

Land Use Regulation: A Supply and Demand Analysis of Changing Property Rights*

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Two trends stand out in an examination of the historical development of land use regulation in the United States. First, continually increasing controls have been placed on the rights of private landowners to use their land as they please. Second, in recent years state and federal involvement in land use regulation has become increasingly important. The dual purposes of this paper are to offer an explanation for, and to examine the consequences of, these trends.

It is argued below that land use regulations are the result of public sector responses to demands of politically powerful special interest groups, rather than attempts to correct for market failures.¹ Furthermore, changes in regulatory policies occur because of changes in interest group strength. This argument is not new. Sanders, for example, recently made similar observations.² However, discussion, more detailed than Sanders', concerning land use regulation in the context of this "economic theory of regulation" (as named by Posner³) is warranted in order to determine the consequences of this process. Prior to an examination of the demand and supply process, however, a specification of exactly what is being demanded and supplied is required.

Regulation—The Demand for and Supply of Property Rights

The objects of interest group demands and the functions of government regulators are: a) the assignment of property rights, and b) enforcement of each property rights assignment.⁴ As Stubblebine noted:

Every individual seeks those property rights modifications which he believes will improve his welfare. Since property rights condition behavior, he seeks those modifications which will induce others to make choices conveying on him an increased sense of satisfaction.⁵

*This project was partially funded by the Pennsylvania State University College of Liberal Arts Central Fund for Research.

When rights are modified or reassigned, there are at least two groups involved. One gains at the expense of another. A property right is a resource, and the demand for a scarce resource leads to a conflict of interest. New property rights are created when the rights to own something become desirable. However, in the case of private land in the United States it can be assumed that all rights belong to landowners, whether explicitly or implicitly defined. (This claim is made in light of the beliefs detailed below concerning land use rights during the early history of the country.) Consequently, whenever property rights are reassigned to a group other than landowners, there is a cost to the landowners. Thus, there are at least two, and possibly several, interests in conflict whenever property rights to private land are modified.

The demand for property rights to land use can be divided into two categories—the derived demand for rights to use land as a productive input, and the demand for consumptive rights to land arising from the direct utility a user receives. Consumptive rights include the rights to use land for recreation, and for such aesthetic purposes as preservation of scenic views and open space. (Consumptive benefits may result from productive rights, for example, when recreational services are produced on the land.) Private individuals may own land primarily because they desire rights to productive uses of land, consumptive uses of land, or both. Many public rights to land are rights to consumptive uses. The primary focus in this paper will be on nonlandowner demand for public consumptive rights to land. Such public rights usually prevent private productive land uses, as well as private consumptive uses, and are opposed by landowners.

Property rights generally are considered to be assigned either to private individuals or to the “public”. However, designation of property rights as “public” does not mean that all members of society benefit. The “public” may have to bear the cost of maintaining a particular assignment of rights, but only those who use the rights benefit from the assignment.

The distinction between “individual” and “public” is a legal fiction, not readily translated into reality. The benefits... may extend only to the owner of the property in question, to his immediate neighbors, to the community, the region, or conceivably, the entire world. The legal dichotomy does not readily admit such gradations of “public” versus “private.”⁶

Thus individuals and groups desire “public” rights to private land if those rights allow use of the land in ways which benefit them.

The Demand for Land Use Regulation

Stigler proposed an “economic theory of regulation” in which he contended that interest groups demand regulation from their political representatives.⁷ This political market distributes regulatory favors to those with the highest

effective demand. A small group with a large per capita interest tends to dominate over a larger group with more diffuse interests. Small interest groups generally dominate because of the relationship between group size and the cost of obtaining favorable regulation. There are two costs involved. One is the cost of information. Voting is infrequent and usually concerned with a package of issues. Thus, individuals must incur costs to inform themselves about particular issues and politicians. This investment is not worthwhile unless the expected gains are relatively large compared to alternative investments (after all, the desired rights could be purchased through a private market exchange). Consequently, when the potential per capita gain is small, individuals will have relatively weak incentives to obtain the information. In addition, there are costs of organizing. Individuals must first recognize their interest (obtain information) and then organize to express that interest to politicians. The expression of interests includes mobilizing votes and money, as well as informing representatives of the group's desires and political strengths. These organizing costs tend to rise faster than group size.⁸

In addition to the above observations made by Stigler on the demand for regulation, certain other factors should be noted. First, Peltzman observed that more than one interest group can obtain benefits from a particular regulatory policy. Second, Hirschleifer pointed out that regulators themselves constitute an interest group which benefits from regulation and which may demand regulation. Finally, an interest group may be forced to organize and demand regulation in order to avoid losses due to regulation benefiting another interest group. Thus, the number of groups interested in any particular area of regulation (e.g., land use) can change over time, and, further, the politically dominant interest group can change.⁹

The Supply of Land Use Regulation

Stubblebine recognized four mechanisms through which rights modifications are made: "private exchange of rights" and "collective or legislative action" (both of which are permitted), and "private crime" and "social revolution" (which are proscribed).¹⁰ The prime concern of this discussion is "collective or legislative action" for modification of property rights. Governments regulate by creating and enforcing rights, and by modifying existing rights assignments.

The institutional makeup of the political regulatory supply process generally depends upon the size of the regulatory jurisdiction. Regulation is often supplied by elected commissions in small local jurisdictions. In larger areas (i.e., some states or metropolitan counties) elected representatives may delegate regulatory powers to an appointed commission. And, if the regulatory authority is concerned with a very large area, a bureaucratic agency may perform the regulatory function. This is often the case when the

federal government is involved (for example, the Forest Service or the Bureau of Land Management). In the cases of appointed commissions or bureaucratic agencies, elected representatives typically assign property rights and then delegate enforcement powers to a regulatory body.¹¹

Peltzman developed a model of economic regulation by elected officials.¹² His model need not be repeated here but certain conclusions are worth noting.

1) An elected representative tends to favor the politically most powerful interest group(s). Similarly, the legislature reflects the demand of the group which exerts the greatest political pressure to obtain desired results. In Samuels' words:

opportunities for gain, whether pecuniary profit or other advantage, accrue to those who can use government If income distribution and risk allocation is a partial function of law then the law is an object of control for economic or other gain . . . whether the instances be tariff protection, oil subsidies, real estate agents' attempts to ban "for sale" signs on private homes or any other type of property rights.¹³

The group which most desires a property right will be the group willing to give the most for the right in terms of votes, contributions, and so on.

2) When there are differences among members of an interest group, the benefits (or costs) which result from a particular rights assignment differ among members.

3) The favored interest group(s) is not favored to the extent that it could be. The reason this conclusion (as well as conclusion 2) holds is that the "marginal political return of a transfer must equal the marginal political cost" in order for an elected official to maintain his majority.¹⁴ Thus, in assigning rights, elected regulators wish to have the marginal benefits which accrue to the favored interest group(s) equal the marginal costs which accrue to the losers.¹⁵

Elected officials often delegate many regulatory powers to bureaucratic agencies and/or commissions, particularly at the state and federal levels. Regulatory powers are delegated to agencies and commissions because of the high transaction costs of decision-making in a large group (i.e., a legislature).¹⁶ Of course, when regulatory powers are delegated to agencies or commissions, the incentives of these bureaucrats and commissioners must also be examined. These regulatory authorities can be viewed as firms producing a service or a set of services—namely, the enforcement of legislatively determined property rights assignments. The enforcement services are exchanged for a budget. This type of exchange has been modeled by Niskanen,¹⁷ and his model has been modified to fit the supply of regulation in the context of the economic theory of regulation.¹⁸ Space constraints prevent presenting this model here but a brief summary of relevant assumptions and conclusions follows.

The important assumptions pertaining to each regulator (commissioner or bureaucratic agency manager) are: 1) he is a utility maximizer, and 2) his utility is a function of income and non-monetary perquisites associated with his position (i.e., prestige, power, social and physical amenities, etc.). The level of regulatory enforcement preferred by a regulator is then assumed to depend upon the regulator's incentive structure as it relates to his utility function. Since both income and perquisites are directly related to bureau size, but generally only perquisites are related to commission size, the tendency for over-enforcement is stronger for a regulatory bureau than for a regulatory commission. However, both types of regulators prefer an output of regulation which exceeds the desires of the legislature. In addition, agencies and commissions are motivated to regulate inefficiently since a regulator typically can appropriate part of the budget allocated by legislators for his own benefit.¹⁹

Now, will legislators allow regulators to over-regulate and to regulate inefficiently? Their efforts to maximize a majority vote are constrained. Legislators have at least two functions to perform: 1) choosing the appropriate rights assignments, and 2) controlling regulators. Time and staff resources must be allocated between these two functions while attempting to maintain a majority. In this constrained majority-maintaining effort, legislators are willing to allow regulators to be inefficient and to over-enforce, but not to the degree that regulators wish.²⁰ A legislator's choices are obviously not quite this simple, but the implication, in any case, is that a lawmaker faces a trade-off between the benefits of monitoring regulators (increased efficiency) and the benefits he can obtain by directing his time and staff to other activities (i.e., determining which interest groups are most powerful and what those groups are demanding). Thus, legislators simply cannot control agencies perfectly and, at the same time, determine the politically optimal rights assignment.

If this model of supply and demand in property rights approximates reality, certain historical facts should be observable. For example, since property rights assignments have been changing, there should be evidence that the dominant interest group also has changed. Furthermore, since there are many political units with control over the property rights within their respective spatial jurisdictions, property rights assignments should vary from one jurisdiction to another if the dominant interest groups vary.

Changing Demand for Land Use Rights

At the time of the American Revolution, the dogma of *laissez faire* expounded by Locke and Blackstone was widely accepted in America. Blackstone wrote:

So great moreover is the regard of the law for private property, that it will not authorize the least violation of it; no, not even for the general

good of the whole community. If a new road, for instance, were to be made through the grounds of a private person, it might perhaps be extensively beneficial to the public; but the law permits no man, or set of men, to do this without consent of the owner of the land. In vain it may be urged, that the good of the individual ought to yield to that of the community; for it would be dangerous to allow any private man, or even any public tribunal, to be judge of this common good, and to decide whether it be expedient or no. Besides the public good is in nothing more essentially interested than in the protection of every individual's private rights, as modelled by the municipal law.²¹

As a result of this wide acceptance of and demand for individual rights, the landowner had basically acquired the right to use his land as he saw fit. Productive landowners made up the dominant interest group concerned with land use rights, and the dominant land use was agriculture. American urban settlements in 1790 accounted for less than three percent of the nation's population. Thus, as Anderson and Hill noted, through the first half of the nineteenth century, the government at both the state and national levels "moved rapidly towards a policy of establishing private rights in land."²² Even when limitations on land use began to develop, they were justified on the basis of protection of private property (rather than of public welfare). For example, the "willingness to modify private property rights in the name of defending property values is characteristic of the early protagonists of zoning."²³

In recent history, however, *restriction of private property rights* has become accepted by the courts. Limitations have been placed on the freedom of land use in the form of zoning and planning regulations. Public easements and the elimination of all private rights through the law of eminent domain and police power have been legalized. These limitations have been intensifying and increasing. Today when an individual buys a tract of land, he finds a smaller bundle of property rights associated with that land than was available a century or even a decade ago. Along with private restrictive covenants and other controls, he may find he can use his land only for certain purposes, build only certain kinds of structures, and occupy only a prescribed portion of his land up to a certain height. Often he cannot be sure of what his rights are, or what they will be in the future.

Rights to land have been transferred from private landowners either through police power or eminent domain. These two legal doctrines can be separated by the way the costs of a property rights transfers are allocated. If the landowner bears the costs, the rights modification resulted from police power. If the "public" bears all or part of the cost and the landowner receives compensation, the modification was provided through eminent domain. Although the two concepts are obviously different, the line between them is often unclear. However, in this brief historical summary of the development of land use regulation the two powers will be discussed separately.

An examination of the application of non-compensatory public measures to control the use of private land could start with the earliest settlements of the colonies. The controls that existed at that time generally applied only within urban areas and were used to curtail only the most obvious nuisances. Between the seventeenth and twentieth centuries the use of police power increased only slightly. However, by 1916 the regulation of private land use in urban areas had begun. In that year New York City adopted the nation's first comprehensive zoning law and the idea spread rapidly. An application of zoning by the town of Euclid, Ohio was upheld by the United States Supreme Court in 1926 and the planning revolution was legitimated.

From their inception local zoning and other land use restrictions have been exclusionary devices in the hands of local landowners, used primarily to protect property values and preserve existing characteristics of their communities. Typically then, the interest groups in conflict at the local level are residential landowner "citizens associations" (generally made up of only a small portion of the total citizenry), and developers who wish to establish some activity which the citizens association opposes.²⁴ Local chambers of commerce may, at times, support a citizens association (if the association disputes commercial development that would establish competitors for existing businesses), or may oppose the citizens association (if the proposed development might significantly expand local markets). Other local groups may also enter the regulatory arena regarding particular projects which will positively or negatively impact them.

In addition to protecting interests, zoning has functioned also as a means of transferring consumptive benefits to the public. Interest groups desiring such public consumptive rights then also play a role at the local level, but the local citizens association often is the group seeking such rights. The claim that police power has been used to provide public consumptive rights to land might be difficult to prove, since it is supposed to prevent harm, not provide benefits. However, in many cases public consumptive benefits are secondary, if not primary results. For example, hazard zoning, which segregates land uses with respect to physical classifications, has been used to limit private land use. The fact that land subject to hazard zoning provides recreational benefits to nonlandowners in the form of open space and scenery, as well as conservation of wildlife, has not invalidated such zoning. In *McCarthy v. City of Manhattan Beach* (1953), the California court upheld the designation of a "Beach Recreation District" and prohibited development by owners of shoreline property, despite the obvious intention to preserve the shoreline for public enjoyment. The designation was upheld because of hazards posed by storms.²⁵ The point is:

Who is to say what is a public use? The law is what common sense would indicate; in essence, it holds that something serves a public purpose if

the public thinks so. This, in practice, means what the legislature says the public wants, and though the two are not always synonymous, the courts tend to go along; if the public through its elected representatives designates a public purpose to be served, the courts reason, this justifies exercise of the public's power.²⁶

"Public" ownership of rights does not mean everyone benefits.

The general trend has been towards more and more use of police power to prevent certain types of land use and provide public consumptive rights to nonlandowners. Although the trend is most noticeable in urban areas, rural zoning is nevertheless in use. Wisconsin first authorized rural zoning by counties in 1923, and in 1929 its original act was amended to authorize the use of zoning to "regulate, restrict, and determine the areas in which agriculture, forestry, and recreation may be conducted." The recreation districts permitted resorts, recreational properties, residences, and forestry uses but excluded new agricultural developments and most industries. In this way, zoning has forced private landowners to produce recreation services even though that need not be the most profitable use of their land.

The first state-wide land use law was passed by Hawaii in 1960, and during the 1970's a number of states passed legislative measures broadening the role of state and regional agencies in land use control. State-wide zoning, rural zoning and other rural land use controls have developed primarily in states with relatively large urban and small rural, agricultural populations.

When compensation is paid to landowners, the transfer of property rights falls under the legal heading of eminent domain. As early as 1811, New York City provided for the taking of land for seven parks on Manhattan Island. Again the assigning of public property rights first took place in an urban area. In fact, the use of eminent domain by state and local governments preceded recognition of similar powers in the federal government, and largely resulted from the demand for urban parks. The urban park movement really started with the demand for, and purchase of, 840 acres to create Manhattan's Central Park in 1858. New York was soon followed by Boston, Chicago, St. Louis, and San Francisco.

The approval of eminent domain, first granted for fee simple public ownership of urban parks, has since been extended to include a variety of public land uses. The "public use" requirement has not been strongly challenged when land has been taken for open space and/or recreation. Again, of course, public ownership does not mean everyone benefits. Stroup and Baden pointed out, for example, that

various interest groups as well as interested individuals attempt to influence the forest service in its exercise of discretion. For example, the forest supervisor might be encouraged to restrict snowmobiles from a winter feeding area or refrain from road building on a watershed feeding a prime trout area. . . . Within this context it is unreasonable to expect politics to be absent from the management of the forest service.²⁷

If demand is strong enough, a group can obtain exclusive rights to "public" property, even though the costs are shared by many others (taxpayers).

Eminent domain does not have to lead to fee simple public ownership. The acquisition of "air rights" to property fronting on Boston's Copley Square was upheld in *Attorney General v. Williams* in 1899. Condemnation of interests less than fee simple did not become common until the metropolitan explosion of the 1950's, however. Acquisition of public easements for conservation, scenic, and other, related purposes through eminent domain has since occurred widely in open space and recreation planning.

State governments have joined local governments in using eminent domain to establish public rights. In fact, "acquisition of land by the states is being given new impetus by the emphasis on outdoor recreation generated by a rise in population and increased mobility and income of the people" and substantial federal financial aid for acquiring land for recreational purposes has "accelerated state-acquisition programs, particularly in the East."²⁸

Eminent domain is also being increasingly used by federal agencies to provide public rights. Before 1900 the dominant federal public land policy was disposal of the public domain. After that date reservation of remaining public lands became the dominant policy, and by 1934 the public domain was virtually closed. Even before 1934, however, the federal government had been adding to its land holdings. In 1911 Congress passed the Weeks Law, which authorized land acquisition to conserve "the navigability of navigable rivers," and since then the federal land holdings have been increasing. In fact, "emphasis of the federal government today in its public land policies is on acquisition," and since the late fifties and early sixties the "movement to acquire large areas of rural land for recreation has been gaining momentum."²⁹ Agencies that have authority to buy land for purposes such as public works, national defense, and conservation now include additional acreage for recreation and other public uses in acquisition plans. Public consumptive uses of federal land may in fact be the primary or only purpose of acquisition in many cases. While most of the public domain is in relatively rural areas, the bulk of the land acquired in the twentieth century is in states with large urban populations. Why are such land use rights being transferred?

A trend which appears to be directly related to increasing public ownership was noted several times in the preceding discussion: the increase in the absolute and relative size of the urban population. At the same time rural per capita disposable income has continued to be lower than urban income. Thus, political power has shifted away from the rural agricultural sector towards the urban sector, since political power involves votes (population) and money. As the urban population has come to dominate the rural population, first local and then state and federal agencies have begun to transfer property rights from the private landowner to the public.

By examining the California vote for Proposition 20, the location of the demand for public consumptive rights is evident. Proposition 20 set up regulations for the entire California "Coastal Zone", defined as the area from three miles off the coast, inland to the highest elevation of the coastal mountain range. It passed by a 55 to 45 percent margin. The measure passed in 32 of California's 58 counties, including all of the populous counties around Los Angeles, San Diego, and San Francisco. In rural counties, such as Humboldt and Del Norte along the far north coast, it failed miserably. An analysis of the vote found that Proposition 20 did best in counties with a high degree of urbanization. The yes vote was negatively correlated with location along the coast.³⁰ Residents of the area to be regulated resisted the transfer of regulatory powers to some nonlocal government body because more interest groups have access to state (or federal) officials than to local officials.³¹ Only local residents can significantly affect local official's reelection efforts. However, at the state level, nonlocal interests may be able to significantly impact local land use since nonlocal interests have a great deal to do with reelection efforts of many state office holders.

Vlassin noted that there has been a continued shift of land into non-agricultural uses in the East and in areas near rapidly growing metropolitan areas. National trends in net land use changes seem slight or moderate, but land use changes adjacent to metropolitan areas have been significant. There obviously are many uses involved here, including intensive urban uses and extensive non-agricultural uses. Publicly provided productive rights include transportation. Private consumptive uses include non-farm rural residences. In addition, "all manner of public recreation facilities and services are being demanded, ranging from large multiple purpose parks and forests to more specialized facilities such as playgrounds, beaches, public lakes and streams, wildlife refuges and areas, wilderness areas, scenic highways and trails, scenic overlooks, public campgrounds and picnic areas."³² Some of these demands result in transfer of all rights from the private to the public sector through eminent domain. Some involve transfer of certain rights from landowners to the public through either eminent domain or police power. All transfers are made because urban based interest groups increasingly dominate the political regulatory process.

Greenwood and Edwards noticed the direct relationship between urbanization and the demand for public rights to land and wrote: "The more urbanized we become, the more we seem to cherish the thought of open space."³³ An alternative explanation of this observation can be offered. Urban population is growing, and its income and leisure time are increasing. Therefore, the demand groups desiring public rights are willing to pay more to apply political pressure than in the past. The more urbanized an area becomes, the more powerful are interest groups which desire public consumptive rights. Open space has always been "cherished," but now the demand for public open space is being recognized and the property rights

are being transferred to nonlandowners by the government. Terms such as "changes in taste" or "gradual awakening of public interest" need not be used to explain what appears to be changes in demand for public rights to land. In more and more cases, the politically dominant interest group is shifting from landowners to nonlandowners. As this continual change takes place government agencies transfer the rights.

Indications for the future are that this process of property rights transfer to the public sector will continue.

Since the United States population . . . may increase by as much as 50 to 100 million people by the year 2000, we can be absolutely certain that the amount of resources demanded [for public consumptive land uses] will also increase. Since there is every indication that the population increase will concentrate in the metropolitan and megalopolitan areas, this increased demand will have its origin in the metropolitan areas and will have its impact in nonmetropolitan areas, namely the rural environment.³⁴

With increasing demand for more rights, there will be continual transfer of property rights from the private sector to the public sector. These future property rights transfers should be more noticeable in and near urban areas and in urbanized states, although increased federal pressure resulting from growing domination of national politics by urban based interests will cause gradual changes in predominantly rural states.

In addition to the changing property rights associated with increased urbanization, there is anecdotal evidence which indicates that land use regulation can be explained by the economic theory of regulation. Recall that Peltzman predicted elected representatives should differentiate between members of interests groups, and favor more than one interest group whenever possible. This implies that, when the relative strengths of interest groups vary over a regulatory jurisdiction or between jurisdictions, we should find different land use policies.

Property rights assignments for public uses of land do vary greatly from state to state and region to region. One example can be seen in the access to public waterways. Donald Levi, while discussing the Missouri case of *Elder v. Delcour*, pointed out: this case "clearly establishes that the public has the right to fish and otherwise use certain riparian waters for recreational purposes" in Missouri, but "in many states . . . the right of the public to use natural lakes and streams may differ substantially or be unclear."³⁵ This results because local and/or state agencies have power to assign property rights, and because state and federal agencies can discriminate spatially.³⁶ Since some states and localities are more urbanized than others, relative interest group strength varies from state to state and locality to locality.

Peltzman also concluded that regulators will not act as perfect brokers for one interest group. An example of a land use regulator's not favoring one interest group to the total exclusion of another, less powerful interest

arises in the context of California's Proposition 20 (on coastal zoning). First, note that Deacon and Shapiro found that the plan was most favored by the upper-income and well educated strata of society.³⁷ Bobo and Shulman similarly concluded that "it can be argued, given vague references to distributional equity, that the purpose of the act, like most planning, was to preserve, protect, and restore coastal resources for the present and future generation of upper-income individuals," and, indeed, evidence indicates that the implementation of coastal zoning has typically meant exclusion of low-income people from select areas.³⁸ However, this does not mean that the relatively well-to-do are the only group favored, to the exclusion of all others. For example, the State Commission denied a permit application of the Santa Monica Redevelopment Agency for 1,400 high-income apartments because the project did not include low- or moderate-income housing and publicly usable open space.³⁹ The agency redesigned the project to include 100 units of moderate-income housing for the elderly, 400 condominiums, and 8 acres of public park. The commission then granted a permit for the 100 units of moderate-income housing. Why? Obviously the elderly are increasingly well organized, and their demands are being recognized even though the result is not completely favorable to high-income groups.

One particular set of property rights deserves mention before moving to the impact of the observed trends. Landowners sometimes have the right to compensation when their land use rights are taken. However, this right has never been clearly defined, and there is growing pressure to increase the number of rights which can be transferred without compensation.⁴⁰ Regulators (and courts) are continually expanding the concept of the police power to limit or regulate property rights. Because, like any other right, the right to compensation is subject to regulatory interpretation and definition, regulatory authorities can attenuate this right if powerful special interests demand attenuation. Furthermore, as with other property rights assignments, the rights to compensation vary from one jurisdiction to another.

The legal limits of how stringently a city or state can regulate the use of land without paying compensation to the owner are currently in flux. At issue is just how broad an interpretation one should give to the Fifth Amendment guarantee known as the "taking clause" . . . "nor shall private property be taken for public use without just compensation." Some would argue that the clause goes no farther than to prohibit physical seizure of or outright use of property by the government; others claim that it makes a wide range of regulations subject to compensation. Courts in various states have handed down widely varying rulings.⁴¹

It appears that as demand for public rights increases individuals can expect a further weakening of the right to compensation for the loss of rights.

Implications of Observed Trends in Land Use Regulation

There are several implications of the observed trends of changing rights and

increasing state and federal involvement. These implications relate to political efficiency, the cost and size of government, productive and allocative efficiency, and social welfare.

First note that, as state and federal land use regulation becomes more important, there is increasing delegation of regulatory powers to commissioners and bureaucrats, both of whom (as discussed above) have incentives to over-regulate and to regulate inefficiently. As a result, the negative impact on losers of any regulatory policy is relatively large when the policy is enforced by a commission or bureau. Therefore these losers have greater incentives to organize and express demands to regulators. The government may respond by compensating this new interest group without taking too much from other organized interests. If so, then still another unorganized group will find itself losing rights or paying higher taxes and have increased incentives to organize. The government sector grows in order to deal with increasing demands from more and more organized interest groups. Furthermore, once an interest group is organized, the most significant costs of demanding government favors have been overcome. Often, the interest group begins to demand rights other than those originally sought. If its demand is strong enough, government responds. The very nature of the political regulatory process tends to cause the regulatory system to grow and rights assignments to be modified with increasing frequency.⁴²

Certainty increases the longer a given property rights assignment exists. One purpose for assigning property rights to land is to allow individual planning to incorporate more accurate predictions. Demsetz pointed out: "Should the practice of involuntary reassignment [of property rights] become common, all confidence in the longevity of property rights will be reduced and all long-run consequences of using property rights in various ways will tend to be neglected."⁴³ Reassignments of property rights are becoming "common," particularly near urban areas. Therefore, "confidence in the longevity" is being reduced more in urban than in rural areas. Landowners near urban areas are becoming very uncertain because of continually changing rights assignments and the expectation of more changes in the future. For example: "The passage of Proposition 20 has left many builders and developers stranded on the beach, cut off from financing and wondering where they go from here."⁴⁴ The effective average cost curve must be relatively high for a producer facing relatively greater uncertainty, because the producer requires a greater return (normal profit) to induce him to stay in that activity.⁴⁵ Therefore urban area production with land as an input involves higher costs. There are transportation costs and other accessibility factors which increase the value of land near cities, but this analysis indicates that other factors (less uncertainty and a larger bundle of property rights) make rural land relatively more valuable and partially offset accessibility factors. There is a higher cost of production to rural area producers due to the capitalization of the resulting relatively high land rents. The long-

run result has to be a higher price of output and lower quantity of commodities produced with land as an input, all other things being equal.⁴⁶

There is also a cost to society that results directly from the increasing public ownership of rights:

Public attitudes toward outdoor recreation are probably more varied than they appear. But the kind of attitude that seems most in evidence is nothing less than a national scandal. For most Americans the word "public" seems to denote "up for grabs". The word "use" does not, for them, imply sharing in common or enjoying and preserving but rather using up, exploiting and discarding. In short, the philosophy seems to be that in public parks anyone can do anything because "after all, I pay taxes."⁴⁷

The increased land damage associated with public rights can result from two factors. First, if the users do not have to pay, there is overuse because of excess demand. Secondly, the fact that rights are assigned to the public rather than private individuals, in itself, implies the attitude described above. Demsetz explained that this results from individual incentives associated with benefits and costs of public rights. When a right is publicly owned, the form of ownership fails to concentrate the costs of use on the individual. When he maximizes his utility with respect to the public right, he tends to overuse the right since some of the costs are born by others (other users and non-using taxpayers). The value of the land diminishes more quickly than under private ownership of all rights.⁴⁸

The cost of maintaining a public assignment of property rights tends to be higher than the costs associated with private rights, as the above argument by Demsetz indicates. It is conceivable that users of public rights might agree to curtail their use, if negotiating and policing costs were zero. Each would have to agree to abridge his rights. However, it is difficult (costly) for a large number of persons to reach a mutually satisfactory agreement, especially when any holdout can use the right as much as he wishes. Even if an agreement could be reached, the policing costs would be high, since there is always an incentive to break the agreement in order to maximize individual utility.

Much of the maintenance costs of a property rights assignment are associated with preventing conflicts or negotiating settlements. There are externalities (and therefore conflicts) associated with private property rights. The owner of land use rights does not control the rights to other individuals' land. He has no incentive (without negotiations or policing) to consider them. The same kind of externality exists in the case public property rights, only it is more costly. Demsetz explained that a system of private, rather than public, rights has fewer conflicts to arbitrate or prevent, and that when a conflict occurs fewer people are involved. Therefore, maintaining a system of private rights to land should be less costly and involve a smaller government sector. Correspondingly, the trend toward transfer of private rights to public rights implies that the regulatory sector must grow.⁴⁹

The excuse often used for taking private rights is that individuals have been using those rights to create negative externalities. However, assignment of rights to the public also results in negative externalities. Demsetz points out that the negative externalities associated with public ownership tend to be greater than with private ownership.⁵⁰ These external costs are partially reflected in the maintenance costs of the regulatory agency. However, no regulatory system ever forces internalization of all external costs. It can be argued that the non-internalized externalities will be greater with public rights assignments, since the externalities created are greater. If these costs are not completely internalized, the long-run effect is a reduction in the value of land being damaged. This is another cost which landowners have to bear (or which taxpayers bear, if compensation is paid or if the land is publicly owned).⁵¹

The traditional explanation of regulation is that the government steps in to prevent or adjust for market failure. The "invisible hand" has failed to guide the actions of self-interested individuals for the benefit of society because of externalities or monopoly power. In other words, what is good for the individual is not good for society, so regulation is required. An alternative explanation of regulation has been offered here. Regulation is simply the way in which self-interested public officials provide benefits, in the form of property rights, to self-interested individuals who form interest groups. If this is true, then government regulation appears to be creating more externalities than it prevents. This results because what is good for individuals who demand and supply regulatory changes in property rights is not good for society as a whole. This "government failure" may in fact be more costly to society than any market failure.

NOTES

1. Stigler and several others advanced this economic theory of regulation primarily as an explanation of industrial regulation. See George Stigler, "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science* 2 (Spring 1971):3-27; Bruce Benson, "Observations on Supply of Regulation in the Context of Stigler's Theory of Economic Regulation," Pennsylvania State University, Working Paper, March 1981; Benson, "Regulation—the Demand and Supply of Property Rights," *Appalachian Business Review* (Special Issue on Regulation) 8 (1981):22-28; Samuel Peltzman, "Towards a More General Theory of Regulation," *Journal of Law and Economics* 19 (August 1976): 211-40; and Richard Posner, "Theories of Economic Regulation," *Bell Journal of Economics and Management Science* 5 (Autumn 1974):335-58. For a discussion of supporting evidence, see Benson, "Observations on the Supply of Regulation."
2. William Sanders, "Property Rights and the Political Economy of Resource Scarcity: Comment," *American Journal of Agricultural Economics* 61 (February 1979):116-18. For a sample of discussions of the important role of interest groups in land use regulation, also see: Benjamin Bobo and David Shulman, "Managing California's Coast: The Problem of Housing Distribution," *California Management Review* 20 (Fall 1977):74-80; Robert Healy, *Land Use and the States* (Baltimore: John Hopkins University Press, 1976); and Robert Linowes and Don T. Allensworth, *The Politics of Land Use* (New York: Praeger Publishers, 1973).
3. Posner, "Theories of Economic Regulation."
4. Stigler, Peltzman, and others contend that the object being demanded and supplied is a

- transfer of wealth. (See Stigler, "The Theory of Economic Regulation"; and Peltzman, "Towards a More General Theory.") However, a property rights view provides several important insights into the regulatory process and eliminates a number of the criticisms of the economic theory of regulation. For discussion of this point, see the following by the present author: "Observations on the Supply of Regulation," and "Regulation—the Demand and Supply."
5. William Craig Stubblebine, "On Property Rights and Institutions," in Henry Manne, ed., *The Economics of Legal Relations* (St. Paul: West Publishing, 1972), p. 15.
 6. Rutherford Platt, *The Open Space Decision Process* (Chicago: University of Chicago Press, 1972), p. 16.
 7. Stigler, "The Theory of Economic Regulation."
 8. See Posner ("Theories of Economic Regulation") for a detailed discussion of the costs of organization.
 9. See Peltzman, "Towards a More General Theory"; Jack Hirshleifer, "Comment," *Journal of Law and Economics* 19 (August 1976): 241–44; and Benson, "Regulation—the Demand and Supply."
 10. Stubblebine, "On Property Rights and Institutions," p. 10.
 11. In many cases, of course, regulatory authorities have power both to make property rights assignments and to enforce the assignments. (See Benson, "Observations on the Supply of Regulation.")
 12. Peltzman, "Towards a More General Theory."
 13. Warren Samuels, "Interrelations Between Legal and Economic Processes," *Journal of Law and Economics* 14 (October 1971): 444.
 14. Peltzman, "Towards a More General Theory," p. 217.
 15. Since elected representatives wish to meet the marginal conditions of the political exchange, it follows that the regulatory process should efficiently accomplish what it is designed to do (grant benefits to powerful special interests). For example, Posner concluded: "A corollary of the economic theory of regulation is that the regulatory process can be expected to operate with reasonable efficiency to achieve its ends. The ends are the product of a struggle between interest groups, but . . . it would be contrary to the usual assumptions of economics to argue that wasteful or inappropriate means would be chosen to achieve those ends" (Posner, "Theories of Economic Regulation," p. 350).
 16. See Benson, "Observations on the Supply of Regulation."
 17. William Niskanen, *Bureaucracy and Representative Government* (Chicago: Aldine-Atherton, 1971); and Niskanen, "Bureaucrats and Politicians," *Journal of Law and Economics* 18 (December 1975): 617–43.
 18. See Benson, "Observations on the Supply of Regulation."
 19. *Ibid.*
 20. *Ibid.*
 21. William Blackstone, *Commentaries on Laws of England* (Chicago: Callaghan and Co., 1899), pp. 127–28.
 22. Terry Anderson and Peter J. Hill, "The Role of Private Property in the History of American Agriculture, 1776–1976," *American Journal of Agricultural Economics* 8 (December 1978): 940.
 23. John Delafons, *Land-Use Controls in the United States* (Cambridge, Mass: The MIT Press, 1969), p. 33.
 24. See Linowes and Allensworth, *The Politics of Land Use*.
 25. Subdivision exactions, which require developers to dedicate part of their land as a park, are also examples of how landowners are forced by regulators to provide public recreational use of private land.
 26. William Whyte, *Securing Open Space for Urban America: Conservation Easements* (Washington, D.C.: Urban Land Institute, 1968), p. 16.
 27. Richard Stroup and John Baden, "Externality, Property Rights, and the Management of Our National Forests," *Journal of Law and Economics* 13 (October 1973): 303–305.
 28. American Forest Products Industries, *Government Land Acquisition* (Washington, D.C.: AFPI, 1965), p. 13.
 29. *Ibid.*, p. 7.

30. Healy, *Land Use and the United States*, p. 73.
31. See, for example, the discussion of state zoning in Wisconsin in Charles Geisler and Oscar Martinson, "Local Control of Land Use: Profile of a Problem," *Land Economics* 52 (August 1976): 371-82.
32. Raymond Vlassin, "Some Key Issues and Challenges Posed by Nonagricultural Demands for Rural Environments," *American Journal of Agricultural Economics* 53 (May 1972): 238.
33. Neal Greenwood and J. M. B. Edwards, *Human Environments and Natural Systems* (North Scituate, Mass.: Duxbury Press, 1973), p. 290.
34. Vlassin, "Some Key Issues and Challenges," p. 239.
35. Donald Levi, *Agricultural Law* (Columbia, Mo.: Lucas Brothers Publishers, 1976), p. 225.
36. Federal agencies, as well as many state agencies, can discriminate between spatially separated interest groups. In this way there can be differing property rights assignments, even under a common jurisdiction. Stroup and Baden pointed out, for example, that regional forest service supervisors often have power to assign rights (Stroup and Baden, "Externality, Property Rights, and the Management of Our National Forests," pp. 304-305).
37. Robert Deacon and Perry Shapiro, "Private Preferences for Collective Goods Revealed Through Voting Referenda," *American Economic Review* 65 (December 1975): pp. 943-55.
38. Bobo and Shulman, "Managing California's Coast," p. 76.
39. California Coastal Zone Conservation Commission Appeal No. 103-73.
40. For example, see Fred Bossleman, David Callies, and J. Banta, *The Taking Issue* (Washington, D.C.: Government Printing Office, 1973), pp. 318-19; Stroup and Baden, "Externality, Property Rights, and the Management of Our National Forests," pp. 150-57; and Healy, *Land Use and the United States*, p. 177.
41. Healy, *Land Use and the United States*, p. 177.
42. Benson, "Regulation—the Demand and Supply."
43. Harold Demsetz, "Some Aspects of Property Rights," *Journal of Law and Economics* 9 (October 1966): 67.
44. Healy, *Land Use and the United States*, p. 88.
45. See Melvin Greenut, *A Theory of the Firm in Economic Space* (Austin, Tx.: Lone Star Publishers, 1971).
46. There are other consequences of the uncertainty created by property rights reassignments. If the producer knew what his rights were going to be in the future he could choose the most efficient means of production, given those rights. When he is uncertain about future rights he may choose an inefficient means of production, given the rights assignments that do develop. Of course, under uncertainty the producer also tends to make fewer changes because he is less sure of the present value of future costs and benefits.
47. Greenwood and Edwards, *Human Environment and Natural Systems*, pp. 303-304.
48. Demsetz, "Towards a Theory of Property Rights," *American Economic Review* 57 (May 1967): 354-57.
49. *Ibid.*
50. *Ibid.*
51. Land being damaged is less productive so there is another difference in costs between producers near the urban areas and producers in more rural areas. Landowners near urban areas must spend more to repair damages and maintain productivity. Again, the rent received by more rural landowners is capitalized into the land values and the cost of production is higher. Product price must be higher and output lower relative to what it would be with rights assigned to private individuals.