas as they appear on a conclusive map issued by the "appropriate countryside body" as "open country."[132] "Open country," in turn, is defined as land that "(a) appears to the appropriate countryside body to consist wholly or predominantly of

of Sticks, 19 GEO. INT'L ENVTL. L. REV. 375, 394 (2007) ("In the end, the right to roam the countryside was not recognized as important enough to justify a common law right. As a result lands that for centuries had been open to the public for wandering were shut off by the landowner . . . .").

124 Law of Property Act 1925, 15 & 16 Geo. 5 c. 20, § 193 (Eng. & Wales).

125 Lovett, *supra* note 103, at 769.

126 *Id.*

127 Countryside and Rights of Way Act 2000, c. 37 (Eng. & Wales). The formalization of a similar right in Scotland in 2003 gave walkers access to almost *all* land as long as they behaved responsibly. *See* Lovett, *supra* note 103, at 777-78 (contrasting the Scottish legislation with the British statute); *What Is the Right to Roam?*, RAMBLERS ASS'N, http://www.ramblers.org.uk/advice/paths-and-access/england/what-is-the-right-to-roam.aspx [https://perma.cc/F4UV-XZCS] (providing a summary of right to roam laws in Scotland, England, and Wales).

128 Countryside and Rights of Way Act 2000, c. 37, § 2 (Eng. & Wales).

129 SELECT COMMITTEE OF PUBLIC ACCOUNTS, THIRTY-SECOND REPORT: THE RIGHT OF ACCESS TO OPEN COUNTRYSIDE, 2006-7, HC 91, ¶ 11 (UK).

130 There are also two much smaller categories to which the right applies: "registered common land"—i.e., land that was specifically designated as such by the Commons Registration Act 1965—and "dedicated land"—i.e., land that was dedicated to the public by private owners as access land. Lovett, *supra* note 103, at 781.

131 The Act also gave power to the Secretary of State for England and the National Assembly for Wales to extend the right to coastal areas, conditioned on parliamentary approval. Acting on this power, Parliament enacted the Marine and Coastal Access Act 2009, c. 23, §§ 296, 303 (Eng. & Wales).

132 Countryside and Rights of Way Act 2000, c. 37, § 1(1)(a) (Eng. & Wales).

mountain, moor, heath or down, and (b) is not registered common land."[133] The statutory definition excludes areas that were determined by the appropriate countryside body to be "improved or semi-improved grassland."[134] The second category, mountain land, refers to mountains of 1968 feet (600 meters) or higher.[135] The third category, "coastal land," was added in 2009 with the enactment of the Marine and Coastal Access Act 2009 and extended the right to roam to a "coastal margin"[136] in order to form a trail of over 2700 miles along the English coast.[137] Overall, the public right of access covers 3.4 million acres (between 8% and 12% of the total amount of land) in some of the best hiking areas in England and Wales.[138]

The right to roam is subject to several limitations. First, the right does not apply to freshwater bodies such as rivers, streams, and lakes. Second, it excludes cultivated agricultural areas.[139] Third, the Act specifically exempts sports fields, such as golf courses, race courses, and aerodromes.[140] Fourth, the Act provides that the right does not extend to land "within 20 metres [(60 feet)] of a dwelling," as well as parks and gardens, thereby creating a "privacy zone" for landowners in the ground adjacent to their homes.[141] Fifth, the right to roam in England and Wales permits only access on foot for recreational purposes.[142] Other recreational activities such as cycling, horseback riding, camping, hunting, boating, bathing, or even lighting campfires are forbidden.[143] In addition, hikers are required to avoid causing property damage and to respect walls, gates, and fences.[144] They are also expected to protect plants and animals.[145]

---

133 *Id.* § 1(2).

134 *Id.*

135 *Id.*

136 Marine and Coastal Access Act 2009, c. 23, §§ 296, 303 (Eng. & Wales). The process by which the exact location of the coastal margin is to be determined is expected to take years. For this reason, we could not include it in our study.

137 *See* KATY OXFORD, NAT'L ASSEMBLY FOR WALES RESEARCH SERV., COUNTRYSIDE ACCESS IN THE UK: A REVIEW OF ASSOCIATED LEGISLATION AND POLICY § 3.3.5 (2014) (describing the England Coast Path as "the longest of the National Trails in England at 4,400 km").

138 *See* The Ramblers Ass'n, The "Right to Roam" in England and Wales 1 (2007), http://www.ramblers.org.uk/~/media/Files/Go%20walking/AccessFactSheet-FS8 [https://perma.cc/KA2S-9HPB] (describing the 3.4 million acres to which the law applies as "some of England's best walking areas").

139 Countryside and Rights of Way Act 2000, c. 37, sch. 1, pt. 1, para. 1 (Eng. & Wales).

140 *Id.* at sch. 1, pt. 1, para. 7.

141 *Id.* at sch. 1, pt. 1, paras. 3–4.

142 *See id.* at sch. 2, para. 1(a) (providing that the Act does not entitle a person to be on land if he is driving or riding a vehicle).

143 *See id.* at sch. 2, para. 1.

144 *See id.*

145 *Id.* at sch. 2, paras. 1(f), 1(*l*).

Landowners, for their part, are obliged to give the public free access to their properties if they are subject to the right to roam. In keeping with this obligation, owners must ensure that all rights of way on their properties are clear and must not post or maintain any misleading notices on, near, or on the way to access land.[146] Private landowners may restrict or bar access altogether for up to twenty-eight days a year for any reason.[147] However, any restriction in excess of that period must be justified and requires special approval from the authorities, which may be granted for reasons of land management, conservation, or fire prevention.[148]

Under the Act, landowners are exempt from tort liability for harm to hikers caused by natural features of the property or resulting from an improper use of gates, fences, or walls.[149] However, landowners are liable for harms resulting from the materialization of risks they have intentionally or recklessly created.[150] For example, if an owner releases her cattle to graze on the property and one cow attacks a visitor, the owner would be held liable for the injury sustained by the visitor.

It may surprise American readers, but the scope of the right to roam in England and Wales is modest relative to the scope of the right in other countries. In Scotland, the right to roam, as established by the Land Reform (Scotland) Act 2003 (LRSA), covers almost the entire territory of the country.[151] Furthermore, Scottish law contains fewer exclusions and exemptions. For example, in Scotland, the right to roam also applies to grassy sports fields when they are not in active use.[152] More significantly, the range of activities permitted under Scottish law is much broader than the range permitted in England and Wales. The definition of the right to roam in Scotland encompasses such activities as organized educational tours,[153] orienteering, bicycle riding, rock climbing, swimming, and camping.[154] Finally, Scottish law does not demarcate a clear "privacy zone" for landowners (as the English law does). Instead, it employs a reasonableness standard, requiring hikers to provide owners with a reasonable measure of privacy and refrain from

146 *Id.* § 14(1).

147 *Id.* § 22(1)–(4).

148 *Id.* §§ 24–26.

149 *Id.* § 13(2).

150 *Id.*

151 *See* Lovett, *supra* note 103, at 777-78 (comparing LRSA coverage of "almost all land and in-land water in Scotland" to the small percentage of English land covered by Countryside and Rights of Way Act).

152 Land Reform (Scotland) Act 2003, (ASP 2) § 7(7)(a)–(b).

153 *See id.* § 1(3)(b) (specifying that the access rights created by the Act may be exercised for the purposes of carrying on a "relevant educational activity").

154 *See* Lovett, *supra* note 103, at 787 (describing the extensive activities permitted under the LRSA).

unreasonably disturbing them.[155] This means that in Scotland, private landowners can exclude visitors only to the extent necessary to give them a reasonable degree of privacy in their *homes*. The conscious decision by the Scottish legislature to avoid bright-line rules in designing the right to roam and to build the statutory scheme on the standard of "reasonable access" created uncertainty as to the precise scope of the right and has necessitated judicial intervention in some cases.[156]

Some Scandinavian countries went even further than Scotland in recognizing public roaming rights. In Scandinavia, the right to roam has ancient historic roots and is widely known as "everyman's right."[157] In Norway, for example, the right to roam encompasses recreational activities such as swimming, sailing, canoeing, and rowing.[158] Hikers are allowed, in principle, to pick up berries, flowers, and mushrooms for *in situ* consumption.[159] Moreover, the right to roam grants the public the right to pitch tents and camp for up to two days without seeking permission from the owner, as long as tents are positioned at least 500 feet away from the nearest house and the privacy of landowners is respected.[160] Campers are allowed to light campfires between mid-April and mid-September.[161] As far as their duties are concerned, in residential areas, hikers must keep a distance of 500 feet from houses and other structures.[162] Visitors must also refrain from littering, causing property damage, and disturbing farm animals and wildlife.[163] Moreover, the right to roam does not cover freshwater fishing.[164]

The success of the right to roam in Europe has prompted calls to implement a similar arrangement in the United States. However, no one, so far, has paused to ask the important question: what would be the effect of doing so on property values? In the next Part, we set out to fill this void, in

---

155 Land Reform (Scotland) Act 2003, (ASP 2) § 6(1)(b)(iv).

156 *See* Lovett, *supra* note 103, at 790 (noting that it is "not surprising" that the courts were left to "draw . . . boundaries that the Scottish Parliament declined to draw").

157 *See, e.g.*, Larissa Katz, *Exclusion and Exclusivity in Property Law*, 58 U. TORONTO L.J. 275, 298-99 (2008) (discussing the Scandinavian principle of *Allemansratt*); Barbro Plogander, *Modernizing Everyman's Right to Roam in Sweden*, EPOCH TIMES (Aug. 9, 2012), http://printarchive.epochtimes.com/a1/en/us/nyc/2012/08-Aug/09/A04_EET20120809-NY-US.pdf [https://perma.cc/3X4M-PM2Z] (describing the Swedish "everyman's right" as the "right to public access to the wilderness [that] dates back centuries"); *see also Freedom to Roam*, WIKIPEDIA, https://en.wikipedia.org/wiki/Freedom_to_roam#In_the_Nordic_countries [https://perma.cc/RYA9-TGMP] (last updated Feb. 4, 2017).

158 NORWEGIAN ENV'T AGENCY, M-86, RIGHT TO ROAM 2 (2013).

159 *Id.*

160 *Id.* at 6.

161 *Id.* at 3.

162 *Id.*

163 *Id.* at 3, 14.

164 *Id.* at 10.

the hope of introducing an empirical dimension into the scholarly debates about the right to roam and the right to exclude.

III. THE EFFECT OF THE RIGHT TO ROAM ON HOUSING PRICES

Laws serve as amenities that affect the enjoyment of one's property. As such, it is possible to estimate the value that individuals place on a law by examining how property prices change when a law is passed. This approach to estimating the value of a law is advocated by Anup Malani, who suggests that changes in real estate value provide a relatively direct proxy for individual utility (which is, of course, not directly measurable).[165]

In the context of the right to roam, property owners and interested buyers implicitly calculate the net effect of increased access to natural features provided by the right plus any loss they expect to incur from having to let others cross their land. If buyers and owners believe the value of increased access outweighs the lost value arising from the abridgement of their exclusion right, real estate prices will increase, all other things being equal. If, instead, the loss exceeds the gain, real estate prices will decline (again, all other things being equal).

A. *Research Design*

To examine these hypotheses econometrically, it is necessary to examine the change in property values after the right to roam law is passed relative to the preexisting baseline. This before/after element of the research design accounts for any constant underlying heterogeneity in property values that may otherwise obscure the effect of any law change. For example, it is perhaps the case that properties near hiking trails are generally more valuable than those that lie far from such trails. If the right to roam law affects such lands disproportionately, and this preexisting premium is not accounted for, it may appear as though the right to roam law is associated with higher property values when, in fact, it is hiking trails that create the price premium.

Likewise, it is important to be able to compare the values of properties that are differentially exposed to the right to roam law (e.g., compare properties where the law is in effect with properties in a jurisdiction where the law is not in effect). This treatment/control element of the research design is meant to account for any background trend in home values that is unrelated to the passage of the law. Failure to account for this would have the potential to confound the effect of the law with other changes in property values. For

165 *See generally* Anup Malani, *Valuing Laws as Local Amenities,* 121 HARV. L. REV. 1273 (2008) (proposing a method for evaluating laws based on the extent to which they raise housing prices or the value of residential land).

example, if property values are going up over time everywhere (and, to cause maximum econometric heartache, are doing so in a way that is not easily captured by a simple trend variable), it might appear as though the right to roam law is associated with an increase in property values when, actually, the values would have risen even in the absence of the passage of the law. Including the control group observations (for which the law change is not occurring) allows the researcher to net out these comparable background trends, as long as treatment and control groups are trending in a parallel fashion. In principle, such a design will allow us to isolate the effect of the passage of the right to roam law on real estate prices independent of any preexisting heterogeneity in housing prices and any background trends.

In practice, however, things can go awry. First, there is often no data spanning the before and after periods. For example, although we would like to study the effects of Scotland's more comprehensive right to roam statute, the public real estate price data for Scotland are extremely limited prior to the law's adoption in 2003. Second, for the control observations to adequately control for background trends, the control group must actually provide a reasonable counterfactual trend for the treatment observations. If it does not, its inclusion could fail to prevent a background trend from confounding the estimation of the law's effect, and it could actually make the estimate even worse than if no control group had been used at all.[166]

Given these complications, we take the following approach. First, we focus on property values in England and Wales since both countries have comprehensive real estate price data for the 1995–2014 period, which spans the law change that took place in 2000 for those countries. Second, rather than compare the prices in these countries to prices in some other country where no right to roam law was passed during the period, we instead compare properties within the countries by region, exploiting the fact that some regions of each country have a relatively large fraction of land that is affected by the law, while other regions are largely unaffected by the law because they lack the natural features specified in the law. By examining this comparison between regions of one country, as opposed to looking at the differences across countries, we ensure that any other changes occurring at the national level (e.g., other law changes, macroeconomic effects, banking or creditor policy changes, etc.) that may lead to different background trends in real estate prices are adequately accounted for.

166 For a more in-depth discussion of these issues, see Jonah B. Gelbach & Jonathan Klick, *Empirical Law and Economics*, *in* THE OXFORD HANDBOOK OF LAW AND ECONOMICS (Francesco Parisi ed., forthcoming 2017), especially section III.B.

Our difference-in-difference estimation strategy takes the following form

$$p_{rt} = a + \beta\left(\text{landfraction}_r \cdot \text{law}_t\right) + \sum_{r=1}^{N}\eta_r + \sum_{t=1}^{T}\tau_t$$

where the outcome variable (p_{rt}) is the average sales price[167] sold in the region r for the given time period (month t). We examine the natural log of the average sales price.[168] The data are available for each month from 1995 to 2014, so we have 240 observations for each region in our dataset. The treatment variable takes the value of zero for every period prior to December 2000, when the law passed. In subsequent periods, the value is the fraction of total land area in the region that is ultimately designated as access land.[169] The regression includes separate fixed effects for each region of the country being studied[170] (which allows for different baseline prices across the country), as well as separate time fixed effects for each period[171] (which allows for a common background trend that could potentially be nonlinear) included in the dataset. In some specifications, we account for the possibility that different regions have differential preexisting trends by including a set of terms where the region's fixed effects are interacted with a linear time trend.[172] This allows us to detrend the data differentially by region while running the regression above.

---

167 The results that follow are largely unaffected if we instead focus on the price index available in the dataset, which is based on properties that have been sold multiple times in the dataset to account for changes such as size and style, etc., in the type of house. *See* GOV.UK, ABOUT THE UK HOUSE PRICE INDEX (2016), https://www.gov.uk/government/publications/about-the-uk-house-price-index/about-the-uk-house-price-index [https://perma.cc/Y3AK-SYJC] (discussing how matched pairs of transactions are used in a repeat sales regression procedure to develop the index so that price trajectories can be estimated independently of any change in the housing mix that generates the sales for a given month).

168 Focusing on the natural logarithm is helpful because it allows us to interpret the coefficients as percentage changes. *See* JAMES H. STOCK & MARK W. WATSON, INTRODUCTION TO ECONOMETRICS 271 (2d ed. 2007).

169 More explicitly, our treatment variable is the interaction between $landfraction_r$, which is always equal to the fraction of land designated as access land in the particular region (i.e., it does not differ period to period), and law_t, which is the same for every region, but differs across the time periods (i.e., it is 0 for periods prior to December 2000, and it is equal to 1 for periods from December 2000 through the end of the sample period).

170 This is represented in the equation by the summation of η_r terms. Effectively, this allows for each region to have its own differential baseline or intercept term in the regression. This regional baseline is constant throughout the sample timespan.

171 This is represented in the equation by the summation of τ_t terms. This allows each period to have its own differential baseline or intercept term in the regression. This time period baseline is constant across all regions for the given time period.

172 Mechanically, this involves adding a separate additional variable to the regression for each region where the variable is equal to a linear count (i.e., 1, 2, 3, . . . , T) for the given region, and adding zero for the other regions.

To further limit the possibility that other background factors are driving real estate prices during our sample period, in addition to examining the entire period 1995–2014, we also separately analyze substantially shorter time windows to provide confidence that any price change we observe after the law was passed is, in fact, due to the passage of the right to roam law and not other things that may be changing in England and Wales. Focusing on short time windows has the advantage of narrowing the possibility that other changes relevant to real estate prices are occurring after the enactment of the right to roam law. However, it also requires that owners and potential buyers capitalize their views regarding the right to roam quickly. If it takes too much time for the process to occur, short windows might miss some (or all) of the resulting price evolution. Additionally, the expectations of what costs and benefits the right to roam will bring may depart substantially from what owners and potential buyers ultimately experience once the law is in effect. For these reasons, we examine a number of different time periods, including both short and long windows around the statute's passage in 2000.

We focus on the passage of the law in 2000, rather than its subsequent implementation, for two reasons. First, presumably, if owners and potential buyers are rational, they will incorporate their expectations about the law when it becomes clear that it will come into effect. Waiting until the law is actually implemented to revise price expectations presumably creates arbitrage opportunities for other actors in the market. Second, econometrically, since the actual access land designations were made well after 2000, focusing on the passage date helps mitigate a potential endogeneity problem. That is, if public officials ultimately end up making access land designations on the basis of expected changes in real estate values, it would be the case that our treatment metric is actually influenced by our outcome variable, leading to a reverse causation problem. Such determinations could either occur directly, with public officials favoring higher/lower value areas for common access designation, or they could occur indirectly, with higher/lower (though likely higher) value land owners lobbying officials more vigorously during the designation period. By focusing on price changes as of 2000, when the actual ultimate determinations are unknown and actors in the real estate market are only basing their expectations on the (pre)existence of the natural features designated in the statute, this kind of reverse causality problem is less likely to influence our results.

B. *Data*

The real estate data come from the United Kingdom's Land Registry House Price Index webpage.[173] These data include all residential housing transactions in England and Wales, whether done by cash or with the use of a mortgage.[174] The relevant geographic units in England are regions, while in Wales, they are counties and authorities. This difference was necessitated by the geographic units for which the access land measurements were available. Thus, for England, we have average house sales price data by month for the following nine regions: North East, North West, York and Humberside, West Midlands, East Midlands, East of England, London, South West, and South East. For Wales, we have monthly average house sales price data for the following twenty-two counties and authorities: Blaenau Gwent, Bridgend, Caerphilly, Cardiff, Carmarthenshire, Ceredigion, Conwy, Denbighshire, Flintshire, Gwynedd, Isle of Anglesey, Merthyr Tydfil, Monmouthshire, Neath Port Talbot, Newport, Pembrokeshire, Powys, Rhondda Cynon Taff, Swansea, The Vale of Glamorgan, Torfaen, and Wrexham.

The fraction of land covered by the law is measured as the total land area affected divided by the total land area in the geographic unit. For England, the data were provided to us by the Open Access Contact Centre at Natural England. These data are reproduced in Table 1 below.

Table 1: Access Land in England

Region	Total Area (ha)	Access Land (ha)	Percent
London	159,471.80	831	0.5
East of England	1,957,409.90	14,463.20	0.7
West Midlands	1,300,380.50	18,852.40	1.4
East Midlands	1,581,076.00	33,182.40	2.1
South East	1,940,740.50	49,599.00	2.6
South West	2,436,589.10	108,933.30	4.5
York & Humberside	1,556,402.80	215,308.40	13.8
North West	1,492,361.60	264,112.40	17.7
North East	867,642.20	159,968.10	18.4
TOTAL	13,292,074.40	865,250.20	6.5

173 *UK House Price Index*, LAND REGISTRY, http://landregistry.data.gov.uk/app/ukhpi [https://perma.cc/PN7U-C9QE].

174 The documentation for the data is available at GOV.UK, *supra* note 167.

For Wales, the data are available publicly on the internet.[175] The data are reproduced in Table 2 below.

Table 2: Access Land in Wales

County/Authority Name	Total Area (ha)	Access Land (ha)	Percent
Cardiff	14,948	110	1
Monmouthshire	73,669	515	1
Pembrokeshire	101,238	936	1
Isle of Anglesey	74,891	1,507	2
The Vale of Glamorgan	33,977	517	2
Carmarthenshire	223,589	7,803	3
Flintshire	48,949	1,327	3
Newport	21,835	978	4
Neath Port Talbot	45,193	3,483	8
Gwynedd	91,290	9,189	10
Wrexham	50,377	5,105	10
Conwy	72,568	8,288	11
Caerphilly	27,758	4,022	14
Ceredigion	181,244	25,695	14
Denbighshire	84,630	12,182	14
Rhondda Cynon Taff	37,134	5,304	14
Swansea	42,123	6,015	14
Bridgend	25,522	4,213	17
Powys	430,330	88,073	20
Merthyr Tydfil	8,674	2,178	25
Torfaen	12,475	3,261	26
Blaenau Gwent	10,540	4,193	40
TOTAL	1,712, 954	194,894	11

175 Open Access Mapping Review Statistics (Sept. 2014), http://naturalresources.wales/media/677725/open-access-mapping-review-stats-external.xls [https://perma.cc/93QU-5MHA].

C. *Empirical Analysis – England*

In our first regressions, shown in Table 3, we use all of the data from 1995–2014, following the specifications indicated above.

Table 3: Effect of the Passage of the 2000 Right to Roam Statute – England 1995–2014
(Standard Errors Clustered by Region in Parentheses) [176]

	***ln*(Average Sales Price)**	
Treatment Effect	-0.92 (0.24)***	-0.55 (0.14)***
Regional Fixed Effects	Yes	Yes
Time Period Fixed Effects	Yes	Yes
Region Specific Trends	No	Yes

***p < 0.01; **p < 0.05; *p < 0.10

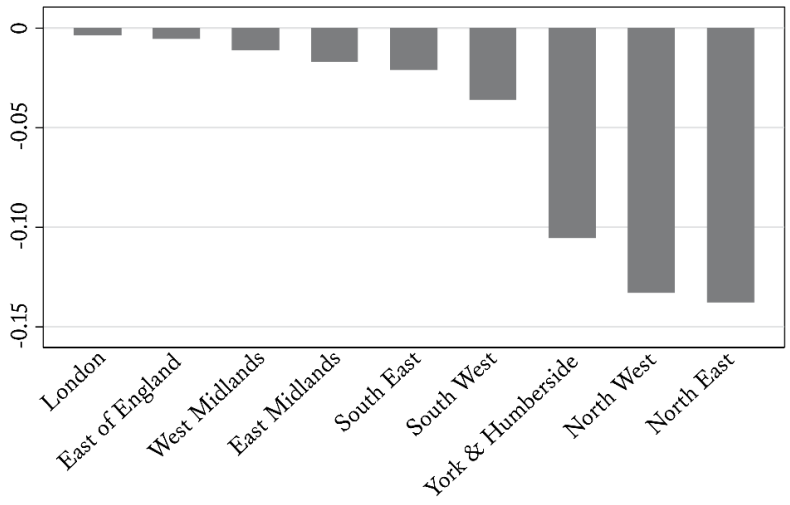
The effect of the treatment variable is negative, and it is statistically significant. This is true even if we include differential trends across regions in the regressions. The latter specification provides some confidence that the estimated treatment effect is not simply a continuation of a preexisting trend leading to a spurious correlation. The coefficients across the two specifications are not statistically significantly different from each other.[177]

176 Clustering the standard errors by region allows for potential serial correlation in the housing prices within a region. This technique is useful because period to period observations are unlikely to be independent, with the price series exhibiting a kind of inertia. It could also be the case that there is some dependence across regions within a given period. To account for this possibility, in unreported results, we also calculated standard errors clustered by region and period using the method described in A. Colin Cameron, Jonah B. Gelbach & Douglas L. Miller, *Robust Inference with Multiway Clustering*, 29 J. BUS. & ECON. STAT. 238 (2011). Using this method, our results are substantially the same. In no instance does the determination of statistical significance vary based on which way the standard errors are clustered. Another paper raises the concern that parametric inference techniques are faulty when the number of clusters is small. *See* A. Colin Cameron, Jonah B. Gelbach & Douglas L. Miller, *Bootstrap-Based Improvements for Inference with Clustered Errors*, 90 REV. ECON. & STAT. 414 (2008). In our case, we have only nine regions, which would trigger their concern. If we apply Cameron et al.'s wild cluster bootstrap technique, we continue to find that we reject the null of zero price change at a type 1 error of 1%.

177 Estimating the two regressions as a system of equations and then testing the equality of the treatment effect coefficients leads to a p value that exceeds 0.22.

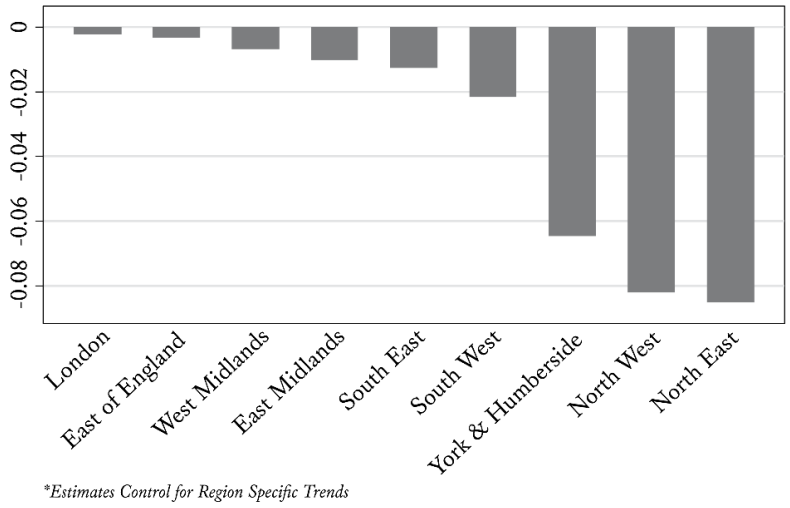
To contextualize our results, it is useful to compare the estimated relative price decline across regions, based on how much of the land in the region is declared to be access land. As a baseline comparison, our data indicate that between 2000 and 2014, the average property across all of England increased in value by about 113%. This comparison is provided in Figure 1.

Figure 1



The average loss, as a fraction of the average price appreciation over the 2000–2014 period, is about 6%, with London and the East of England effectively experiencing no loss, and the North East experiencing a loss of about 14% of the period's gain. The effects are slightly smaller when the differential trends are accounted for, as seen in Figure 2.

Figure 2



**Estimates Control for Region Specific Trends*

To further examine whether the estimated effect is causal, Table 4 considers whether the estimated effect is merely an artifact picking up a departure between the trends in rural housing prices and those of urban prices. To account for this, a variable capturing the fraction of regional residents who live in rural areas in the post-law change period is included.[178] If the access land designations are simply capturing changes in rural home prices in the post-2000 period, the inclusion of this variable should be able to sort the two effects.

178 Mechanically, this variable is constructed in the same fashion as our treatment effect variable (i.e., 0 for all observations pre–December 2000; for all observations from December 2000 and on, the variable is equal to the rural population variable in the given region). The underlying data are derived from a report issued by the UK Office of National Statistics. *See Rural and Urban Areas: Comparing Lives Using Rural/Urban Classifications* fig.5, UK OFF. NAT'L STAT., http://www.ons.gov.uk/ons/rel/regional-trends/regional-trends/no--43--2011-edition/rural-and-urban-areas--comparing-lives-using-rural-urban-classifications---supporting-data.xls [https://perma.cc/24W5-VU46].

Table 4: Effect of the Passage of the 2000 Right to Roam Statute – England 1995–2014
(Standard Errors Clustered by Region in Parentheses)

	ln(Average Sales Price)	
Treatment Effect	-0.96 (0.25)***	-0.45 (0.06)***
Rural Population Share *x* Law Period	-0.002 (0.003)	0.004 (0.001)***
Regional Fixed Effects	Yes	Yes
Time Period Fixed Effects	Yes	Yes
Region Specific Trends	No	Yes

***p < 0.01; **p < 0.05; *p < 0.10

To further isolate causality, in Table 5, we examine a number of smaller time windows. We start with a very narrow window, namely 1999–2001, which involves only a full calendar year of data before and after the legal change in December 2000. We also present periods from 1995 through 2001 and 1995 through 2005. Finally, we present an estimate that stops the sample at the end of 2006, out of concern that the worldwide real estate slump beginning in 2007 might be affecting our results in unexpected ways. Because these shorter windows leave insufficient time to credibly estimate region-specific trends, we only present the specifications without those trends.

Table 5: Effect of the Passage of the 2000 Right to Roam Statute – England Varying Time Windows
(Standard Errors Clustered by Region in Parentheses)

	ln(Average Sales Price)			
	1999–2001	**1995–2001**	**1995–2005**	**1995–2006**
Treatment Effect	-0.61 (0.11)***	-1.68 (0.30)***	-1.13 (0.20)***	-0.96 (0.18)***
Rural Population Share *x* Law Period	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Regional Fixed Effects	Yes	Yes	Yes	Yes
Time Period Fixed Effects	Yes	Yes	Yes	Yes
Region Specific Trends	No	No	No	No

***p < 0.01; **p < 0.05; *p < 0.10

In all of the shorter windows, we continue to find a negative treatment effect that is statistically significant, though there is some variability in the estimate of the treatment effect.

We also attempt to account for the fact that the London property market is essentially a world market, which might make it inappropriate to include the London observations in the sample. We present these results, where the London observations are excluded, in Table 6.

Table 6: Effect of the Passage of the 2000 Right to Roam Statute – England
London Omitted
(Standard Errors Clustered by Region in Parentheses)

	ln(Average Sales Price)	
Treatment Effect	-0.40 (0.21)*	-0.43 (0.08)***
Rural Population Share *x* Law Period	0.01 (0.00)**	0.00 (0.00)***
Regional Fixed Effects	Yes	Yes
Time Period Fixed Effects	Yes	Yes
Region Specific Trends	No	Yes

***p < 0.01; **p < 0.05; *p < 0.10

The results that omit London are largely in line with the previous results. Thus, it seems unlikely that London is driving our results.

Lastly, to examine whether the effect we have observed is stable, as opposed to, perhaps, diminishing over time (as might be the case, for example, if people's values change when the law is announced due to uncertainty regarding how it will be carried out, only to revert to baseline after an adjustment period), we break the treatment effect into two separate indicators. In the first case, we simply split the post-adoption indicator into two equal spans (December 2000–December 2007 and January 2008–December 2014). In the second case, we split the indicator into the period in which the law was passed but not yet fully implemented (December 2000–October 2005) and the period in which the law was implemented (November 2005–December 2014). If the price effect is undone in the later period, we should expect to find a zero (or even positive) coefficient for the later treatment effect, whereas if the price effect largely endures, we should expect negative coefficients on both indicators.

Table 7: Effect of the Passage of the 2000 Right to Roam Statute – England Evolving Effects
(Standard Errors Clustered by Region in Parentheses)

	ln(Average Sales Price)	
Early Period	Dec. 2000–Dec. 2007	Dec. 2000–Oct. 2005
Later Period	Jan. 2008–Dec. 2014	Nov. 2005–Dec. 2014
Early Period Treatment Effect	-0.91 (0.17)***	-1.21 (0.19)***
Later Period Treatment Effect	-1.01 (0.35)***	-0.83 (0.29)***
Rural Population Share *x* Law Period	-0.00 (0.00)	-0.00 (0.00)
Regional Fixed Effects	Yes	Yes
Time Period Fixed Effects	Yes	Yes
Region Specific Trends	No	No

***p < 0.01; **p < 0.05; *p < 0.10

Breaking the treatment effect into early and late components largely suggests that the effect endures over time, as opposed to individuals becoming used to the effects of the legal change.

D. *Empirical Analysis – Wales*

As indicated in Tables 1 and 2 above, England and Wales appear to have made very different choices regarding access land, with Wales designating almost twice as much land (proportionately) as access land. Since we have the treatment variable at a much finer geographic level for Wales, Wales gives us the opportunity to isolate the right to roam effect much more precisely. For these reasons, we analyze Wales separately from England in Table 8, following the same approach as above.

Table 8: Effect of the Passage of the 2000 Right to Roam Statute – Wales 1995–2014
(Standard Errors Clustered by Region in Parentheses)

	***ln*(Average Sales Price)**	
Treatment Effect	-0.51 (0.12)***	-0.48 (0.10)***
Regional Fixed Effects	Yes	Yes
Time Period Fixed Effects	Yes	Yes
Region Specific Trends	No	Yes

***p < 0.01; **p < 0.05; *p < 0.10

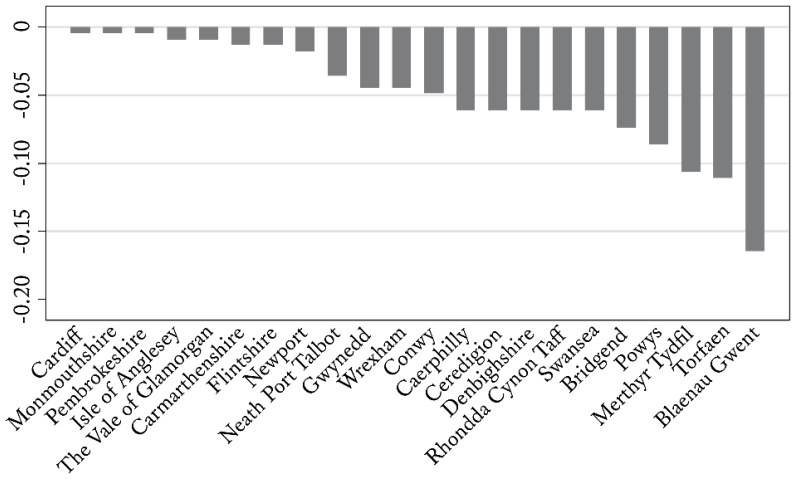
As with England, we find statistically significant negative treatment effects, regardless of whether we account for differential regional trends. The difference between the two coefficients is not statistically significant.[179]

In terms of gauging the magnitude of the estimated effect, as above, it may be useful to compare the losses to the baseline gain in property prices over the 2000–2014 period. For Wales, the average appreciation of property values over this period is 112%. As can be seen in Figure 3, the magnitude of the loss in property values as a share of overall appreciation in the 2000–2014 period is quite similar to that of England.[180]

179 Estimating the two equations as a system yields a difference in coefficients with a p value > 0.71.

180 There is virtually no difference between the regional trend and no regional trend specifications; therefore, we only present magnitudes based on the no trends model for Wales.

Figure 3



The average magnitude across the regions of Wales is -0.05, whereas the maximum loss exceeds 16% of the overall appreciation in the period. The Welsh results, then, would seem to further bolster the English results, both in terms of direction of the effect and its practical magnitude.

As with England, there is a potential concern that we are merely picking up some differential change in rural land prices. As above, we present results where we control for this effect by having a parallel December 2000–onward effect that controls for the percent of the region's population living in a rural area.[181]

181 These data come from a statistical bulletin issued by the Welsh government. *See* Statistical Directorate, Welsh Assembly Government, "Rural Wales"—Definitions and How to Choose Between Them tbl.1 (2008), http://gov.wales/docs/statistics/2008/080313sb102008en.pdf [https://perma.cc/TB7F-5L77]. The rural indicator is calculated by subtracting the sum of the percent of each region's population living in large and small towns in the "less sparse context" from 100%.

Table 9: Effect of the Passage of the 2000 Right to Roam Statute – Wales 1995–2004
(Standard Errors Clustered by Region in Parentheses)

	ln(Average Sales Price)	
Treatment Effect	-0.37 (0.09)***	-0.43 (0.10)***
Rural Population Share *x* Law Period	0.20 (0.03)***	0.07 (0.03)**
Regional Fixed Effects	Yes	Yes
Time Period Fixed Effects	Yes	Yes
Region Specific Trends	No	Yes

***p < 0.01; **p < 0.05; *p < 0.10

As we saw with England, controlling for a parallel change having to do with rural areas in the period after the roaming law is passed does not affect our estimate of the treatment effect of the law.

Table 10 examines shorter windows around the legal change, following the conventions described above.

Table 10: Effect of the Passage of the 2000 Right to Roam Statute – Wales Varying Time Windows
(Standard Errors Clustered by Region in Parentheses)

	ln(Average Sales Price)			
	1999–2001	**1995–2001**	**1995–2005**	**1995–2006**
Treatment Effect	-0.28 (0.05)***	-0.48 (0.11)***	-0.51 (0.11)***	-0.46 (0.10)***
Rural Population Share *x* Law Period	0.05 (0.02)***	0.08 (0.04)**	0.14 (0.03)***	0.15 (0.03)***
Regional Fixed Effects	Yes	Yes	Yes	Yes
Time Period Fixed Effects	Yes	Yes	Yes	Yes
Region Specific Trends	No	No	No	No

***p < 0.01; **p < 0.05; *p < 0.10

As before, regardless of the window examined, the estimated effect is robust and largely focused in the very short window surrounding the legal change.

The coincidence of this timing provides some confidence that it is indeed the law change that is driving our result.

To examine the possibility that the initial effect of the law change is subsequently undone, we again examine the treatment effect divided across two periods as described above. These results are presented in Table 11.

Table 11: Effect of the Passage of the 2000 Right to Roam Statute – Wales Evolving Effects
(Standard Errors Clustered by Region in Parentheses)

	ln(Average Sales Price)	
Early Period	Dec. 2000–Dec. 2007	Dec. 2000–Oct. 2005
Later Period	Jan. 2008–Dec. 2014	Nov. 2005–Dec. 2014
Early Period Treatment Effect	-0.39 (0.11)***	-0.48 (0.13)***
Later Period Treatment Effect	-0.35 (0.08)***	-0.31 (0.08)***
Rural Population Share *x* Law Period	0.20 (0.03)***	0.20 (0.03)***
Regional Fixed Effects	Yes	Yes
Time Period Fixed Effects	Yes	Yes
Region Specific Trends	No	No

***p < 0.01; **p < 0.05; *p < 0.10

As we found with England, the early effect of the law is comparable to the later effect of the law. Thus, there is no evidence that the price effects unwind, even in the fairly long term. Instead, it seems that the estimated effects endure.

As with England, the results for Wales suggest that the passage of the right to roam statute in 2000 led to substantial declines in real estate prices in those counties and municipal authorities where a relatively large fraction of the land area was designated as access land. The fact that most of the change occurred quickly after the passage of the statute enhances our confidence that the identified relationship can be interpreted causally.

E. *Policy Implications*

Our findings have important policy implications concerning the right to exclude and the right to roam. First, consider the right to exclude. Our study shows that the right to exclude is very valuable to property owners, and even so-called slight intrusions on owners' exclusion right in favor of more public access seem to come at a real cost to owners. In this regard, testing the impact of the right to roam on property value is particularly interesting, because the right to roam, as it is designed in England and Wales, only minimally interferes with owners' use of their land. Hence, our findings suggest that the right to exclude is of independent value to property owners; it is not a mere proxy for use rights, as some property theorists suggest.[182]

It bears emphasis that in the United States, private property rights are constitutionally protected against government takings. The Takings Clause of the Fifth Amendment provides that the government can take private property only for a public use and only in exchange for the payment of just compensation. No similar protection exists in European countries. As a result, European countries that adopted a right to roam were not obligated to pay compensation to affected property owners.[183] In light of the Takings Clause, establishment of a right to roam in the United States would likely be different. Enactment of a right to roam falls under the category of regulation; it does not involve physical seizure of private plots. As a general rule, regulation of property is a legitimate exercise of government power that does not entail the payment of compensation. However, if the regulation "goes too far[,] it will be recognized as a taking" for which compensation must be paid.[184]

Of particular relevance to our study are two important Supreme Court cases. In the first, *Kaiser Aetna v. United States*, the Court ruled that the establishment of a navigation easement over a private body of water in Hawaii constituted a taking that required the payment of compensation.[185] In this case, the owner of a private pond converted it to a bay and connected it to a navigable marina.[186] The government claimed that as a result of the acts of the

182 *See, e.g.*, Katz, *supra* note 157, at 290 (suggesting that the essence of ownership lies in the ability "to set the agenda for a resource" and that the right to exclude is important only insofar as it enables owners to decide how to use their property).

183 The Countryside and Rights of Way Act 2000, c. 37 (Eng. & Wales), is representative of this reality, as it is silent with respect to any compensation payable to land owners for the diminution in value of their private property. While the United Kingdom has a system of compulsory purchase orders that require compensation, such orders are warranted only in the event of a direct acquisition of private property through the exercise of eminent domain powers, and not when governmental measures result in depreciation of the private owner's land value.

184 Pa. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922).

185 444 U.S. 164 (1979).

186 *Id.* at 166.

owner, the private lagoon had become "a navigable water of the United States" and was therefore subject to public access.[187] Rejecting the government's position, the Supreme Court held that "the [g]overnment's attempt to create a public right of access to the improved pond goes so far beyond ordinary regulation or improvement for navigation as to amount to a taking."[188]

The second case is *Nollan v. California Coastal Commission*.[189] There, the owners of a beachfront property requested a permit from the California Coastal Commission to replace a bungalow that stood on their lot with a larger house.[190] The Commission conditioned the grant of the permit on the owners' agreement to give the public a right of access across their lot, which was situated between two public beaches.[191] The Supreme Court held that the condition imposed by the government in this case was unconstitutional.[192] En route to this conclusion, the Court explained that "[h]ad California simply required the Nollans to make an easement across their beachfront available to the public on a permanent basis in order to increase public access to the beach, . . . we have no doubt there would have been a taking."[193] The Court further noted that the establishment of an easement constitutes a taking as it amounts to a permanent physical occupation.[194] The Court opined that a permanent physical occupation occurs "where individuals are given a permanent and continuous right to pass to and fro, so that the real property may continuously be traversed, even though no particular individual is permitted to station himself permanently upon the premises."[195]

Hence, under current takings jurisprudence, legislation that creates a public right to roam is likely to be upheld as constitutional only if the government pays compensation to all private property owners whose land will be affected.[196] Our results provide an estimate of the amount the government would have to pay private property owners should it decide to grant roaming privileges to the public. While, for the reasons we elaborate below, we cannot calculate the total compensation amount with pinpoint accuracy, our results constitute a useful benchmark for policymakers.

---

187 *Id.* at 170.

188 *Id.* at 178.

189 483 U.S. 825 (1987).

190 *Id.* at 828.

191 *Id.*

192 *Id.* at 841-42.

193 *Id.* at 831.

194 *Id.* at 832-33.

195 *Id.* at 832.

196 *See* Jess Kyle, *Of Constitutions and Cultures: The British Right to Roam and American Property Law,* 44 ENVTL. L. REP. 10,898, 10,902 (2014) (observing that "[g]iven the Court's association of a public right-of-way in *Nollan* with a permanent physical occupation, prospects for an American right to not simply 'pass through' but 'roam around' do seem grim").

It is important to understand that our findings go well beyond the debate about the right to roam and the takings question. The price effects we report have general welfare implications. Our analysis suggests that even measures that may seem to have only a trifling effect on the right to exclude can cause a drop in property values. This effect must be taken into account whenever the government considers land use policies that compromise owners' right to exclude.

We grant that there is a cultural dimension to the analysis. It is widely believed that the right to exclude is more valuable to American property owners than to their counterparts in European countries. Accordingly, there is reason to believe the adoption of laws and policies that grant greater public access, such as the right to roam, in the United States may have an even bigger negative impact on real property prices than the one observed in England and Wales.

Ultimately, however, our study bears on the debate about whether to recognize a right to roam in the United States. The results of our study indicate that recognizing a right to roam has a significant negative effect on real estate prices. This should sound a cautionary note to those who support an institution of a right to roam in the United States. That said, our study does not, and cannot, on its own, negate the possibility that the enactment of a right to roam may be welfare-enhancing. It is theoretically possible that the benefit to the public from instituting a right to roam would exceed the loss to property owners. But, it is very difficult to estimate the benefit the public derives from having the ability to roam. The benefits to hikers, for example, are invariably diverse and largely immeasurable. Cultural and historical factors likely play a critical role.[197]

Another important factor that must enter the discussion is the availability of alternatives. The expansive state and federal parks that exist in the United States provide ample opportunity for hikers and the public at large to engage in recreational outdoor activities, even in the absence of a right to roam. Of course, some will argue that the current state of affairs falls short of the gold standard and that more public access is needed. In light of the existence of the state and national parks in the United States, however, the marginal benefit from expanding access by instituting roaming rights may be smaller than the marginal benefit in the European scenario, while the marginal harm may be greater.

---

197 Hypothetical-valuation studies have been widely used to value ecological amenities, endangered species, etc., which might offer some hope of measuring benefits here. That said, there is controversy about whether those measures are credible. *See generally* Jerry Hausman, *Contingent Valuation: From Dubious to Hopeless*, 26 J. ECON. PERSP. 43 (2012) (surveying the literature on these studies and concluding that they suffer from long-standing problems).

A sensible compromise may therefore be to introduce a right to roam only in certain areas that are highly attractive to the public and are not normally designated as park land. The one example that immediately comes to mind is beaches and lakeshores. Lawmakers have long struggled with the challenge of public access to beaches and have employed various legal tools, such as the public trust doctrine,[198] custom,[199] and even exactions,[200] to expand the right of the public to use beaches. Given the public interest in access to beaches, it is possible that the recognition of limited roaming rights in such areas may prove to be socially desirable.

Finally, the scope of the right to roam also affects the calculus. The more expansive the roaming rights, the greater the negative effect on real estate prices is likely to be. As we explained, the scope of the right to roam in England and Wales is much more limited than in Scotland and Scandinavia. In principle, it is possible to restrict the right to roam even more than England and Wales did by placing additional time and place limitations on the right. Specifically, a law could limit the public right of passage to certain days (e.g., weekends) or seasons (e.g., summer) and allow access only to certain areas on the fringes of the designated property. Such measures may lower the impact of the right to roam on property prices. At the same time, however, they would likely reduce the benefit to the public.

F. *Empirical Limitations and Extensions*

Although our finding of a decline in real estate prices coinciding with the passage of the right to roam statute in 2000 is robust across England and Wales as well as across various sample time series restrictions, it is possible that the result we have identified is being driven by something other than the statute's passage. The most obvious possibility is that the designation of access land was endogenous to land values. Although focusing on price changes before the land was actually designated in each area mitigates this concern, it does not eliminate it altogether. Actors in the real estate market might have accurately predicted that public authorities would hesitate in designating relatively valuable land (or land in relatively valuable regions). To investigate this possibility, one could examine a more micro level of analysis, perhaps exploiting the sixty-foot privacy zone included in the statute. There are surely some properties that are smaller than sixty square feet, which would be effectively exempt from the statute. These properties' values could be used as an even more appropriate within-region control group

198 *E.g.*, Matthews v. Bay Head Improvement Ass'n, 471 A.2d 355 (N.J. 1984).

199 *E.g.*, State *ex rel.* Thornton v. Hay, 462 P.2d 671 (Or. 1969).

200 *E.g.*, Nollan v. Cal. Coastal Comm'n, 483 U.S. 825 (1987).

in either a matching design, a regression discontinuity design, or a triple differences design. Any of these approaches could strengthen claims of causality or credibly unveil the potential underlying endogeneity in our present analysis.

A more fundamental critique of our study involves the use of property values as a proxy for the value people assign to the law. If there are concerns that markets do not properly capitalize these values into real estate prices, either because the actors in the markets are less than rational or because the markets are not thick enough for informational efficiency to hold, the present project is doomed from the start. Even if those concerns are not founded, one could still be concerned that values accruing to individuals not participating directly in the real estate market are not sufficiently weighted in this kind of approach. This would limit our ability to make any strong welfare claims regarding the law itself, and it would provide only some of the inputs necessary in making strong claims regarding the value of exclusion versus the value of access.

CONCLUSION

The right to exclude is considered the touchstone of private property by laypersons. For many centuries, legal scholars shared that view. In the last several decades, however, the centrality of the right to exclude to the institution of private property has been challenged, first by legal realists and more recently by progressive property scholars. At present, the world of property theory is engulfed in a heated debate between pro-exclusion and anti-exclusion theorists. The debate is not merely conceptual; it has far-reaching implications regarding the extent to which the government can take liberties with private property to advance other social goals. For instance, contemporary research suggests that the security of property is the key determinant of the wealth of nations.[201] Notwithstanding the vast scholarship on the right to exclude, no one, until now, has tried to estimate the value of the right to exclude to property owners and thereby provide an empirical foundation for the debate.

In this Article, we set out to fill that empirical void by measuring, for the first time, the value of the right to exclude to property owners. To this end, we analyzed the effect of the legislation that recognized a right to roam in England and Wales on property values by comparing affected and non-affected parcels before and after the legislation. We found that the formalization of the

201 For a series of articles demonstrating that common law property systems lead to stronger capital markets and overall economic growth, see Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113, 1116 (1998); Rafael La Porta et al., *Legal Determinants of External Finance*, 52 J. FIN. 1131 (1997); Rafael La Porta et al., *The Economic Consequences of Legal Origins*, 46 J. ECON. LITERATURE 285 (2008).

right to roam, though only minimally invasive, led to a statistically significant and substantively important drop in property values. There are reasons to believe that if the United States were to institute a right to roam, the adverse effect on property values would be much greater.

The results of our study have far-reaching implications not only for the debate about the centrality of the right to exclude, but also for the burgeoning debate in the property literature about the desirability of adopting a right to roam, or more generally, expanding public access to private land. Our findings adumbrate the potential cost that would befall private property owners if their right to exclude were curtailed.

Let there be no mistake: we are under no illusion that our study will bring either scholarly debate to a close. As we pointed out, it is essential to evaluate the benefit that may arise from increasing public access to private property in order to know the net social effect of laws and regulations that override the right to exclude. Furthermore, we are fully aware of the fact that empirical research cannot settle philosophical debates about the right and the good.

That said, our study provides much-needed and long-awaited information about the value of the right to exclude that can shape land use policies in the future. It also carries a promise for transforming the nature of academic debate about private property from a purely theoretical discussion into one that is more anchored in empirical research and findings. We believe it would be a welcome transformation that would carry the world of property law forward.