Current-Use Property Assessment and Land Development: A Theoretical and Empirical Review of Development Penalties

Richard W. England

Lincoln Institute of Land Policy
Working Paper

Lincoln Institute Product Code: WP02RE1

Abstract

During the 15 years after 1982, the developed area of the U.S. grew by more than a third. In addition, developed regions became less densely populated—inevitably resulting in a loss of crop and grazing lands, forest cover and wetlands across the nation. Between 1960 and 1990, nearly all state governments responded to these land use trends by enacting statutes and constitutional amendments mandating current use, or use-value, assessment of certain categories of rural lands for tax purposes. This form of property assessment was intended to reduce financial pressures to develop rural parcels in the face of escalating market values. This paper seeks to explore whether current use assessment can protect rural lands from development, surveys the actual penalties operative in the various states during 2002, and speculates about which states are more likely to have effective land preservation programs.

About the Author

Richard W. England is the director of the Center for Business and Economic Research, and professor of economics and natural resources at the University New Hampshire, where he received the Jean Brierley Award for Excellence in Teaching for 2002. He is currently working on three research projects, an assessment of alternative methods to finance public schools in New Hampshire, forecasting the impact of state and local taxation on regional land use and economic development, and assessing the economic value of improved air quality and weather forecasting. In 2002 he was a presenter at the Western Economic Association International, and published articles in *State Tax Notes* and the *Boston Federal Reserve Bank Regional Review.*

Contact information:
Center for Business & Economic Research
McConnell Hall
University of New Hampshire
Durham, NH 03824-3593
Phone: 603-862-3335
E-mail: richard.england@unh.edu

Acknowledgements: Deniz Arslan provided valuable research assistance on this project.

Table of Contents

Current-Use Property Assessment and Land Development:
A Theoretical and Empirical Review of Development Penalties

I. Introduction

Growth of cities and metropolitan regions has fueled conversion of land from rural to developed uses in the United States for several centuries. Between 1982 and 1997 alone, the area of nonfederal developed land increased from 73¼ million to 98¼ million acres, an increase of 34.1 percent (Natural Resources Conservation Service). Population growth certainly helps to account for these land development trends. The estimated resident population of the U.S. rose from 231.7 million in 1982 to 267.8 million in 1997, an increase of 15.6 percent (Census Bureau).

Because the extent of developed land area grew more rapidly than human population during those years, it is clear that factors other than population growth have also driven recent land use changes in the U.S. Growing affluence is one possibility: During the decade and a half after 1982, per capita disposable income (in 1992 dollars) rose from $15,053 to $19,497, a gain of 29.5 percent (Bureau of Economic Analysis).

Assessing the precise set of causes of metropolitan sprawl is far beyond the scope of this paper. The fact of sprawl is hard to dispute, however. During the 15 years after 1982, the developed area of the U.S. grew by more than a third. In addition, developed regions became less densely populated. In 1982, there were 3.16 residents per developed acre. By 1997, that measure of population density had fall to 2.73 inhabitants per developed acre. Urban tenements and townhouses have been joined by mansions, bungalows and manufactured homes outside the city.

These long-term trends in metropolitan growth have inevitably resulted in loss of crop and grazing lands, forest cover and wetlands across the nation. Between 1960 and 1990, nearly all state governments responded to these land use trends by enacting statutes and constitutional amendments mandating current use, or use-value, assessment of certain categories of rural lands for tax purposes. Maryland was a pioneer in this land preservation movement when its state government provided in 1960 that farm, forest and marsh properties should be assessed on the basis of their current, not 'highest and best,' uses. This form of property assessment was intended to reduce financial pressures to develop rural parcels in the face of escalating market values.

An important question for public policy research is whether current use assessment can protect rural lands from development. Theoretical research by England and Mohr*[1] suggests that current use assessment can defer, but not permanently prevent, development of land on the metropolitan fringe. That possibility is explored in Section II of this paper, where it is argued that 'the devil is in the details' of current use assessment. More specifically, the particular form of penalties imposed when land is removed from current use programs will affect the enrollment rate in those programs and the dates at which enrolled parcels will be developed. Section III of this paper surveys the actual penalties operative in the various states during 2002. Section IV speculates about which states are more likely to have effective land preservation programs.

II. Theorizing the Land Development Decision

Suppose that a property owner faces the decision whether and when to develop a rural land parcel. It is reasonable to assume that she will choose a development date, D, so as to maximize the present value of land ownership. (In a remote rural region, that date could be far in the future.) This present value calculation will be governed by the pecuniary (and perhaps nonpecuniary) benefits of undeveloped use, the prospective pecuniary benefit of developed use, the tax assessment of the property before and after development, the property tax rate applied to the assessed value, the development penalty (if any), and the owner's discount rate.

If the landowner's development decision were unaffected by property taxation, then she would choose to develop her parcel when the annual rents from urban use grew to reach the annual rents from rural use, call that moment H. However, landowners <u>are</u> sensitive to property taxation as they contemplate development. In addition, current-use assessment can affect the magnitude of their tax bills favorably, now and in future years. Hence, both the property tax rate and also assessment practices will affect the dates of development of private parcels on the metropolitan fringe.

If a parcel of rural land has already been enrolled in a current-use assessment program, then it is very likely that the owner will develop her property later than she would in the absence of property taxation. That is, moment D will be deeper into the future than moment H. One reason is that the owner enjoys property tax savings as long as the parcel remains undeveloped and enrolled in current use. An additional reason is that the present value of any magnitude of development penalty tends to decline as the development date recedes into the future. Only if the magnitude of the development penalty grows rapidly as the parcel remains enrolled in current-use is there some pressure to develop sooner

---

[1] Richard W. England and Robert D. Mohr, "Property Taxation and Current Use Assessment: A Theoretical Note," submission to *Agricultural and Environmental Economics Review*, July 2002

rather than later. Analysis of the landowner's present value calculation suggests the set of correlations summarized in Table 1.

So far, this theoretical argument has presupposed that rural lands have already been enrolled in current use assessment programs. In many states, however, the landowner must actively apply for that property classification. Will she do so? That depends on several influences. The net benefit to the landowner from deciding to enroll her parcel hinges on three factors:

- the present value of tax savings from current use assessment until moment D
- the present value of the penalty imposed at moment D, and
- the present value of the rents foregone between moments H and D because development has been deferred.

Table 1: Influences on Development Date of Parcels Already Enrolled in Current-Use Assessment Program

Influence on Decision	Impact on Date
higher rents from rural use	Later
higher rents from urban use	Sooner
higher property tax rate	Later
higher discount rate	Sooner
higher penalty level	Later
escalating penalty over time	Sooner

Source: England and Mohr (2002)

The first of these influences is an important financial incentive favoring enrollment. Once the highest and best use of a parcel is a developed one, the market value of that parcel will exceed its current use assessment. Hence, a landowner whose property is escalating in market value because of metropolitan expansion can lower her property tax bill by enrolling.

That tax motive has to be weighed against two other influences that discourage enrollment, however. By keeping her parcel undeveloped to realize the property tax saving, the owner will forego the annual difference between urban and rural rents after moment H. When the allure of escalating urban rents is too hard to resist and she eventually develops her parcel (or, more realistically, sells to a developer), a substantial penalty may have to be paid. These are two reasons for hesitating to enroll in the first place.

It seems, then, that the precise design of a current use assessment program will affect the percentage of rural landowners who choose to participate at all. If there is no penalty imposed at the moment of development, then nearly universal participation should not be surprising. If, on the other hand, most of the tax savings enjoyed during the period of current use enrollment would be recaptured at the time of development, plus interest, then participation is likely to be meager. The reason is that deferring the date of development beyond moment H costs the landowner a potential net gain in rents from urban use. If the property tax saving equals the development penalty, in present value terms, then participation would impose a net loss on the owner.

III. An Empirical Survey of Development Penalties

Exactly what sorts of development penalties, if any, have been enacted by the 49 states with current-use assessment programs? I have explored that question by visiting state government websites and searching their revised annotated statutes for relevant passages. In some cases, phone interviews with state tax officials helped with the interpretation of statutory language.

My findings are that the states fall into three categories:

- those states that impose no penalty at all when a parcel is removed from current-use property classification (no-penalty states),
- those states that collect several years of tax savings, plus interest, for the period immediately prior to development (rollback states), and
- those states that collect a penalty based upon the market value of the property at the time of its development (percent-payback states).

There are 15 states that permit use-value assessment of agricultural and perhaps other rural properties and that do not collect a penalty when a landowner withdraws a property from current-use classification. (See Table 2.) What is striking about this list is that, with the exceptions of Arizona and Florida, these are relatively rural states without rapidly growing metropolitan regions. Perhaps enactment of current-use assessment in these states was originally motivated more by a desire to grant tax relief to farmers and ranchers than by a desire to deter metropolitan sprawl.

Table 2: Current-Use Assessment States with No Development Penalty (2002)

Arizona	Montana
Arkansas	New Mexico
Florida	North Dakota
Idaho	Oklahoma
Iowa	South Dakota
Kansas	West Virginia
Louisiana	Wyoming
Missouri	

Sources: State revised annotated statutes and phone interviews with state tax officials.

Another seven states fall into the percent payback category; that is, they collect a penalty based upon the market value of a parcel during the year it no longer qualifies for current-use assessment because of a land use change. As summarized in Table 3, California, Maryland, New Hampshire and Vermont simply collect a fixed percentage of market value during the year of property reclassification. Three other states (Connecticut, Maine and Rhode Island) employ a sliding scale version of this type of penalty: The percent of market value collected as a penalty declines with the number of years that a parcel has been enrolled in current-use.

Far more common than the percent-payback penalty is the rollback penalty, a development deterrent utilized by 26 states. In these jurisdictions, a landowner must pay the difference between taxes actually paid during recent years of current-use assessment and the taxes that would have been paid with market-value assessment, plus accrued interest.

As shown in Table 4, the maximum number of years of tax reimbursement for which a landowner is liable during the year of property reclassification varies greatly among these states. In Indiana, for example, a farmer who decided to convert his land into a residential subdivision might owe the tax collector ten years of tax savings, plus interest. In nearby Illinois, on the other hand, a farmer in a similar situation would owe only three years of tax savings and accrued interest.

Table 3: Current-Use Assessment States with Percent-Payback Penalties (2002)

California	12.5 percent of market value, with local option for higher percentage
Connecticut	10 percent of market value during first year of classification, with percentage falling to zero after 10 years of classification
Maine	open space: 6 percent of market value if 10 or fewer years, falling to 4 percent if 20 or more years of classification forest: 30 percent of difference between market and current use values if 10 years or less, falling to 20 percent of difference if 20 years or more
Maryland	5 percent of market value if parcel size ≥ 20 acres 4 percent of market value if parcel size < 20 acres
New Hampshire	10 percent of market value
Rhode Island	10 percent of market value if six or fewer years, falling to zero percent if 15 or more years of classification
Vermont	20 percent of market value

Sources: Same as Table 2.

Table 4: Current-Use Assessment States with Rollback Penalties (2002)

Maximum Number of Years of Tax Savings Recaptured	State
10	Delaware Hawaii (Honolulu County) Indiana Oregon (if exclusive farm use zone)
7	Alaska Colorado Washington (plus 20 percent added to tax savings plus accrued interest)
6	Nevada Pennsylvania
5	Maine (farmland) Massachusetts (forest) Nebraska New York (5x tax saving of most recent year) Oregon (if not exclusive farm use zone) South Carolina Tennessee (open space) Texas Utah Virginia
4	Massachusetts (farmland)
3	Alabama Georgia Illinois Minnesota North Carolina Ohio Tennessee (farms and forest)
2	New Jersey Wisconsin

Sources: Same as Table 2.

IV. Incentive Effects of Current-Use Development Penalties

Because development penalties associated with current-use assessment programs vary significantly among the states, one would expect to observe interstate differences in the impact of current-use on the development decisions of private landowners. In the fifteen states without development penalties, for example, the incentive to enroll properties with market values greater than their rural use values is very strong. At the same time, property owners are unlikely to leave their parcels enrolled for very long once metropolitan growth pressures have arrived in their communities. Hence, one might expect a relatively brief opportunity in states like Florida and New Mexico to preserve undeveloped land, e.g. by public acquisition of development rights, once metropolitan development has arrived.

In states with percent-payback penalties, landowners face a quite different set of incentives. The prospect of paying 20 percent of a property's market value at the time of development, for example, discourages enrollment by the Vermont landowner. Once a parcel has been enrolled, however, its owner is likely to keep it in an agricultural or timberland use well beyond the moment when urban uses are more highly valued by the market.

That conclusion needs to be qualified in the case where rapidly <u>escalating land prices</u> imply an <u>escalating penalty</u> if the moment of development is deferred. The Vermont landowner who faces high, but stable, land prices is inclined to keep her parcel in current use. The Vermont landowner who faces low, but rapidly increasing, land prices is inclined to remove her parcel from current use and develop the property.

This tendency to develop is reduced in sliding-scale penalty states such as Connecticut, Maine, and Rhode Island. In these cases, a declining percentage applied to market value when the penalty is calculated tends to offset escalating land prices in the owner's land development timing decision. Thus, in that trio of states, one would expect parcels to remain enrolled for a longer period, ceteris paribus, than in other percent-payback states.

Finally, in the 26 states with rollback penalties, one would expect owners in New Jersey and Wisconsin to be eager to enroll their properties for current use assessment because they face the prospect of paying only two years of tax savings as a development penalty. At the same time, owners in those two states are unlikely to hesitate to remove their properties from rural uses once development pressures have arrived in their communities.

At the other extreme, one would expect that landowners in Delaware, Indiana and Oregon would hesitate to enroll their rural properties for current use assessment because of the heavy prospective rollback penalty (up to ten years of tax savings plus accrued interest). For properties already enrolled in those states, however, the landowner would probably defer development until potential urban rents are well above actual rents from rural uses.

It should be noted that these predictions about interstate differences in the incentive effects of current-use development penalties are theory-based hypotheses. Empirical verification of these hypotheses would require collection and econometric analysis of land use change data for the 50 states of the union.