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Intestate Succession and Heir Property: Implications for Future Research on the Persistence of Poverty in Central Appalachia

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When a person dies without a will, the State effectively supplies a will by default via the laws of intestate succession. The laws of intestate succession may trigger a transfer of *real property* – "Land, and generally whatever is erected or growing upon or affixed to land" (Black 1983, 636) – in the form of tenancy in common. Tenancy in common is a form of joint ownership in which cotenants have an undivided partial interest in property. If a cotenant dies intestate, any interest in property passes to his heirs (Black). An undivided partial interest allows a cotenant (subject to the rights of other cotenants) to use the entire property as if it were his own regardless of the size of his partial interest in the property. Tenancy in common that is the result of an inter-generational transfer of property through intestate succession is often referred to as heir property (Mitchell 2001). Tenancy in common is a legal form of real property and is not necessarily the result of the laws of intestate succession. Some people choose to hold property as tenants in common. Some purposefully will their property to their heirs as tenants in common. In this paper, I use the term heir property to refer to property that is held in tenancy in common as a result of the laws of intestate succession.

My focus on intestate succession results in part from the fact that poor people are more likely than others to die without a valid will (AARP 2000). Hence, any economic consequences associated with the laws of intestate succession will be of greater significance to low income people and the regions where they live. The prevalence of poverty is not evenly distributed across rural America. Pockets of poverty persist. The Appalachian Region, Indian Reservations and the Ozarks are notable rural examples. Since intestate succession may be endemic to these areas, it is important to further examine its influence on property ownership and any subsequent economic consequences.

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In this paper, the link between the laws of intestate succession and heir property is developed and the theory of the anticommons provides a model for developing a hypothesis about the economic consequences of heir property. Much of the legal and empirical evidence comes from Kentucky law and from research conducted in Letcher County, Kentucky – an economically depressed county within the coal fields of central Appalachia. While the case evidence in this paper comes primarily from Kentucky, concern about the relationship between co-ownership, inheritance, and poverty appears to be relevant to other regions of the world and the United States. Vranken, Noev and Swinnen's (2004) study of the Bulgarian land market identified inheritance law as a primary reason for co-ownership. According to their survey, ". . . 40% of the parcels owned by rural households are co-ownership and can not be divided among the owners by law." They conclude that co-ownership is a key reason for the abandonment of land. Mitchell (2001) identifies heir property as a prevalent form of ownership within low-income rural African-American communities; and he suggests that this prevalence is due to the tendency of rural African Americans not to make wills. Shoemaker (2003) identifies a similar issue on Indian reservations: "In Indian Country today, fractionation has reached crisis proportions. Hundreds of co-owners share small pieces of land as tenants in common . . . the result on the ground is realistic deprivation of any of the other potential benefits of land ownership. Homelessness and poverty persist . . ." (730). These writers all suggest that this form of property is problematic, but none develop a theoretical basis for understanding its economic effects.

Recent economic literature provides a useful framework for examining the economic consequences that may result when a large number of cotenants each have a right to exclude certain activities on a shared parcel of land. Buchanan and Yoon (2000) developed an economic model of the *anticommons problem*. "An anticommons problem arises when there exist multiple rights to exclude" (1). Unlike the "Tragedy of the Commons" (Hardin 1968), where the resource is over-exploited because many have privilege to use a resource but no one has a right to exclude, the Pareto inefficient outcome in the "Tragedy of the Anticommons" (Heller 1998) is characterized by under-use of the resource. Buchanan and Yoon identify the basic logic behind this result: ". . . persons (or firms) may, by reducing inputs to the common facility . . . , reduce the rents available to others who also exercise potential exclusion rights" (4). They go on to demonstrate an inverse relationship between resource rent and the number of individuals (or firms) with the right to exclude. This is particularly relevant to the problem of heir property because, as discussed below, the number of cotenants may be extremely high.

In this paper, I extend the theory of the anticommons to the issue of heir property and develop a hypothesis that heir property may constrain economic development. In later sections I will suggest that the hypothesized relationship resonates with the work of Hernando de Soto (2000) who argued that "dead capital" – assets whose ownership character is such that the asset cannot effectively be leveraged into additional investments by their owners – constrains economic development in developing countries. Throughout this paper, the Kentucky laws of intestate succession provide the legal basis for developing the relationship between inheritance law and ownership fractionation. In addition, I provide case example evidence from a persistently poor county in eastern Kentucky – Letcher County – to further buttress the formulation of the hypothesis that heir property may be a factor constraining economic development. Anticipating the remaining discussion a bit, it should be clear that I am not arguing that heir property is the only factor contributing to the persistence of poverty. Rather, I am arguing that the issue of heir property is understudied and I provide theory and evidence to support future research in this area.

The most comprehensive study of land ownership in Appalachia, *Who Owns Appalachia?*, was conducted by the Appalachian Task Force (ATF 1983). However, the ATF study focused on corporate and absentee ownership, not on the character of property held by most residents. Simply put, ATF's study told area residents much about what others own, yet very little about the character of the property held by non-corporate landowners.

In the following section, I examine the Kentucky laws of intestate succession and explain how this set of institutions can lead to an increasing number of cotenants over time. Some evidence of the pervasiveness of heir property is also provided. The third section discusses how heir property leads to multiple cotenants, who each exercise the right to exclude some uses of the land. This discussion provides a situational context for examining the tragedy of the anticommons which is discussed in section four. In the fifth section, I provide evidence of transaction costs. The evidence of transaction costs helps explain why heir property may persist despite its presumed economic disadvantages. In section six, I further develop the hypothesis between heir property and economic development. In the final sections, I summarize the key elements of this paper and identify future research needs.

Kentucky Laws of Intestate Succession and Co-Ownership

Intestate means dying without providing a valid will (Black 1983). When a person dies intestate in the United States, the statutory laws of intestate succession allocate the deceased's property to the spouse and the heirs. These laws are generally significant because, according to a survey conducted by the American Association of Retired Persons (AARP 2000) Research Group, only 60% of adults age 50 or older report having a will (AARP). The death of someone who does not have a valid will sets in motion intestacy laws that vary considerably across states (Lomenzo 1995). This variation alone is worth noting because it identifies the laws of intestate succession as a source of institutional variation within the United States, an issue that has been largely ignored by economists.

The application of the laws of intestacy will also vary across demographics. AARP found that the percentage of adults having a will varies by household income and education. For example, 54% of adults age 50 or older, who were also in the $15,000-$24,000 household income bracket, have a will. This percentage is in sharp contrast with adults age 50 or older whose household income is greater than $50,000;

AARP finds that 74% of these adults have a will. Education matters as well. Only 51% of adults age 50 or older with a high school education or less have a will, while 80% with a college degree or higher have a will. Hence, where pockets of poverty and low education persist, the economic and social effects of the laws of intestacy are likely to be relatively widespread and intense.

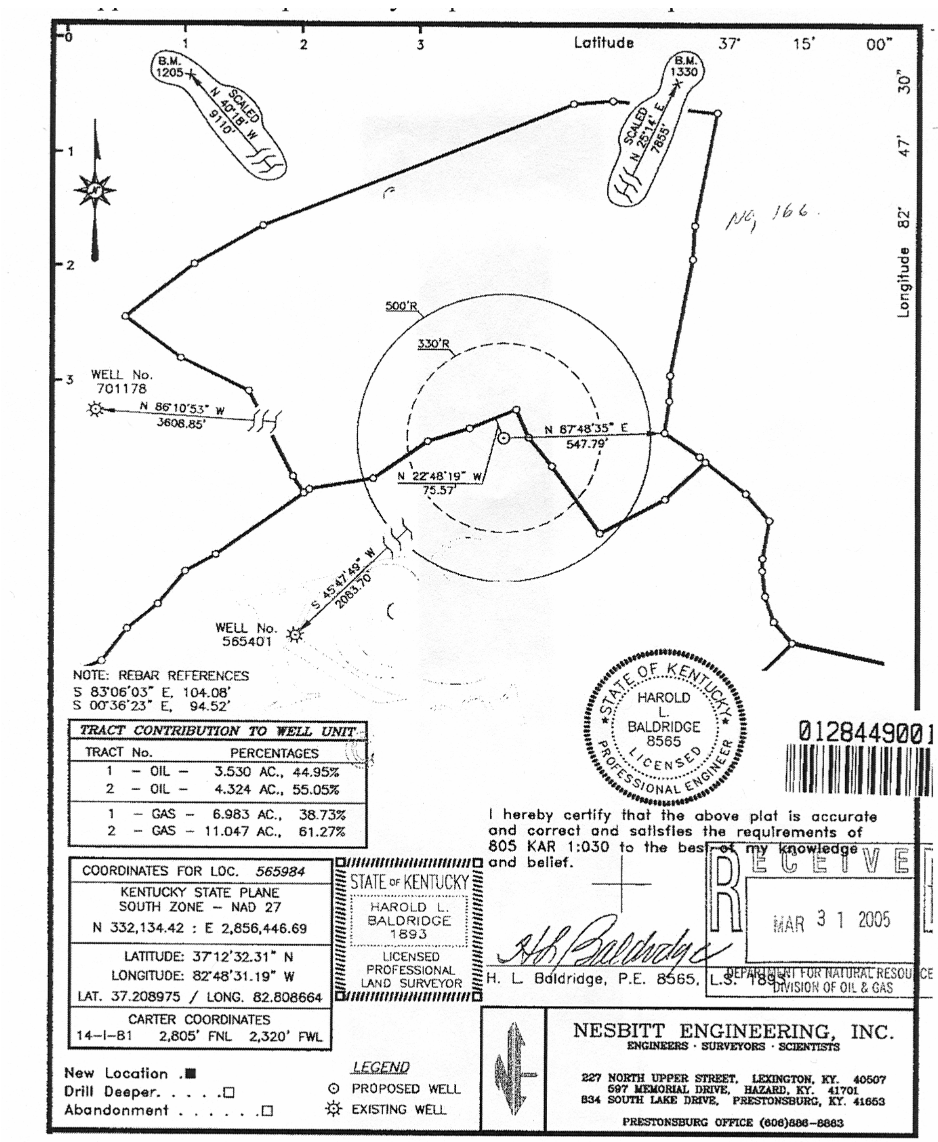
In Kentucky, the legal framework that forms the laws of intestacy includes the laws of descent and distribution as well as marital right (Kentucky Legislature, KRS 391).[1] The following example clarifies the relationship between the Kentucky laws of intestate succession and heir property. Suppose a landowner dies intestate and is survived by a spouse and five children. Under Kentucky law, unless the deed itself contains a right to survivorship for the spouse, the surviving spouse would receive 50 percent of the real property, in an undivided form, and become a tenant in common with the children who each receive a partial undivided interest in the remaining 50 percent. Tenancy in common is "a form of ownership whereby each tenant (i.e., owner) holds an undivided interest in property . . . interest of a tenant in common does not terminate upon his or her prior death (i.e., there is no right of survivorship)" (Black 1983, 763).[2] In the above example, each child would have a one-fifth interest of the one-half interest in the original property, or 10 percent interest in the whole property.

The spouse and children can continue to hold the property as tenants in common, or they can pursue legal action in the circuit court to have the land partitioned or sold. (They can also sell their partial interest to other cotenants and/or buyers outside the family. A purchaser of a partial interest becomes a tenant in common with other cotenants.) Should they continue common ownership, the number of common owners may increase over time. Suppose one of the five children dies without a will and has five children. In this situation the newly deceased owner's partial (10 percent) undivided interest would be passed on to the next generation and each of these children would hold a one-fifth interest in the one-fifth interest of their deceased parent. Through successive generations, the number of cotenants with a partial interest in a specific piece of property may grow. Some cotenants may own a very small fraction of the interest in the property. In one Letcher County partition case, *Cook v. Aguayo*[3], twenty heirs held a partial, undivided interest in a single tract of land that was approximately one acre in size. The size of these interests ranged from 78.84 percent to 0.1923 percent. It is of primary importance to note that as a consequence of tenancy in common, the cotenant with .1923% has the same set of rights to access and use the property as the cotenant with a 78.84% interest.

Prevalence of Tenancy in Common in Central Appalachia: The Case of Letcher County

To better understand the prevalence of tenancy in common, a colleague and I examined land title information generated by the Equitable Production Company (EPC), an oil and gas well drilling company.[4] The EPC produces curative reports that provide a complete surface and mineral title chain for a well site. The curative report provides information on both surface and mineral ownership associated with a drill site. In addition, the report includes title information for one of the surface areas lying on a mineral tract located within a 500 foot radius of the well drill site. Figure 1 provides an illustration. The thick lines represent two separate tracts. In this situation, the EPC gathers two separate title searches. One title search identifies ownership of the surface drill site and the mineral tract and the other examines the surface tracts lying on a mineral tract within the 500 foot radius.

Figure 1: Survey Map of Well Site and Mineral Tracts



On June 23, 2005, an initial sample of well sites was drawn from the Kentucky Geological Survey (KGS) online oil and gas well database. The initial sample was identified by entering "Equitable Production Company" in the "Operator Names" search field. Equitable Production Company was used in the online search because EPC representatives were willing to share their curative reports. The search returned 668 records, 54 of which were located in Letcher County. Curative reports were available for 23 of the 54 well sites in Letcher County. From these 23 curative reports, 48 distinct tracts were examined.[5]

Of the 48 tracts, seven (14%) were owned as tenancy in common. While the prevalence of the phenomena was consistent with my *a priori* expectations, the average number of heirs was relatively small, approximately 4 co-owners per tract. Based on the examination of legal partition cases (discussed below) and two years work experience in Letcher County, I expected the number of cotenants to be much higher. An EPC staff member gave one plausible explanation: when properties appear to have high numbers of cotenants (20 or above), based on the preliminary research conducted by the EPC, these tracts are often avoided. The EPC staff member suggested that this screening process occurs in order to avoid the high costs of coordinating contracts across a large group (Profitt 2006). It is reasonable to assume, therefore, that evidence from the EPC curative reports provides a conservative estimate of the phenomena of tenancy in common in Letcher County.

Tenancy in Common and Multiple Exclusion Rights

The general rule for tenancy in common is: ". . . a cotenant who goes upon and utilizes land in which he has an undivided interest does not commit a trespass against his cotenant. He has a lawful right to use and enjoy the common estate . . . Subject to the rights of his cotenants, a cotenant of real property may use and enjoy the common estate in the same manner as though he were the sole proprietor. Subject to the rights of his cotenants, he may occupy and utilize every portion of the property at all times and in all circumstances" (*Taylor v. Bradford*).[6]

A key element of the rule is that one cotenant's use of the common property is subject to the rights of other cotenants. With respect to timber, it has been established in Kentucky case law that a cotenant does not have the right to logging without consent of the other cotenants. For example, the 1917 Kentucky case of *Emmons vs. Evans*[7] involves a situation where a cotenant sold the timber without the consent of the other cotenants. In deciding the case, an opinion from the court of appeals made it clear that one joint tenant cannot, without the consent of the other joint tenant, sell timber.

With respect to other uses of the land, the right of each cotenant to utilize the surface area, as if it were his own, may effectively preclude any activity to which there is not joint consent. For example, suppose cotenant *A* wants to grow corn on all the land and cotenant *B* wants to grow wheat. Both have the right to do this subject to the rights of the cotenant. Since these activities are mutually exclusive they will have to work out some arrangement. Failure to reach an agreement may effectively lead to the land not being used at all as the incentive for one person to cultivate the land may be reduced by the right of the other to do the same. Alternatively, this situation may lead to incentives to legally partition the land. However, as I discuss in a later section, the costs of legal partition may be such that they exceed the expected benefits of partition. In these situations, non-cooperation amongst cotenants (each exercising an exclusion right) may effectively preclude uses of the land and legal remedies may not be sought.

The Kentucky statutory laws regulating timber appear to differ from those that regulate minerals. The often cited case of *Taylor v. Bradford*[8] involved one heir with one-sixteenth interest who sought damages for the coal removed by other joint owners without her consent. In this case, Taylor argued that her cotenants were trespassing since (at some point) they were aware of her ownership interest. In this case, the opinion of the court is that a tenant in common can, without consent, develop and operate common property for oil and gas. Given the above examples of case law in Kentucky, the characterization of heir property, as allowing each cotenant to effectively exercise a right to exclude certain activities, seems appropriate with respect to surface uses of the property such as timber. However, there are likely to be some uses of the land (mineral uses) where a cotenant cannot effectively prevent another cotenant from using real property.

Heir Property and the Anticommons

Buchanan and Yoon (2000) provide both a graphical and mathematical model of the tragedy of the anticommons. They also explain the symmetric relationship between the tragedy of the anticommons and the tragedy of the commons. Their analytical approach refines Michael Heller's (1998) characterization of the anticommons and the consequences thereof.

An anticommons situation exists when multiple co-owners each exercise the right to exclude the use of a jointly owned resource (Buchanan and Yoon 2000). In this situation, like the tragedy of the commons, the resource rent may be diminished as a result of the ownership structure. However, in contrast with the tragedy of commons where the resource rent is dissipated because of overuse; the tragedy of the anticommons results in a dissipated resource rent because the resource is under used or "wasted."

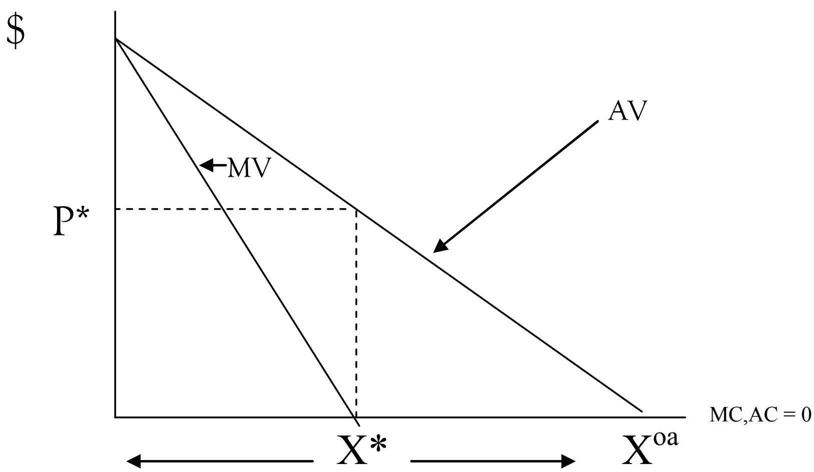
My intention in the following paragraphs is to develop the intuition behind the anticommons scenario by contrasting it with the more familiar ownership scenarios of sole ownership and common property. My approach draws heavily from the analytical discussion provided by Buchanan and Yoon. In each ownership scenario, I assume a product, *Y*, is produced by a fixed non-partitionable input, **L,** and a complementary input *X*. (The scenarios will differ depending on how **L** is owned.) The price of product Y is assumed to be constant and exogenous. The marginal and average value product of each additional *X* depends on the total level of *X* applied to **L** and, in these scenarios, is assumed to decline linearly as in Figure 2. For simplification purposes, the marginal cost of *X* is assumed to be zero. However, owners of **L** may charge a permit price, *P*, for the right to apply X to **L**. In this way, owners of **L** are able to earn a scarcity rent which is equal to the permit price multiplied by the quantity of X applied.

What varies in each scenario – i.e., sole ownership, open access, and the anticommons — is the ownership structure of the fixed input **L**. Different ownership structures influence the scarcity rent that can be earned. Under sole ownership of **L**, the owner is assumed to charge a permit price that maximizes resource rent. In Figure 2, this price is P^* and results in a variable input level of X^*.

In the open access scenario, classically characterized as the tragedy of the commons, each user has the privilege to apply X to **L**, but no one has the right to prevent use. In this scenario, the complementary input X is simultaneously applied by different users each of whom realizes the average value product of X. Each owner fails to fully internalize the effect that their use of the resource has on others. Hardin (1968) argued, for example, that the effects of overgrazing were shared by all herdsmen on the commons and, therefore, the herdsman considered only a fraction of the costs when deciding whether or not to introduce an additional animal to the commons. Hence, each additional user of **L** imposes an external diseconomy on other users. In this scenario, each user is separately exercising their privilege to use the fixed resource and continues to apply X until net-benefits of doing so are zero. In Figure 2, where the marginal cost of X is assumed to be zero and there is no price charged for using **L**, X will be applied until the average benefits are equal to zero, X^{oa}, and all potential scarcity rents are dissipated.

The resource allocation that results from the tragedy of commons – as depicted in Figure 2 – describes a Pareto-inferior Nash equilibrium. The equilibrium is Pareto-inferior because some scarcity rent could have been gained by limiting use of

Figure 2: Symmetric Tragedies[9]



L and charging a positive permit price. The resulting positive scarcity rent would benefit someone – e.g., an owner or group of owners – at a level that would offset the foregone net-benefits of a user. (In the classic description of the tragedy of the commons, each user receives zero net-benefits.) The equilibrium is a Nash Equilibrium because each user's decision is rational given complete information about the strategy of the other users.

The tragedy of the anticommons, like the tragedy of the commons, is also a Pareto-inferior Nash Equilibrium. Simply put, an alternative application of the variable input could make at least one owner better off without harming the welfare of any other. In these scenarios, the Pareto-inferior Nash equilibriums rest on the assumption that the users or co-owners do not cooperate – i.e., Coasian bargains are disallowed (Buchanan and Yoon, 2000). As in Buchanan and Yoon (2000), the non-cooperation assumption is maintained throughout the theoretical discussion and this assumption allows for the Pareto Inferior equilibrium that characterizes the "tragedy." In the forthcoming portion of the paper I argue that the presence of high transaction costs provides a basis for explaining why non-cooperation may persists.

In the anticommons situation, there are multiple owners of **L** and each has the right to exclude a potential user – someone seeking to apply X to **L**. In these cases, a potential user must purchase the right to use **L** from each co-owner who separately but, simultaneously, sets a price. In setting the price for an additional use of **L**, the co-owner takes into consideration the increase in revenue that will result from a higher price but fails to internalize the effect that a higher price will have on the revenue of other co-owners. Buchanan and Yoon (2000) demonstrate that an anticommons situation leads to an equilibrium price that is higher than the optimal price. In Figure 2, an anticommons scenario leads to a price that is greater than P^* which characterizes a less than efficient level of resource use and revenue. In the extreme situation in which the number of co-owners is high, the tragedy of the anticommons results in a price level that prohibits any use. In this scenario, the value or resource rent from **L** remains un-captured or wasted.[10] The arrows provided in Figure 2 illustrate the departure from the efficient level X^*.

The Tragedy of the Anticommons: Transaction Costs

The calculus of the tragedy of the anticommons assumes that the owners of the common resource do not cooperate. Though the assumption of non-cooperation among tenants in common has been understudied, there is some evidence to suggest that it may characterize co-tenancy. In a previous study, I interviewed households in Letcher County, Kentucky to better understand ownership perceptions (Deaton 2005). The empirical results led me to conclude that respondents who held heir property were more likely than sole owners to indicate that their form of property ownership limited their capacity to use the property (Deaton 2005). Dagan and Heller's (2001) writing on the issue of heir property and the history of African American farm ownership, more explicitly suggests non-cooperation:

> Over time, practical problems become unresolvable. Under American law of co-ownership unless fractional owners unanimously consent, the underlying land cannot be managed in any useful way; nor can it be mortgaged; nor can any discrete fraction of the land be sold. Without effective democratic self-governance mechanisms for co-owned property, "[h]eir property is rarely improved or developed, due to the threat of partition sales and the difficulty of obtaining credit on partial interests in the property. In fact, a third more heir than non-heir property is not being used at all." (606)

In situations where potential mutual gains are foregone, one wonders why this form of ownership persists. Put simply, why wouldn't cotenants choose another form of property ownership? Coase (1960) argued that *transaction costs* may preclude certain market transactions. Transaction costs are the costs of carrying out a market transaction. These costs include the costs of acquiring information, the costs of coordinating and negotiating an exchange, and the costs of establishing, enforcing, and verifying contracts and property rights (Coase 1960).

While transaction costs are difficult to measure, an examination of legal partition cases provides evidence of their potential significance. A cotenant has two primary legal options for dissolving tenancy in common, partition in kind and partition by sale. Partition in kind physically divides the property into shares based on partial ownership interests, while a partition by sale forces the sale of the entire real estate and, subsequently distributes proceeds to each owner according to their partial interest. The Kentucky Revised Statutes (KRS), section 389A.030, presumes indivisibility of the property unless a cotenant raises the issue of partition in kind, in which case the court must be satisfied that the partition in kind does not reduce the value of any interest. The common law has developed a bias against partition in kind and despite ". . . the law's nominal preference for partition in kind, courts usually order a partition sale because the number of heirs and limited size of the property make physical division impracticable" (Dagan and Heller 2001, 607).

A review of a number of legal partition cases involving property in heirs (i.e., tenancy in common) identified a number of situations in which high numbers of heirs face significant transactions costs to legally partition property. In addition, these cases provide a basis for understanding why legal partition may not occur. One Letcher County case reveals how high the number of cotenants can be. In *Swan Fork Coal Company v. The Heirs or Assigns of W. Potter,*[11] the Swan Fork Coal Company petitioned for the sale of jointly owned real property interest, gas and oil. In this case, Swan Fork Coal Company had 8/14 interest while the remaining 6/14 interest was jointly held by 156 cotenants. The number of cotenants was so high that the court rejected partition in kind because physical division would impair value such that the resulting size of several tracts would be as small as a few feet in diameter.

In some cases the court costs may even exceed the sale price. For example, in *Cook vs. Aquayo*[12] the court ruled for a partition by sale and the property sold in

2003 for $1000 (purchased by one of the cotenants). However, the attorney fees totaled greater than $2,482.47 and, subsequently, the plaintiffs paid the remainder. Other cases confirm the relatively high legal costs involved. In one partition case involving heirs, *Fields v. Gilley*[13], the property sold in 2004 for $16,000 dollars. Twenty-seven percent ($4,413) of the final sales price was used to cover the legal transactions. These transactions include payments to the Master Commissioner, the filing fee for action, the costs of a legal title search/opinion and attorney fees. An additional point of interest in this case is that more than half of the addresses provided in the order for distributing the proceeds of the sale were to addresses outside the state of Kentucky.

The time involved to resolve these cases is also worth noting because the perceived benefits of partition will depend, in part, on the length of the legal process. Moreover, the legal outcome is not always certain. In July 2005, my colleague and I identified thirteen heir's partition cases in Letcher County between 2000 and 2004. Eight of these cases were completed and the average time for completion was 653 days. Two other partition cases were dismissed after more than 500 days.

The legal evidence presented thus far identifies a number of factors that may contribute to the level of transaction costs – e.g., the number of heirs, their geographic dispersion, and legal costs. While the legal cases signal high transaction costs, they are *prima facie* evidence that cotenants have acted despite high transaction costs and complex property ownership histories. What remains unknown is the extent to which these legal cases represent the tip of the iceberg – exceptional property heir situations where transaction costs are overcome – or whether these cases are representative of the bulk of cases in which cotenants are dissatisfied. If the latter characterizes the situations in some areas of the county, then it may be that a significant portion of heir property is suffering the tragedy of the anticommons.

Dead Capital

In the above sections, I discussed a social arrangement – the laws of intestate succession and heir property– that may, in part, explain situations where many co-owners have rights to the same parcel of land. In these situations, the theory of the anticommons provides a framework for suggesting that the productive value of real property may be wasted and the benefits of resource ownership diminished. The consequences of the tragedy of the anticommons have thus far been discussed in a static setting. However, the economic effects are also dynamic. Indeed, it is the dynamic effect that may further illuminate the link between the laws of intestate succession, heir property, and the persistence of poverty.

One approach is to treat real property – e.g., land – as a form of capital whose productive capacity depends, in part, on the underlying social arrangement (Coase 1960). In discussing the term capital, Hayek (1941) writes, "[t]he term capital itself, in so far as it is required to describe a particular part of the productive resources, will accordingly be used here to designate the aggregate of those non-permanent resources . . . " (54). Two key words – productive and non-permanent –

clarify his intended meaning. I take Hayek's statement to imply that capital is a subset of resources that are productive. Second, I believe the essence of Hayek's use of the term non-permanent is that the productive capacity of capital requires ". . . replacement if they are not to disappear" (Lester 2000, 27).

While classical economists viewed land or soil as permanent, recent evidence suggests that land and its productive capacity depend on both use and reinvestment. This is especially true in the agricultural sector. For example, Foley et al. (2005) note that up to 40% of global croplands are experiencing some degree of soil erosion, reduced fertility, or over grazing. To maintain and enhance the productive capacity of land, world producers have invested heavily. During the last 40 years there has been a 700% increase in global fertilizer and a 70% increase in irrigated cropland area (Foley et al. 2005).

Institutional arrangements also influence the permanence of land as a productive resource. Hitherto, I described a social arrangement – heir property – that may, in some situations, lead to the tragedy of the anticommons. In these situations, the form of property ownership actively determines the extent to which land could act as a productive resource. In some cases, unless investments are made to alter the form of property ownership, the productive capacity of land may be greatly diminished even wasted.

The capacity of an asset to be borrowed against and leveraged into new assets is the chief characteristic of capital for De Soto (2000). In his book, *The Mystery of Capital*, De Soto (2000) recognizes a fundamental role for property. He argues that property is the key to transforming assets into capital and that differences in the institutions that govern property help explain why some countries remain poor: ". . . they hold these resources in defective forms: houses built on land whose ownership rights are not adequately recorded, unincorporated businesses with undefined liability . . . Because the rights to these possessions are not adequately documented, these assets cannot readily be turned into capital, cannot be traded outside of narrow local circles where people know and trust each other, can not be used as collateral for a loan, and cannot be used as a share against an investment" (5). De Soto argues that de facto rights to assets (e.g., real estate) are not capable of "releasing" assets into exchange between unfamiliar agents and this limits households' capacity to *leverage* (e.g., mortgage real estate) in the same manner as those resources managed by a *de jure* set of rights with clear and transferable titles of ownership. In the absence of documented legal expressions of property, assets will neither be *fixed* (e.g., documented) or fungible; two necessary conditions for transforming assets into *capital* – assets that can be leveraged over time so as to contribute to both current income and future production (de Soto 2000). Assets that are informally owned and can not be leveraged into new productive investments constitute, in de Soto's terminology: dead capital.[14] His concern is important. He estimates that the total value of real estate held but not legally owned by the poor in the Third World and former Communist nations is at least 9.3 trillion dollars. This is nearly as much as the total value of all companies listed on the main stock exchanges of the twenty most developed countries (35).

De Soto's novel contribution to the literature is his contrast between *de jure* and *de facto* property rights and the ongoing relationships between transaction costs, capital accumulation, and economic growth. The situation I have been describing in this paper is similar to De Soto's in terms of consequences. In some cases, heir property might be characterized as a form of dead capital in that individual interests in the property cannot be leveraged into loans. In Letcher County Kentucky, for example, it is a standard practice of local banks to disallow the use of a partial interest in property as collateral on a loan. Hence, unless all cotenants agree, heir property cannot serve as collateral. In some situations, heir property may become a *de jure* form of property that has been transformed into "dead capital" as a result of real property law, intestate succession, and the presence of high transactions costs.

Future Research

Future research needs to further examine the link between heir property and the persistence of poverty and the extent to which the statutory laws of intestate succession contribute to fractionated forms of property ownership. In addition, the relationship between heir property and the persistence of poverty needs to be empirically tested. The anticommons and case evidence from Letcher County, Kentucky was used to develop the hypothesis that heir property may constrain economic development in the region. However, that hypothesis requires testing. Empirical testing of this hypothesis will require much more information about property ownership.

With respect to property ownership in central Appalachia, a significant research gap remains. One of the most comprehensive studies, *Who Owns Appalachia?*, was conducted by the Appalachian Task Force (ATF 1983). ATF surveyed eighty counties in Appalachia and found ". . . of the 13 million acres of surface [land] sampled, 72 percent – almost three-quarters – were owned by absentee owners . . . Four-fifths of the mineral rights in the survey are absentee owned. Almost 40 percent of the land in the sample, and 70 percent of the mineral rights are corporately held" (ATF 1983, 14). The ATF argued that the high level of both corporate and absentee ownership of land appropriates control of the area's resources and thereby limits economic opportunities for area residents. The ATF focuses on corporate and absentee ownership, not on the character of property held by most residents. ATF recorded all owners of property in excess of 250 acres and all corporate or absentee owners holding twenty acres or more (163). While this sampling procedure may be appropriate for ATF's main objective – to determine who, primarily, owns Appalachia – the sampling design may not adequately describe the character of local ownership.

Future Research needs to measure the prevalence of heir property in low income rural regions and better characterize these properties with respect to the number of cotenants and the other demographic characteristics. Such research can provide empirical data for examining the extent to which variation in heir property explains certain economic phenomena. Given this information one testable hypothesis is that a higher prevalence of heir property is a factor that contributes to the persistence of poverty in some areas. Also, variation in the laws of intestate succession across states can be examined to better assess their influence on the prevalence of heir property. There is also a need for qualitative studies that enable researchers to better understand the extent to which cotenants cooperate.

Research on the economic effects of heir property will need to be coupled with research that examines the economic history of intestacy law. Lomenzo points out that intestacy laws vary across states and that "[t]he diversity of these provisions indicates that the ad hoc legislative approach currently used fails to ensure that all of the goals underlying intestacy statutes are promoted uniformly among jurisdictions" (1995, 942). While these laws vary, tenancy in common is generally presumed as a means of transferring property to heirs. Craig-Taylor (2000) notes that it is uncertain exactly when the courts began to move away from the presumption of joint tenancy to tenancy in common, but the transition seems to have been generally established by the end of the nineteenth century. Craig-Taylor provides a number of reasons for this shift – e.g., to help surviving heirs and to create more property in the market (via the increasing number of co-owners with partial interests in the property). However, a careful economic analysis of the history of tenancy in common and the motivation and consequences of its use (from an economic perspective) is needed. Lueck's (2002) examination of Harold Demsetz's theory of the evolution of property rights, using evidence regarding the historic extermination and conservation of the American Bison, is one example of the kind of research that I believe is needed. This research would illuminate economic issues regarding the evolution of intestacy law and tenancy in common and support future economic research that might assess the benefits and costs of legislative reform.

Policy Implications

Research on the subject of intestate succession and tenancy in common has not advanced to the point where economists can argue that current institutions ought to be changed. Indeed, the prevalence of heir property needs to be carefully examined and the extent to which the laws of intestate succession contribute to its prevalence remains a question. The research agenda discussed above will provide information that should enable more concrete policy recommendations. However, as research progresses, University extension programs may develop or enhance their capacity to provide information regarding wills and the legal-economic consequences thereof. Given resource constraints, these extension efforts may need to target low-income areas where people are less likely to make valid wills. Policy makers might also want to become actively involved in better assessing the prevalence and consequences of heir property. State legislators, for example, may seek information from their constituents about the prevalence and consequences of heir property.

Notes

1. See Bratt (1992/3) for a detailed review of Kentucky intestacy law. A more general discussion of real property and tenancy in common is provided by Mallor and others (2006).

2. Tenancy in common differs from other tenancies – e.g., Joint Tenancy – in that there is no right of survivorship. For example, Craig-Taylor (2000, 743) notes that "[i]f the joint tenancy is not destroyed before the death of an interest holder, then the deceased holder's interest is absorbed by the surviving joint tenants (743)." In contrast, tenancy in common lacks the right of survivorship and, as a consequence, the death of an interest holder results in their interest passing on to their heirs through inheritance. Hence, over time, tenancy in common would be expected to lead to more co-owners, all else equal, than joint tenancy.
3. *Cook vs. Aguayo*. Civil Action No.: 00-CI-00227. Letcher County Circuit Court, Whitesburg, KY (Filed June 12, 2000).
4. I am thankful to the efforts of Jamie Baxter who worked with me during the summer months of 2005 to gather data from the EPC and access legal documents from the Letcher County Courthouse.
5. Two curative reports provided a title search on an additional tract. Hence, 23 curative reports provide information on 48 distinct tracts.
6. *Taylor v. Bradford*, KY., 244 S.W. 2d 482, 483-484 (1951), quoting from 14 Am. Jur., Cotenancy, Section 24.
7. *Emmons v. Evans*, 198 S.W. 900 (1917).
8. *Taylor v. Bradford, supra* note 6.
9. Figure adapted from Buchanan and Yoon (2000, 6).
10. Like Buchanan and Yoon, I do not examine the value of abandoned property. This is worth further consideration because, in some contexts, abandoned property may generate amenities for non-owners.
11. *Swan Fork Coal Company v. The Heirs or Assigns of W. Potter*. Civil Action No.: 00-CI-00227. Letcher County Circuit Court, Whitesburg, KY (Entered Oct 14, 2000).
12. *Cook vs. Aguayo supra* note 3.
13. *Fields v. Gilley*. Civil Action No.: 00-CI-00388. Letcher County Circuit Court, Whitesburg, KY (Entered June 3, 2004).
14. Otto Steiger's (2006) distinction between a possession-based system and a property-based system is useful for refining our thinking about these issues. Possessory rules refer to nonlegal material use of resources while property rights are dejure claims that ". . . entitle their holders to immaterial (non-physical) capacities which first constitute economic activities: . . . (ii) to encumber these titles as collateral for obtaining money as capital . . . " (186).

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