The Social Costs of Gambling:
An Economic Perspective

Douglas M. Walker
Georgia College & State University

A. H. Barnett
Auburn University

Much of the opposition to legalized gambling is based on analyses of the social costs that occur as a result of pathological gambling. It is our contention that many, if not most, authors who have contributed to this literature are either unclear or misguided in what they define as social costs. Instead of starting with a clear definition of what constitutes a social cost, these authors have adopted an ad hoc approach—using "common sense" to determine what constitutes losses to society and then attempting to quantify the impact of those activities. We believe this is not, as some suggest, simply a matter of semantics. Rather, it is a serious problem in the gambling literature. How do we differentiate between a consequence of pathological gambling that is a "social cost" and one that is not? Which of the consequences of addictive behaviors that are associated with gambling arise when gambling is legal, and which will be manifest in some form whether or not gambling is legal? In this article we explain the economic perspective on social costs. An understanding of this paradigm removes the subjectivity in the classification of pathological gambling's social costs. The paper has three major components. First, we introduce the economic notion of social costs. Using this paradigm, we differentiate between the "true" social costs related to pathological gambling, and other negative consequences that cannot legitimately be classified as social costs. Second, we evaluate a recent social cost study using the economics social cost paradigm. Third, we

discuss two types of social costs that have been largely overlooked in the gambling literature. One is caused by gambling prohibition. The other occurs as a result of "rent seeking" that is related to the political process surrounding the legalization of gambling.

INTRODUCTION

In recent years there has been a great deal of debate about the benefits and costs of legalized gambling. The gambling industry argues that its product is simply a form of entertainment, like going to movies and football games; consumers are willing to pay a price for entertainment. But many researchers argue that gambling is fundamentally different from other forms of entertainment either because gambling, unlike movies and football games, can lead to addiction,[1] or because gambling is bad per se.[2]

Further, addicted, or pathological, gamblers are purported to inflict high costs on society. Studies in which researchers estimate the "social costs" of pathological gambling have been important evidence in debates concerning the virtues of legalized gambling.[3] As would be expected, different investigators have arrived at different conclusions regarding the magnitude of these costs. As a consequence, the social cost issue has been hotly debated in the gambling literature.

A recurring omission in social cost studies, whether done by those

---

[1] The American Psychiatric Association estimates that between 1–3% of adults become addicted to gambling (APA, 1994, p. 617). It is not our purpose to define the conditions that constitute "pathological gambling." Nor do we attempt to differentiate between different levels of the affliction; we leave these important tasks to psychologists and sociologists. We simply accept that there is a sample of the population that gambles to such an extent that it disrupts their professional or personal lives. For research on the levels of gambling addiction and the number of people afflicted, see the following, cited in Shaffer, Hall, Walsh, and Vander Bilt (1995): Lesieur (1989), Lesieur and Rosenthal (1991), Volberg (1994), and Volberg and Steadman (1988). Also see the APA's *DSM-IV* (1994), Eadington (1989; 1993), Goodman (1994a; 1995a), Grinols (1995), Lesieur and Blume (1987), Shaffer and Hall (1996), Volberg (1996), Volberg and Steadman (1989), and Walker and Dickerson (1996).

[2] Some researchers implicitly argue that gambling is a "merit bad." That is, gambling is viewed as being bad per se. See Rosen (1992, p. 494) for a discussion of merit bads. For example, Gross (1998b, p. 217) writes, "my sense is that gambling, just like alcohol, tobacco, drugs, and prostitution, is a 'sin good' and should be addressed accordingly. The public debate currently raging regarding cigarette smoking is witness to the importance and complexity involved in such commodities." Grinols and Omorov (1996) make a similar argument.

[3] It is important to keep in mind that social costs need not result only from *legal* gambling. Our discussion is not meant to be limited to government-sanctioned forms of gambling. The social costs usually discussed in the literature refer to those caused primarily by pathological gamblers. Hereafter, for simplicity, we simply refer to these as "social costs," or the "social costs of gambling."

who oppose legalized gambling or by those who support it, is a clear statement of just what is being measured. That is, no one clearly defines "social costs." Instead of starting with objective criteria for what constitutes a social cost, most authors have adopted an ad hoc approach—asserting that some activities constitute costs to society and then quantifying the impact of those activities.

As an example, consider Goodman's work (1994a),[4] which was one of the most comprehensive at the time of its publication. In his estimate of the social costs of gambling, Goodman includes estimates for income lost by gamblers who lose their jobs, the costs of prosecuting and incarcerating those who commit crimes to support gambling habits, and contributions from family members and others who "bail-out" gamblers. In addition to these, he lists other costs that are not as easily quantifiable:

> impaired judgment and efficiency on the job, lost productivity of spouses, unrecovered loans to pathological gamblers, divorces caused by gambling behavior, added administrative costs in programs like unemployment compensation, the costs of depression and physical illnesses related to stress, lower quality of family life and increased suicide attempts by gamblers and spouses of pathological gamblers. (pp. 63–64)

Other authors have lists of costs that vary slightly from Goodman's. In Table 1 we present a partial list of the alleged social costs of gambling, along with some of the authors who address the issue. Importantly, *none* of the researchers has defined exactly what constitutes a "social cost."

We contend that a clear, conceptually sound set of guidelines for determining what constitutes a social cost (i.e., a clear and explicit definition of "social cost") is essential to objective and meaningful measurement of the social cost of gambling. We further contend that the failure of analysts to use a conceptually sound criterion for identifying social costs has led to a capricious classification of some behavioral consequences as social costs and the inappropriate omission of other consequences from social cost calculations.

The purpose of this article is to explain the economic perspective on social costs and to critique some of the social cost of gambling literature in light of this perspective. Using the economics paradigm,

---

[4] Actually, Goodman relies on the work by Volberg for his estimates.

Table 1
Alleged Social Costs and Relevant Papers

Alleged Social Costs	Partial List of Sources that Address Social Costs
(1) income lost from missed work; (2) decreased productivity on the job; (3) depression and physical illness related to stress; (4) increased suicide attempts; (5) bailout costs; (6) unrecovered loans to pathological gamblers; (7) unpaid debts and bankruptcies; (8) higher insurance premiums resulting from pathological gambler-caused fraud; (9) corruption of public officials; (10) strain on public services; (11) industry cannibalization; (12) divorces caused by gambling	Boreham, Dickerson, and Harley (1996); "Casinos in Florida" (1995); Gazel (1998); Goodman (1994a; 1994b; 1995a; 1995b); Grinols (1994b; 1995); Grinols, Mustard, and Dilley (1999); Grinols and Omorov (1996); Gross (1998a); Kindt (1994; 1995); LaFalce (1994); Ladd (1995); Lesieur (1995); National Gambling Impact Study Commission (NGISC, 1999); National Opinion Research Center (NORC, 1999); Nower (1998); Politzer, Morrow, and Leavey (1985); Rose, A. (1998); Rose, I. (1995); Ryan (1998); Tannenwald (1995); "Task Force on Gambling Addiction in Maryland" (1990); Thompson (1996; 1997); Thompson, Gazel, and Rickman (1996; 1997); U.S. House (1995); Zorn (1998)

the measurement of social costs becomes more objective and less a function of researchers' whims, preferences, and emotional reactions.

The remainder of this article is organized into five sections. In section two, we provide a brief discussion of the welfare economics theory that forms the basis for the economics definition of social cost. Since many gambling researchers borrow, and misuse, the economic concept of "externality," we also explain the important distinction between "pecuniary" and "technological" externalities. The third section

contains a discussion of the importance of "rational addiction" and the primary nature of pathological gambling for the estimation of the social cost of gambling. In the fourth section, we review a typical social cost study (Thompson, et al., 1997) to illustrate how the economics paradigm allows one to distinguish between "true" social costs, and other consequences of gambling. Section five contains a discussion of two types of social costs that have been largely overlooked in the gambling literature. One of these costs is caused by gambling prohibition. The other occurs as a result of "rent seeking" that is related to the political process surrounding the legalization of gambling. The last section contains our concluding comments.

SOCIAL COST AND THE WELFARE ECONOMICS PARADIGM

There are a number of consequences of gambling that are viewed by some, if not most, individuals as undesirable; many of these are listed in Table 1. As one anonymous reader of some of our earlier work put it, "it is just common sense that these things are social costs."

We contend that one investigator's, or even many investigators', views on what their common sense dictates is not an adequate criterion for the determination of what constitutes a social cost. A more objective criterion is required if social cost studies are to be taken seriously.[5] The obvious question then is what criteria should be used for classifying the consequences of human behavior as social costs? Welfare economics provides an answer to this question.

Social Cost Defined

Simply (and somewhat imprecisely) put, the welfare economics measure of the social cost of an action is the amount by which that action reduces aggregate societal real wealth. For example, suppose that an action harms some members of society and benefits no one. The social cost of the action in this case is the sum of the amounts by

---

[5] Just as objective criteria are useful in estimating the prevalence of pathological gambling, objective criteria are important for the measurement of social costs. Harberger (1971, p. 785) makes this point in the context of welfare economics in general and cost-benefit analyses in particular: "Just as the road-construction standards that a team of highway engineers must meet can be checked by other highway engineers, so the exercise in applied welfare economics carried out by one team of economists should be subject to check by others."

which real wealth is reduced for those who are harmed. Suppose, on the other hand, that an action harms some members of society (say by taxing away part of their wealth) and benefits others (say by providing them with wealth transfers). Assume further that the collective harm to those made worse off is equal to the gains of the beneficiaries. Since the gains for some members of society are equal to the losses of others, the level of societal wealth is unchanged, and so the action produces no social cost.

This definition of a social cost as a reduction in societal real wealth has not been arbitrarily chosen; it is rooted in the Pareto criterion.[6] The Pareto criterion states that a change in the state of the world improves social welfare (i.e., produces a social benefit) when that change makes at least one member of society better off while making no one else worse off (Layard and Walters, 1978, p. 30).[7] Obviously, this criterion does not provide a practical guide to welfare calculations, since any conceivable policy change is likely to leave someone worse off. However, a variant of the Pareto criterion, first proposed by Kaldor (1939) and later by Hicks (1940), can provide guidance in such calculations.

The Kaldor-Hicks criterion states that a change in the state of the world improves social welfare if the change "would enable the gainers to compensate the losers while continuing to gain themselves. Since the compensation need only be hypothetical, a Kaldor-Hicks improvement offers only a potential Pareto improvement" (Layard and Walters, 1978, p. 32). On the other hand, a given change in the state of the world reduces welfare (i.e., produces a social cost) when those who gain from the change do not have gains sufficient to fully compensate those who lose. In other words, if a change in the state of the world reduces the wealth of some members of society more than it increases the wealth of others, then the aggregate wealth of society is reduced and a social cost (in the amount of the difference) is produced by the change.

---

[6] The concept is named for Vilfredo Pareto, a late-19th/early-20th-century economist. The Pareto criterion is the central concept in welfare economics. A full understanding of the meaning of social costs, as economists use the term, requires an understanding of this concept in all its subtle details. Because of the relative complexity of welfare economics and the Pareto criterion, anything beyond an elementary discussion of the subject is beyond the scope of this article.

[7] This definition is given in any text that addresses welfare economics. For other examples, see Just, Hueth, and Schmitz (1982) or Varian (1999).

Importantly for our purposes, a change in the state of the world that simply redistributes wealth from some persons to others, without changing the sum of wealth for all individuals taken together, would produce neither a social cost nor social benefit. Such redistributions would make some individuals better off and others worse off, but in the aggregate, society would be no worse off.[8] This neutrality of wealth transfers in welfare applies even when the transfers are involuntary.[9]

The Definition Applied

Tullock (1967) used the now famous example of theft to illustrate the concept of social cost. Theft is a transfer of wealth that does not represent a social cost—there is no net change in the value of society's resources. Landsburg offers a succinct explanation of Tullock's point: "stolen property does not cease to exist. When a television set is moved from one house to another, it remains as reliable a source of entertainment as it ever was. This is true even when the new recipient of those services is a thief or a dealer in stolen property" (Landsburg, 1993, pp. 97–98). The transfer of wealth from victim to thief may be unfortunate, and it is certainly inequitable from the perspective of most members of society. Nonetheless, the value of the stolen property is simply a transfer between thief and victim that does not change aggregate societal wealth.[10]

However, there *are* two social costs associated with theft. First, crime may impose "psychic costs" on the victim that are unrelated to the pecuniary value of the lost property. For example, the victim may feel violated and fearful after a theft occurs.

Second, the existence of theft creates behavior geared toward pre-

---

[8] To be strictly correct, interpersonal utility comparisons are problematic. Nonetheless, in applied welfare studies, economists typically assume that all individuals have approximately identical utility functions. Given this assumption, it is possible to draw unambiguous welfare implications (i.e., measures of social benefits and costs) by aggregating individuals' willingness to pay for policy changes.

[9] For related discussions, see Baumol and Oates (1988), Bhagwati (1983), Bhagwati, Brecher, and Srinivasan (1984), Johnson (1991), Krueger (1974), Mueller (1989), Posner (1975), Tollison (1982), and Tullock (1967).

[10] On an early draft, one reviewer commented, "[The authors] even deny that thefts are costs to society. They deny that the costs of welfare are social costs. If not, they would not have to be included in the state budgets, so how can they not be social costs?" This comment is a good example of the widespread confusion on social costs. If government spending did indicate "social cost," then education spending and research effort would qualify as social costs.

venting involuntary wealth transfers.[11] Because some people engage in theft, others in society use scarce resources to prevent theft, for example, buying locks, burglar alarms, and so on.[12] As a result, society must forego other "useful" goods and services, and this opportunity cost is a social cost. As Tullock (1967, p. 231) explains, "the existence of theft as a potential activity results in very substantial diversion of resources to fields where they essentially offset each other, and produce no positive product." Note that it is the *existence of theft*, not the value of goods stolen, that is the source of the social cost.[13]

Taxes provide another useful example. Although taxes represent wealth transfers, and the value of a tax does not belong in cost-benefit analyses, taxes do cause a social cost. Specifically, resources that could otherwise be used to produce goods and services are instead used by governments in the process of collecting taxes. In addition, taxpayers change consumption patterns and use resources in an attempt to reduce their tax burdens (e.g., by hiring accountants and lawyers).[14]

With an understanding of involuntary wealth transfers, such as theft or taxes, it is clear that, from a welfare economics perspective, voluntary wealth transfers do not generally result in social costs. In the gambling literature, however, the dollar amount of voluntary wealth transfers is often counted as part of the social cost of gambling. An example is the alleged "bailout costs" that pathological gamblers impose on society.[15] These bailouts neither create nor destroy wealth; they simply redistribute it.[16]

---

[11] Behavior that involves attempts to obtain or prevent wealth transfers is generally referred to as "rent seeking" behavior. Rent seeking is discussed in more detail in the fifth section of this paper. Also see Johnson (1991) and Mueller (1989) for extensive discussions.

[12] Becker argues that, in the case of a *competitive* crime market, the value of the resources used in producing locks, paying police, etc., can be assumed to approximate the social cost of the crime (1968, note 3, italics added).

[13] Similarly, consider a government-imposed price ceiling on gasoline. The result is a line at the gas station. The cost to consumers—time spent in line—is not simultaneously a benefit to anyone else. Hence, it represents a social cost of the government price control. Another useful example can be found in the fifth section of this paper; see the quotation of Tollison (1982, pp. 577–578).

[14] The amount by which the full cost of a tax exceeds the value of revenues collected is often referred to as the "deadweight loss" or "excess burden" of the tax. Varian (1999, pp. 296–298) provides a (non-technical) graphical and verbal explanation of the deadweight loss from taxes.

[15] Numerous authors allege this is a social cost of gambling. These include "Casinos in Florida" (1995), Goodman (1995b), Kindt (1994), Politzer, et al. (1985), and Thompson, et al. (1997).

[16] Consider, as another example, a schoolboy who loses his money pitching pennies at recess. Rather than see him go without food, his mother may deliver a stiff lecture and replacement lunch money. The child's mother would certainly be displeased with her child's behavior, but her "gift" is a voluntary transfer of wealth that does not constitute a decrease in social wealth, and therefore is

To be sure, redistributions of wealth, especially when they are arbitrary and involuntary, can produce social costs. However, the social cost produced by such transfers is the value of the psychic costs imposed by the transfer that is over and above the value of the transfer itself. In other words, the amount of bad debt, unemployment compensation, or other wealth redistribution is not a measure, or even a meaningful proxy, of social costs.

Externalities and Social Costs

"Externality" is a concept closely related to social cost that also leads to confusion in the gambling literature. Specifically, some investigators equate externalities and social costs,[17] while others appear to think that any third-party effect qualifies as a social cost.[18] Both views are misguided.

Externalities occur when the actions of one person impact the welfare of another who has no direct control over the actor. Without doubt, pathological gamblers often engage in behavior that has negative effects on others. However, not all negative externalities represent social costs.

Since the 1930s, welfare economists have taken care to distinguish between "technological externalities" and "pecuniary externalities."[19] Technological externalities are defined as those for which the external effect impacts real (i.e., non-monetary) arguments in the utility or production functions of affected parties. In other words, technological externalities impact the ability of an economic actor to transform a given amount of inputs into outputs (utility). A technological externality occurs, for example, when a polluter discharges pollutants into a stream so that a downstream water user must clean the water before it can be used at the downstream site. As a result of the pollution, the amount of real resources required for the downstream producer to produce a given amount of output is increased. The important point is that more resources are required to produce the same amount of the

---

not a social cost. Similarly, if her adult son is a pathological gambler and loses his own income gambling, she may choose to provide funds for his food and shelter. As before, the wealth transfer would not constitute a social cost because her gift is purely a transfer and there is no loss in wealth for the community at large.

[17] For example, see Grinols and Omorov (1996), Grinols, et al. (1999), LaFalce (1994), and Thompson (1997).

[18] See virtually any social cost of gambling study for examples of this misunderstanding.

[19] Seminal work in this area was by Jacob Viner (1931).

externality-affected output than in the absence of the pollution. Hence, fewer resources are available to produce other goods, so society's real wealth is reduced as a result of the pollution.[20]

Pecuniary externalities, on the other hand, impact prices and wealth distribution but they do not affect aggregate societal wealth. That is, a pecuniary externality may impact the price of a product, and hence the dollar cost of producing a given amount of that product (utility), but it would not affect the amount of real resources required to produce a given amount of the product (utility). As a consequence, pecuniary externalities may redistribute wealth among members of a society, but they do not reduce the aggregate amount of wealth in that society. For example, when a gambler loses the money that would otherwise have been used to buy groceries for his family, the family is worse off. Because the gambler's actions reduce their wealth, he imposes an externality on his family. However, since the gambler's actions do not generally impact real arguments in production (utility) functions, the externality is pecuniary. Put another way, the losses of the gambler and his family are equal to the winnings of others,[21] so there is no loss in aggregate societal wealth.

In a nutshell, negative technological externalities are externalities that cause inefficiency in the use of resources (i.e., they produce social costs) as well as costs for the person harmed by the externality generator. Negative pecuniary externalities, on the other hand, cause harm to the affected individual but do *not* produce inefficiencies (i.e., social costs); they are simply wealth transfers. An example of the latter occurs when a new employer enters a labor market and drives up labor costs (wage rates) for existing employers.[22] The former occurs when a factory discharges waste into the air that harms the health of those down-wind from the polluter.[23]

The distinction between pecuniary and technological exter-

---

[20] Of course, the issue is a bit more complicated than our discussion here implies. Whether society's wealth is reduced by the pollution depends upon whether the pollution is marginally relevant. For a discussion of the importance of marginally relevant externalities, see Barnett and Kaserman (1998).

[21] The winners are a combination of other gamblers who win and the gaming industry involved.

[22] This applies even when, for example, the now higher labor costs drive some existing firms out of business.

[23] For more detailed discussions of externalities, particularly the distinction between pecuniary and technological externalities, see Barnett (1978; 1980), Barnett and Bradley (1981), Barnett and Kaserman (1998), and Baumol and Oates (1988, chapter 3, especially p. 30).

nalities, though extremely important in welfare economics, is generally confused or ignored by those who write on the social costs of gambling. As a result, it is common for gambling researchers to aggregate real (technological) and pecuniary effects to produce meaningless sums that they then characterize as social costs.

For example, Grinols and Omorov (1996, p. 52) note that "gambling is associated with significant negative externalities. . . ." They cite as examples "crime-related apprehensions, adjudication, and incarceration costs, as well as social service costs for themselves and their families" (p. 53). Here Grinols and Omorov confuse the issue by their failure to note that crime-related apprehensions, adjudication, and incarceration costs represent technological externalities, which are social costs, while social service costs for the gamblers and costs to the gamblers' families are generally pecuniary externalities, which do not themselves represent direct social costs.[24]

To be clear, we do not intend to suggest that the redistribution of wealth caused by gambling is irrelevant to policy deliberation. Clearly, the suffering of the families of pathological gamblers is cause for serious concern. However, it is important to recognize that, while the psychic costs imposed on family members may be included in social costs, neither the gambler's losses nor the transfers of wealth that they prompt are social costs. More importantly, using the amount of wealth transferred as a result of pathological gambling as a measure of social costs, and the addition of these amounts to "real" social costs, is to add apples and oranges. The resulting sum is a meaningless number.

ADDICTION, RATIONALITY AND CAUSATION

Another important issue related to social cost calculations for gambling is the rationality of pathological gamblers. The behavior of a rational individual is the product of some systematic decision calculus on the part of the decision-maker. Such individuals select (from their opportunity set) those activities and goods that (all things considered) they believe will give them the greatest net enjoyment. That is, an individual will select activity X over activity Y only if she receives greater net utility, i.e., personal benefits minus personal costs, from X

---

[24] Grinols, et al. (1999) also illustrate confusion about externalities.

than from Y. Other parties may disagree with the actor's value system, but that is not relevant to objective social cost calculations.

When decision-makers are rational, voluntary actions that do not adversely impact other people cannot reduce social welfare. If a gambler chooses to behave in a way which is self destructive and he is the only one who suffers the consequences of his actions, then the gambler's actions no more produce social costs than if he had devoted his time and wealth to listening to music or planting flowers. If someone chooses to fish, play golf, or spend time with his children at the expense of work time, and if his career suffers as a consequence, that person bears the cost of his actions through lower market compensation, and the rest of society is no worse off for his decision. Hence, if a rational actor's choice does not reduce the real wealth of other persons, aggregate societal wealth *cannot* be diminished by that choice. On the other hand, if pathological gamblers are not rational then this logic is suspect and the problem of estimating the social cost of gambling becomes much more complicated.

Rational Addiction

While the treatment of addictions and studies of their prevalence have primarily been the focuses of psychologists and sociologists, economists have investigated the rationality of choice over a wide range of human behavior, including that influenced by addictions.[25] Though the theoretical models are rather technical and rely on a variety of assumptions, empirical tests confirm that the models have substantial predictive power.[26]

A central thesis in this literature is that prior to becoming ad-

[25] Gary Becker (professor of economics and sociology at the University of Chicago, and 1992 recipient of the Nobel Prize in Economics) is largely responsible for the development of economic theory in this area of inquiry. The framework of the rational addiction model is explained most succinctly by Becker, Grossman, and Murphy (1994, p. 85). It considers "the interaction of past and current consumption in a model with utility-maximizing consumers. The main feature of these models is that past consumption of some goods influences their current consumption by affecting the marginal utility of current and future consumption. Greater past consumption of harmfully addictive goods such as cigarettes stimulates current consumption by increasing the marginal utility of current consumption more than the present value of the marginal harm from future consumption. Therefore, past consumption is reinforcing for addictive goods."

[26] For a comprehensive discussion of the rational addiction model, see Becker (1996), a collection of his previous papers: Becker (1992), Becker and Murphy (1988), and Stigler and Becker (1977). Empirical tests of the model can be found in Chaloupka (1991) and Becker, et al. (1991; 1994). Becker and Murphy (1988) cite a Ph.D. dissertation that applies the model to race track gambling (Mobilia, 1990).

dicted to gambling, that is, before one is a pathological gambler, the decision of whether or not to gamble is a rational choice. (Again, this simply means that the person takes into account the expected costs and benefits of various alternative activities, and chooses the activity that he expects to yield the greatest satisfaction.) There is a risk element in some decisions. For example, when deciding to drive a car, a person considers that there is a slight risk of death from unforeseen accidents. Likewise, the choice of whether or not to play casino games, buy lottery tickets, or even drink coffee, includes a slight risk of developing an addiction. But risking addiction is not inconsistent with rationality. The initial choice of whether or not to consume a potentially addictive good is generally a rational decision, as Orphanides and Zervos (1995, p. 741) explain:

> Addiction results from a time-consistent expected utility maximizing plan. Addiction is voluntary, yet it is not intentional. It is the unintended occasional outcome of experimenting with an addictive good known to provide certain instant pleasure and only probabilistic future harm. Despite the rationality of their decisions, addicts regret their past consumption decisions and are not "happy." Had they correctly assessed their addictive potential, addicts would have acted differently. Had they known, they would never have chosen to become addicted.[27]

Landsburg supports this view, arguing that medical costs resulting from illegal drug use cannot be considered a social cost. He argues that "increases in consumer's surplus [i.e., the difference between the maximum that a consumer would be willing to pay and what he actually must pay] is already net of health costs and lost income. Any such losses would have been reflected in people's willingness to pay for drugs so would have been implicitly accounted for in the original

---

[27] This work alleviates criticism of earlier rational addiction models that had not accounted for unknown probabilities of developing an addiction. Becker (1992, p. 121) anticipated the need for such a model: "Nothing in the analysis of forward-looking utility-maximizing behavior presumes that people know for sure whether they will become habituated or addicted to a substance or activity, although that is sometimes claimed by critics of this approach. An individual may have considerable uncertainty about whether she would become an alcoholic if she begins to drink regularly. A troubled teenager who begins to experiment with drugs may expect, but not be certain, that his life will begin to straighten out, perhaps because of a good job or marriage, before he becomes addicted. Since these and other choices are made under considerable uncertainty, some persons become addicted simply because events turn out to be less favorable than was reasonable to anticipate—the good job never rescued the drug user. Persons who become addicted because of bad luck may regret their addictions, but that is no more a sign of irrational behavior than is any regret voiced by big losers at a race track that they bet so heavily."

[cost-benefit] calculation" (Landsburg, 1993, pp. 100–101). The same argument applies to the social costs of gambling.

In short, gambling, even when it leads to addiction, appears to be the product of a rational decision process. Whether or not a person has pathological tendencies before placing a bet, the decision to gamble *is* rational prior to the development of an addiction. If a person becomes addicted, his quality of life may fall in a variety of ways. However, the development of an addiction does not imply that the original decision to gamble was irrational, even if the individual regrets the original decision. More to the point, since the adverse consequences experienced by a person as a result of his own rational actions cannot be considered a social cost, the reduced quality of life experienced by a gambler who becomes addicted cannot be considered a social cost. In the words of Orphanides and Zervos (1995, p. 752), "when forward-looking expected utility maximizing individuals possess the correct information regarding the distribution of [addictive tendencies], a ban or any other restriction on consumption is never Pareto optimal." Further, to argue that the original decision to gamble was irrational is an example of the "bad-outcome-implies-bad-decision" fallacy discussed by Frank (1988, pp. 72–75).[28]

Addiction and Causality

Before turning to a review of how closely existing studies conform to the economics definition of social costs, it is perhaps worthwhile to address the matter of the net, or marginal, contribution of patholog-

---

[28] Our major point is that the initial decision of whether or not to gamble is a rational decision, even for a person with pathological tendencies. Developers of rational addiction models go quite a bit further in their analysis. For example, while Becker and Murphy (1988, p. 71) agree that not all the behavior associated with addictions is consistent with rationality, Becker (1992, p. 122) writes, "although little is known about the mechanisms behind the development of habits, it is not obvious to me that they are less rational than other preferences." Stigler and Becker (1977, p. 33) consider the case of heroin addiction: ". . . if heroin were used even though the subsequent adverse consequences were accurately anticipated, the utility of the user would still be greater than it would be if he were prevented from using heroin. Of course, his utility would still be greater if technologies developed (methadone?) to reduce the harmfully addictive effects of euphoria." (It is useful to understand the technical conditions that justify their argument. The interested reader should see the papers in Becker, 1996.) Even the desire and inability to stop an addictive behavior can be seen as rational behavior: "The claims of some heavy drinkers and smokers that they want to but cannot end their addictions seem to us no different from the claims of single persons that they want to but are unable to marry or from the claims of disorganized persons that they want to become better organized. What these claims mean is that a person will make certain changes—for example, marry or stop smoking—when he finds a way to raise long-term benefits sufficiently above the short-term costs of adjustment" (Becker and Murphy, 1988, p. 69).

ical gambling to socially undesirable behavior. Typically, investigators observe that pathological gamblers have legal problems, often require public assistance in the form of various kinds of welfare payments, and may require more medical services than other individuals.[29]

While these observations are easily verified, they prove little. As most authors would acknowledge, simply observing that gambling is correlated with such problems does not imply that gambling causes them. If gambling were not an option, a person who is predisposed to a pathological disorder may manifest his disorder in other, equally destructive ways. More importantly, if pathological gambling is simply a symptom of some more basic disorder, then it is the more basic disorder, not the gambling itself, that is the underlying cause of the adverse consequences and social costs of the pathological gambling.

In such cases, pathological gambling may make little or no marginal contribution to the legal problems, bankruptcy, need for public assistance, or the high medical care costs that often characterize pathological gamblers. Since social cost calculations should include only the marginal contribution that pathological gambling makes to destructive behavior, a determination of whether such behavior is caused by, rather than simply being correlated with, pathological gambling is crucial to correctly estimating the social cost of gambling.

In large part, this issue revolves around whether pathological gambling is a primary or secondary disorder. Shaffer, Hall, and Vander Bilt (1997) have addressed this issue. They note that the *DSM-IV* (APA, 1994) indicates that "a person meeting all of the criteria for pathological gambling is *not* considered a pathological gambler if he or she also meets the criteria for a Manic Episode, and the Manic Episode is responsible for excessive gambling" (Shaffer, et al., 1997, p. 72). The authors explain that pathological gambling may be independent of other afflictions, or it may be only a reflection of other problems (p. 73).[30] Obviously, if the conditions for pathological gambling are a subset of another affliction, or of a combination of other afflictions, then we cannot legitimately attribute all the social costs of pathological gambling to the gambling per se.

---

[29] For example, see Grinols and Omorov (1996) and Thompson, et al. (1997).

[30] A study by Briggs, Goodin, and Nelson (1996) reports results which suggest that alcoholism and pathological gambling are independent addictions. However, as Shaffer, et al. (1997, pp. 72–73) note, "the Briggs et al. study employed a unique subject sample that likely represents the tails of two special self-selected distributions; they also employ a small sample size. Taken collectively, these factors encourage us to view their results as tentative and their conclusions as uncertain."

Thompson, et al. (1997, pp. 87–88) present some casual evidence from a survey of 98 members of Gamblers Anonymous:

> Thirty claimed to be alcoholics, 25 compulsive shoppers, 22 compulsive overeaters, and 14 drug addicts. Six claimed they were sexual addicts, four indicated they were suffering from depression, and two said they were codependents. . . . Twenty–three respondents went to therapists and caregivers for alcohol problems and 46 for other problems including depression (14) [and] marriage and family problems (12).

Furthermore, there is evidence to indicate that the general population tends to have a lower incidence of multiple disorders (e.g., those indicated above) than members of Gamblers Anonymous (WEFA, 1997, pp. 6–13; Abt, 1997, p. 61).

The important implication to be drawn from these studies of multiple disorders is that observing a correlation between social problems and pathological gambling is not adequate to attribute the social problems to gambling. Both pathological gambling and the probability that one will run afoul of the law may be symptoms of a more basic (i.e., "primary") disorder. While this point is obvious to most observers, it is typically (and inappropriately) ignored in estimating the social cost of gambling. Studies which fail to address the causality and marginal contribution issues are likely to overstate the actual social costs of gambling. Hence, social cost estimates for gambling that do not address these issues should be viewed with skepticism.

PREVIOUS SOCIAL COST ESTIMATES

It is uncommon to find a recent gambling study that has an original estimate of the social costs caused by pathological gamblers. Most studies simply repeat previous dollar estimates, without explaining what costs are included in the estimates (and why), or they present a range of cost figures and call the lower end of the range "conservative." Few studies explain the underlying methodologies used to derive the estimates. Table 2 summarizes some of these studies.[31] Each of these studies discusses the high level of costs associated with gambling, but none explains how the estimates were calculated or what condi-

---

[31] In addition, see "Casinos in Florida" (1995), Tannenwald (1995), and U.S. House (1995).

Table 2
Social Cost Estimates

Goodman (1995a)	Goodman explains the "costs to government and the private economy" are estimated at $13,200 per year per pathological gambler (p. 56). This is the same number used in his 1994 study. He does not explain the criteria by which items are included, but does list some of the "costs" that were included. Goodman's "research" is based primarily on newspaper articles.
Grinols (1995)	Grinols has one of the most alarmist and deceptive discussions. He suggests the social costs of gambling are like destruction of wealth amounting to "losses equal to the lost output of an additional 1990:III-1991:II recession every eight to fifteen years, or an additional hurricane Andrew (the most costly natural disaster in American history) every year, or two 1993–level Midwest floods (the largest floods on record for the area) annually" (p. 7).
Grinols and Omorov (1996)	In this paper the costs are called externalities. The authors use estimates from previous studies: "Focusing only on social costs that can be measured—primarily apprehension, adjudication, incarceration, direct regulatory costs, and lost productivity costs—leads to annual costs per pathological gambler between $15,000 and $33,500" (p. 56).
Kindt (1994; 1995)	Kindt simply discusses previous estimates. He cites a relatively high cost estimate: "The social, business, economic and governmental costs of [pathological gamblers] are potentially catastrophic. The average socioeconomic cost per [pathological] gambler per year has been calculated at $53,000" (Kindt, 1995, p. 582). Kindt's work, usually published in law journals, is decidedly less than scientific.

Table 2 (*Continued*)

Maryland (1990)	The social cost of pathological gambling in Maryland is estimated at $30,000 per gambler per year, in 1988 dollars (p. 59). "Abused dollars" are the basis for these costs.[1]

[1]Politzer was a co-chair of The Task Force on Gambling Addiction in Maryland (1990). Politzer, et al. (1985) introduce the term "abused dollars" to mean roughly the same thing as the "social costs" of other authors.

tions must be satisfied for a consequence of gambling to be considered a social cost.

Among the studies that offer estimates of the social costs of pathological gamblers, the work by Thompson, et al. (1996; 1997) is one of the most complete and most carefully done.[32] Indeed, they note the shortcomings of previous researchers: "Several studies have offered evidence about the societal cost of problem gambling. However, for the most part, we have seen only attempts to either list all the cost factors without analysis and without totaling up the effects, or to offer numbers without any indication of how the numbers were determined" (Thompson, et al., 1997, pp. 82–83).

Thompson, et al. are more thorough than many other investigators in explaining the process behind their social cost estimate. Hence, their study is a good one to use in assessing the appropriateness of the typical components of social cost estimates.[33]

Table 3 reproduces the cost estimates by Thompson, et al. (1997). As shown, the "annual societal costs of one compulsive gambler" was estimated to be $9,469. It is informative to evaluate this estimate according to the economics definition of social cost.

The first item listed in their estimate is the value of lost work

[32] Thompson, et al. (1996) give an explanation of each of the "social costs" ("employment costs, bad debts and civil-court costs, thefts and criminal-justice costs, the costs of therapy, and welfare costs") and their estimation (pp. 16–21), but as in their 1997 study, the authors fail to disclose the specific criteria used for determining just what constitutes a social cost. More recent comprehensive studies by NORC (1999) and the NGISC (1999) are similar in this respect.

[33] It should be noted that the Thompson, et al. (1996; 1997) cost estimates are based on a survey of Gamblers Anonymous participants. The fact that these individuals are seeking help from Gamblers Anonymous could be evidence that they are, on average, more seriously affected by their affliction than other pathological gamblers. Therefore, generalization to the population of pathological gamblers could overstate the true average cost. For more discussion on this issue, see WEFA (1997) and Abt (1997).

Table 3
Summary of Annual Societal Costs of One Compulsive Gambler ($)

Employment		2,941
Lost work hours	1,328	
Unemployment compensation	214	
Lost productivity/unemployment	1,398	
Bad debts		1,487
Civil court		848
Bankruptcy court	334	
Other civil court	514	
Criminal justice		3,498
Thefts	1,733	
Arrests	48	
Trials	369	
Probation	186	
Incarceration	1,162	
Therapy		361
Welfare		334
Aid to Dependent Children	233	
Food stamps	101	
Total		9,469

Source: Thompson, et al. (1997, p. 87).

hours, unemployment compensation, and lost productivity from un-employment. Unemployment compensation is an income transfer and, consequently, does not meet the economics criterion for a social cost. As noted above, there could be social costs associated with the collection of taxes required to pay unemployment compensation.[34] However, the amount of unemployment compensation paid is not a reasonable estimate of the social cost. Further, to the extent that lost work time is reflected in a worker's compensation, the worker is the residual claimant to the unemployment and reduced productivity at-

---

[34] These social costs, usually referred to as the "excess burden" of the tax, are equal to the amount by which the total burden of a tax exceeds the value of revenue collected by the tax.

tributable to this lost work time. In short, the $2,941 estimate for lost productivity cannot generally be considered a social cost.[35]

The second item in their estimate is that a pathological gambler will have $1,487 in bad debts annually. Certainly bad debts are costly to the creditors, but the result of these bad debts is simply to transfer wealth from creditors to debtors. Since transfers are not considered social costs, the inclusion of bad debts in the estimate of social costs is inappropriate.[36]

While the bad debts themselves are simply wealth transfers that cannot be considered a social cost because they do not reduce societal wealth, the cost of resources used in the collection of bad debts can be characterized as a social cost. To the extent that bad debts accumulated by gamblers exceed those that would occur in efficient capital markets, societal wealth is reduced when resources that would have been used to produce goods and services are instead used in efforts to collect (or avoid paying) bad debts. However, Thompson, et al. (1996; 1997) do not include these costs in their calculations.

The costs arising from civil court cases involving pathological gamblers could represent real resource costs. To the extent that civil court cases are caused by (not simply correlated with) pathological gambling, and to the extent the costs are paid by third parties, such as taxpayers, it is appropriate to include such items in social cost measurements.[37] However, awards made to plaintiffs are simply transfers and would not qualify as social costs.

Of course, if we are to attribute court (or bad debt collection) costs to pathological gamblers, we must be certain that the gambling-specific pathological disorder leads to the costs in question. As noted above, Thompson, et al. (1997, pp. 87–88) found evidence that pathological gamblers have other pathological tendencies, and their behavior may result in legal action by damaged parties. Nonetheless, let us assume that gambling is the only vice toward which pathological gam-

---

[35] Note that an employer will either fire the worker or lower his wage when the value of the marginal productivity of the worker falls below the worker's wage rate. In either case, the employer is free to find another worker whose value of marginal productivity meets or exceeds the wage rate.

[36] The argument that default on bad debts will lead to higher prices (interest rates, for example), and that this is a social cost, is the result of misunderstanding the distinction between pecuniary and technological externalities. Any externalities that merely alter relative prices are pecuniary, not technological.

[37] To be clear, it is important to remember that the simple fact that government spends resources in attempts to alleviate the negative effects of pathological gambling is not sufficient for these effects to be classified as social costs.

blers are inclined that might lead to action in civil courts. Let us further assume that someone other than the gambler pays these court costs, *and* that, at the time he decides to gamble, the gambler is aware that he will not pay this cost. In this somewhat unlikely case, the $848 in court costs attributed to civil action is appropriately considered a social cost, since societal wealth is reduced as resources are used in ways other than they would have been in the absence of the pathological affliction.

As noted by Tullock (1967), the value of thefts should not be included in social cost measures because they are simply transfers. However, the costs of police, trials, and incarceration—to the extent that they are caused by the pathological affliction, and to the extent that pathological gambling is a primary disorder—are real social costs of gambling. Subtracting the $1,733 which Thompson, et al. attribute to thefts from their $3,498 estimate of total criminal justice costs yields $1,765 which *could* be appropriately included in social cost estimates.[38]

Assume that those who seek therapy for their gambling problem would not require treatment in the absence of their gambling-specific problem. Assume further that at the moment that the gambler makes the decision to gamble he believes that he will not pay these therapy costs even if he becomes addicted. Under these questionable assumptions, the $361 attributed to therapy could be considered a real social cost.

The last item Thompson, et al. consider is government welfare cost. This cost is clearly an income transfer that does not belong in a measure of the social costs of pathological gambling. As noted previously, the social cost (i.e., excess burden) of taxes used to finance such payments would be a social cost. Lacking information about the magnitude of these costs, the $334 attributed to welfare cost should be deleted from the calculations.[39]

Using the economics paradigm for defining social costs, the

---

[38] Again we should emphasize that it is appropriate to include the full value of this as a social cost only if pathological gambling is a primary disorder. See Shaffer, et al. (1997), WEFA (1997), and Abt (1997).

[39] A balanced discussion of the effects of legalized gambling on government welfare programs would require the consideration of jobs created by gambling establishments and any resulting decrease in the number of welfare recipients. When this is taken into account, the overall effect on welfare expenditures may indeed be lower as the result of legalizing gambling. Of course, whether the net impact of legalized gambling on welfare expenditures is positive or negative, such expenditures are transfers. Using the economics definition of social cost, they do not represent social costs.

Thompson, et al. estimate of social costs (per pathological gambler per year) must be reduced from $9,469 to $2,974. Several important caveats apply. First, as mentioned earlier, the full $2,974 is a valid social cost estimate only if pathological gambling is a primary disorder. To the extent that it is not, the social costs attributed to gambling must be reduced further. Second, recall that the estimate is based on a survey of Gamblers Anonymous members. If these people tend to represent the worst cases, social cost estimates based on their behavior would overestimate the average. On the other hand, Thompson, et. al. ignore social costs that may occur as a result of pathological gambling. Obviously, social cost studies that fail to take account of these complications will be unreliable and will incorrectly estimate the social costs attributable to pathological gambling. Indeed, given the limited understanding of pathological gambling, whether it is a primary or secondary disorder, and other complications, the question of whether gambling has an effect on the overall amount of social costs must remain unanswered, pending further research.

Other Alleged Social Costs

In addition to the items discussed and estimated by Thompson, et al. (1997), there are other social costs of gambling, according to many researchers. Table 4 lists these and gives explanations why they are not social costs under the economics paradigm.

"Industry cannibalization" is the term used by many researchers to describe the negative effects gambling establishments have on neighboring businesses. For example, when casinos open in a particular town, sales at nearby restaurants and other entertainment firms may fall. This consequence of casino introduction is considered by many to be a social cost.[40] Adherents to this view argue that any positive economic effects of casinos are offset by losses to other industries, so net economic growth is unlikely.

Of course, legalized gambling industries may replace other busi-

[40] See Eadington (1993; 1995a; 1995b; 1996), Evart (1995), Gazel and Thompson (1996), Goodman (1994a; 1994b; 1995b), Grinols (1994a; 1994b; 1995), Grinols and Omorov (1996), Kindt (1994), and Rose (1995) for a variety of views. The classification of industry cannibalization as a social cost ignores the fact that pure shifts in employment due to the demonstration of consumers' preferences increase welfare. In such cases, production is shifted from less- to more-preferred goods and services. In addition, average wage rates are likely to increase, as new industries must offer higher wages to attract workers from their existing jobs.

Table 4
Alleged "Social Costs" of Gambling

Alleged Social Cost	Economic Perspective
(1) income lost from missed work; (2) decreased productivity on the job; (3) depression and physical illness related to stress; (4) increased suicide attempts[1]	Costs borne by gambler
(5) bailout costs; (6) unrecovered loans to pathological gamblers; (7) unpaid debts and bankruptcies; (8) higher insurance premiums resulting from pathological gambler-caused fraud; (9) corruption of public officials; (10) strain on public services; (11) industry cannibalization	Transfers or pecuniary externalities
(12) divorces caused by gambling	Value judgment[2]

[1]Suicide can be considered an act of rational choice (Crouch, 1979, p. 182). Even so, if a pathological disorder drives a person to commit suicide, then his survivors may suffer a psychic cost, which can be considered a negative technological externality, depending on related parties' utility functions. Nonetheless, these costs are arguably internalized. Psychic costs could result from any natural-cause death; should we therefore classify death as a social cost of life?

[2]Even if pathological disorders (solely) cause divorces, the implicit value judgment is that marriage is good and divorce is bad, regardless of the circumstances.

nesses.[41] This is always the case when one producer offers a product or service that consumers prefer to those previously available. "Cannibalization" (the result of *competition*) is the normal and healthy part of the market process that helps ensure that consumers get the products they desire most. From a social welfare perspective, the significant issue is not whether some firms are replaced by others, but whether the introduction of the new product increases total societal wealth.[42]

[41] Walker and Malik (1999) address the effects of casinos on the greyhound and horse racing industries.

[42] Detlefsen (1996, pp. 14–15) explains, "Invocation of the substitution effect [argument] in this context not only presumes a static, zero-sum economy in which no business can grow except at the expense of other firms. It mistakenly implies that certain types of commercial activities, such as casino gambling, create no new 'real' wealth and provide no 'tangible' products of value. That view overlooks the key point that all voluntary economic exchanges presumably are intended to improve the positions and advance the preferences of *both* parties (in other words, improve their social welfare). That the gains from such exchanges (particularly in a wealthier, service-oriented economy in which a greater portion of disposable income is consumed for recreational activities)

While there may be some industries harmed by the introduction of legalized gambling, recent evidence suggests that overall state economic growth tends to increase as a result of legalized gambling. Walker and Jackson (1998) empirically test the effects of state-level gambling revenues on economic growth. They find statistically significant evidence that growth in a state's gambling industry tends to promote economic growth in the state (i.e., it increases per capita income).[43]

Many authors will admit that legalized gambling can promote economic growth, but only if the gambling revenues are the result of tourist spending. That is, they argue that gambling services must be "exported," otherwise the growth in gambling industries comes at the expense of other industries.[44] This export base theory receives wide acceptance by gambling researchers, although there is little, if any, supporting empirical evidence.[45] Walker and Jackson (1998) address this issue, and find that the export base theory does not appear valid in the case of legalized gambling.

SOCIAL COSTS FROM GAMBLING PROHIBITION AND THE LEGALIZATION PROCESS

From an economic perspective, not only have researchers inappropriately classified numerous consequences of pathological gambling as "social costs," they have also omitted several legitimate social costs from their studies. Some of these costs are associated with government restrictions and the legalization process.

---

are not easily quantifiable in every case is beside the point. After all, the only true measure of the value of entertainment-oriented goods and services in the diverse U.S. economy ultimately remains in the spending preferences expressed by individual consumers."

[43] Technically speaking, the paper investigates whether Granger causality exists between per capita income and gambling revenues at the state level. They tested the casino and greyhound racing industries. For a detailed description of Granger causality, see Walker and Jackson (1998) and their works cited. In addition, all econometrics texts include a discussion of the topic. For example, see Enders (1995, pp. 315–316) or Gujarati (1995, pp. 620–623).

[44] In a particularly simplistic exposition of the theory, Thompson (1996) argues that the economics of legalized gambling works like a "bath tub." Much like the discredited pre-17th-century mercantilists, Thompson (1996), Gazel and Thompson (1996), and Grinols and Omorov (1996) argue that the inflow of money into a region is a critical determinant of economic growth. For details on the flaws of this argument, see Ekelund and Hébert (1997, pp. 42–44), Carbaugh (1997, pp. 20–23), or any modern discussion of mercantilism.

[45] For detailed explanations of its flaws, see Vaughan (1988), Hoover and Giarratani (1984), and Walker (1998a; 1998b; 1999).

Social Costs from Restricting Quantity

While pathological gambling may lead to social costs, government restrictions that limit the availability of legal gambling also produce social costs. One cost occurs because banning gambling reduces consumers' and producers' surpluses.[46] This is similar to the social cost caused by monopolists who artificially restrict output.[47] Any government restriction on the quantity of gambling opportunities available that falls short of a total ban produces such losses, but to a lesser extent than with the total ban.[48]

"Rent Seeking" by Proponents and Opponents of Legalized Gambling

The mere fact that there is a government ban on gambling—and that government policy can be influenced—creates an incentive to engage in socially wasteful behavior. Specifically, the effort by opponents and proponents of legalized gambling to influence government policy constitutes a social cost because the resources used in this way would have otherwise been used to produce goods and services. This social cost is the result of "rent seeking behavior," and is to be expected given the legal framework within which gambling is controlled. Tollison describes rent seeking behavior, and provides a useful example illustrating why it is the *institutional framework* in which gambling is legalized that is the source of this social cost:

> Consider a simple example in which the king wishes to grant a monopoly right in the production of playing cards. In this case artificial scarcity is created by the state, and as a consequence, monopoly rents are present to be captured by monopolists who seek the king's favor. Normally, these rents are thought of as transfers from playing card consumers to the card monopolist. Yet in the example, this can only be the case if the aspiring monopolists employ no real resources to compete for the monopoly rents. To the extent that real resources are spent to capture monopoly rents in such ways as lobbying, these expenditures

---

[46] Roughly speaking, producers' surplus can be thought of as profit. Consumers' surplus was defined earlier, and is analogous to "profit." Both represent wealth to the relevant group. See Collinge and Ayers (1997) for a principles-level discussion of lost producers' and consumers' surpluses.

[47] See Ekelund and Ault (1995, chapter 9), or any intermediate microeconomics text.

[48] Wright (1995, p. 99) explains the benefits of moving away from a total ban on casino gambling; it removes economic distortions, including "deadweight losses, enforcement costs, and incentives to lobby and bribe." Eadington (1996, p. 6) is another of the researchers who has identified the benefits to consumers of gambling legalization, and (implicitly) the cost to consumers of restrictions on legalized gambling.

create no value from a social point of view. *It is this activity of wasting resources in competing for artificially contrived transfers that is called rent seeking. If an incipient monopolist hires a lawyer to lobby the king for the monopoly right, the opportunity cost of this lawyer (e.g., the contracts that he does not write while engaged in lobbying) is a social cost of the monopolization process.* (Tollison, 1982, pp. 577–578; italics added)

Johnson (1991, p. 336) stresses the government's role in rent seeking behavior: "the most serious rent seeking is caused by government, because only government has the power to create and enforce monopoly powers and to create and finance a system of special privileges without the possibility of competition eroding the values of these monopoly powers or special privileges."

Since gambling industries are not perfectly competitive (indeed, the number of casinos, racetracks and lotteries is generally limited by local governments) a particular gambling firm may expect a level of profits above the normal level.[49] Based on Tullock's discussion (1967, p. 231), the maximum rent seeking expenditures by a prospective gaming firm owner would be the subjective risk-adjusted net present value of the future stream of profits for that firm.[50] The total rent seeking (lobbying) expenditures of all potential gaming industry firms could obviously be very large.

The opponents of legalized gambling, of course, may also use resources in attempts to prevent legalization.[51] For example, firms that fear being "cannibalized" by legalized gambling would be willing to sacrifice up to the risk-adjusted present value of their expected losses from having legal gambling operations in the state, in an effort to prevent legalization.[52] As with the gambling proponents, the sum of these expenditures could be quite sizable.

The rent seeking expenditures (i.e., lobbying) for a particular legislative proposal is a sunk cost—it cannot be retrieved. Therefore, we would expect a sizable amount of rent seeking expenditures each time a legalization proposal is considered.

---

[49] This "normal level" of profit, as well as the difference between economic and accounting profit is explained in any intermediate microeconomics text.

[50] The prospective gaming firm adjusts its willingness to lobby based on its perception of the likelihood of legalization.

[51] Opponents may include other entertainment industries, restaurants, hotels, and gaming industries or firms in other states.

[52] As in the case of the proponents, this ignores the expenditures by parties whose gains or losses are not measured in terms of expected profit changes. An example of such an opponent would be a religious organization.

The social costs caused simply as the result of the gambling legalization process could be very large. Tullock (1967, p. 230) explains, "Transfers themselves cost society nothing, but for the people engaging in them they are just like any other activity, and this means that large amounts of resources may be invested in attempting to make or prevent transfers. These largely offsetting commitments of resources are totally wasted from the standpoint of society as a whole." Both Tullock (1967, p. 228) and Krueger (1974, p. 291) suggest that measurement of these social costs would be complicated. But, Tullock explains, "the potential returns are large, and it would be quite surprising if the investment was not also sizable."

Competing for Limited Permits

Even after a state legalizes gambling, local governments may regulate the number, size, types, location, and ownership of potential gambling establishments. This, of course, creates an incentive for the potential owners to compete for the limited number of permits. The rent seeking at this stage could potentially exceed that described above, since many more firms may be interested in competing for gambling permits once gambling has been legalized. This situation is analogous to Kreuger's (1974, p. 301) case of import permits, in which "an import prohibition might be preferable to a nonprohibitive quota if there is competition for licenses under the quota."[53] Applied to the restriction on the availability of gambling, a complete (non-negotiable) ban on gambling may be preferable to the current process of campaigns and votes on legalization and subsequent competition for gaming permits.

Efforts by Government Officials and other Recipients of Rent Seeking Expenditures

Another socially wasteful behavior related to legalizing gambling is the effort of government bureaucrats (and others) attempting to be on the receiving side of the rents dissipated by the parties discussed above. Krueger (1974, p. 293) explains this behavior by bureaucrats: "Successful competitors for government jobs might experience large

---

[53] Krueger finds that the more inelastic demand for the product, the greater the deadweight loss from rent seeking.

windfall gains even at their official salaries. However, if the possibility of those gains induces others to expend time, energy, and resources in seeking entry into government services, the activity is competitive for present purposes." Again, this cost would be difficult to estimate, but it could be significant.

CONCLUSION

Under any circumstance, assessing the social costs and benefits of a public policy is a difficult and imprecise endeavor. Even with a clear and conceptually defensible definition of social costs and benefits, the practical problems of quantifying policy impacts are formidable. In short, the best of such studies should be taken with a liberal grain of salt. But when these studies are done without the conceptual guidance provided by a clear, explicit definition of what is being measured, the results of the studies can be worse than useless. They are more likely to obscure relevant issues than to inform the policy debate.

Such appears to be the case with much of the literature dealing with estimating the social cost of gambling. In this literature, real and redistribution effects have been confused, incorrectly estimated and inappropriately merged. The concept of externality has been misunderstood and incorrectly applied. Rent seeking behavior has been ignored and industry competition misinterpreted.

Welfare economics provides one framework for adding a measure of conceptual rigor to the business of social cost calculations. It provides a body of literature and thought that is the result of over a century of scholarly inquiry. There may be other frameworks for welfare calculations which have merit, though we are not aware of any other academic discipline that views these issues with more seriousness and rigor than welfare economics.

Our main point is simple. Whatever the framework used by analysts for welfare calculations, that framework should be made explicit. If an author claims something to be a social cost, that author has an obligation to inform the reader of the criteria for the assessment. Simple appeals to "common sense," unsupported by objective criteria that offer some measure of conceptual rigor, are of little value in scholarly discourse. Such appeals often serve more to obscure than to enlighten.

REFERENCES

Abt Associates. (1997). Evaluation of the Minnesota state-funded compulsive gambling treatment programs. Paper prepared for the Division of Mental Health, Minnesota Department of Human Services.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (DSM-IV)* (4th ed.). Washington, DC: American Psychiatric Association.

Barnett, A. H. (1978). *Taxation for the control of environmental externalities.* Charlottesville, VA: University of Virginia Ph.D. Dissertation.

Barnett, A. H. (1980). The Pigouvian tax rule under monopoly. *American Economic Review, 70,* 1037–1041.

Barnett, A. H., & Bradley, J. (1981). An extension of the Dolbear triangle. *Southern Economic Journal, 47,* 792–798.

Barnett, A. H., & Kaserman, D. L. (1998). The simple welfare economics of network externalities and the uneasy case for subscribership subsidies. *Journal of Regulatory Economics, 13,* 245–254.

Baumol, W. J., & Oates, W. E. (1988). *The theory of environmental policy.* New York, NY: Cambridge University Press.

Becker, G. S. (1968). Crime and punishment: An economic approach. *Journal of Political Economy, 76,* 169–217.

Becker, G. S. (1992). Habits, addictions, and traditions. *Kyklos, 45,* reprinted in Becker (1996), 118–135.

Becker, G. S. (1996). *Accounting for tastes.* Cambridge, MA: Harvard University Press.

Becker, G. S., Grossman, M., & Murphy, K. M. (1991). Rational addiction and the effect of price on consumption. *American Economic Review, 81,* reprinted in Becker (1996), 77–84.

Becker, G. S., Grossman, M., & Murphy, K. M. (1994). An empirical analysis of cigarette addiction. *American Economic Review, 84,* reprinted in Becker (1996), 85–117.

Becker, G. S., & Murphy, K. M. (1988). A theory of rational addiction. *Journal of Political Economy, 96,* reprinted in Becker (1996), 50–76.

Bhagwati, J. (1983). DUP activities and rent seeking. *Kyklos, 36,* 634–637.

Bhagwati, J., Brecher, R. A., & Srinivasan, T. N. (1984). DUP activities and economic theory. *European Economic Review, 24,* 291–307.

Boreham, P., Dickerson, M., & Harley, B. (1996). What are the social costs of gambling?: The case of the Queensland machine gaming industry. *Australian Journal of Social Issues, 31,* 425–442.

Briggs, J. R., Goodin, B. J., & Nelson, T. (1996). Pathological gamblers and alcoholics: Do they share the same addictions? *Addictive Behaviors, 21,* 515–519.

Carbaugh, R. (1997). *International economics* (6th ed.). Cincinnati, OH: Southwestern College Publishing.

"Casinos in Florida." (1995). Office of Planning and Budgeting, Tallahassee, FL.

Chaloupka, F. (1991). Rational addictive behavior and cigarette smoking. *Journal of Political Economy, 99,* 722–742.

Collinge, R. A., & Ayers, R. M. (1997). *Economics by design.* Upper Saddle River, NJ: Prentice Hall.

Crouch, R. (1979). *Human behavior: An economic approach.* North Scituate, MA: Duxbury Press.

Detlefsen, R. (1996). Anti-gambling politics—Time to reshuffle the deck. Washington, DC: Competitive Enterprise Institute.

Eadington, W. R. (1989). Problem gambling and public policy: Alternatives in dealing with problem gamblers and commercial gambling. In Shaffer, et al. (eds.), 175–186.

Eadington, W. R. (1993). The emergence of casino gaming as a major factor in tourism markets: Policy issues and considerations. Reno, NV: Institute for the Study of Gambling and Commercial Gaming.

Eadington, W. R. (1995a). Calling the bluff: Analyzing the legalization of casino-style gaming—a comment on "Bluff or winning hand? Riverboat gambling and regional employment and unemployment." Reno, NV: Institute for the Study of Gambling & Commercial Gaming.

Eadington, W. R. (1995b). Economic development and the introduction of casinos: Myths and realities. *Economic Development Review, 13,* 51–54.

Eadington, W. R. (1996). The legalization of casinos: Policy objectives, regulatory alternatives, and cost/benefit considerations. *Journal of Travel Research, 34,* 3–8.

Ekelund, R. B., & Ault, R. (1995). *Intermediate microeconomics: Price theory and applications.* Lexington, MA: D. C. Heath.

Ekelund, R. B., & Hébert, R. F. (1997). *A history of economic theory and method* (4th ed.). New York, NY: McGraw-Hill.

Enders, W. (1995). *Applied econometric time series.* New York, NY: John Wiley & Sons, Inc.

Evart, C. (1995). Presentation at the *Sports and entertainment* conference, session on "Gambling and gaming," Federal Reserve Bank of Atlanta. Audiocassette.

Frank, R. H. (1988). *Passions within reason: The strategic role of the emotions.* New York, NY: W. W. Norton & Company.

Gazel, R. C. (1998). The economic impacts of casino gambling at the state and local levels. *Annals, 556,* AAPSS, 66–84.

Gazel, R. C., & Thompson, W. N. (1996). Casino gamblers in Illinois: Who are they? UNLV manuscript.

Goodman, R. (1994a). *Legalized gambling as a strategy for economic development.* Northampton, MA: United States Gambling Study.

Goodman, R. (1994b). Testimony and prepared statement. In U.S. House, 4–8 and 56–70.

Goodman, R. (1995a). Legalized gambling: Public policy and economic development issues. *Economic Development Review, 13,* 55–57.

Goodman, R. (1995b). *The luck business: The devastating consequences and broken promises of America's gambling explosion.* New York, NY: The Free Press.

Grinols, E. L. (1994a). Bluff or winning hand? Riverboat gambling and regional employment and unemployment. *Illinois Business Review, 51,* 8–11.

Grinols, E. L. (1994b). Testimony and prepared statement. In U.S. House, 8–11 and 71–76.

Grinols, E. L. (1995). Gambling as economic policy: Enumerating why losses exceed gains. *Illinois Business Review, 52,* 6–12.

Grinols, E. L., Mustard, D. B., & Dilley, C. H. (1999). Casinos and crime. University of Illinois manuscript.

Grinols, E. L., & Omorov, J. D. (1996). Development or dreamfield delusions? Assessing casino gambling's costs and benefits. *Journal of Law and Commerce, 16,* 49–87.

Gross, M. (1998a). Legal gambling as a strategy for economic development. *Economic Development Quarterly, 12,* 203–213.

Gross, M. (1998b). Response to a comment on "Legal gambling as a strategy of economic development." *Economic Development Quarterly, 12,* 217.

Gujarati, D. N. (1995). *Basic econometrics* (3rd ed.). New York, NY: McGraw-Hill.

Harberger, A. C. (1971). Three basic postulates for applied welfare economics: An interpretive essay. *Journal of Economic Literature,* 785–797.

Hicks, J. R. (1940). The valuation of the social income. *Economica, 7,* 105–124.

Hoover, E. M., & Giarratani, F. (1984). *An introduction to regional economics* (3rd ed.). New York, NY: Alfred A. Knopf.

Johnson, D. B. (1991). *Public choice: An introduction to the new political economy.* Mountainview, CA: Bristlecone Books.

Just, R. E., Hueth, D. L., & Schmitz, A. (1982). *Applied welfare economics and public policy.* Englewood Cliffs, NJ: Prentice-Hall.

Kaldor, N. (1939). Welfare propositions of economics and interpersonal comparisons of utility. *Economic Journal, 49,* 549–551.

Kindt, J. W. (1994). The economic impacts of legalized gambling activities. *Drake Law Review, 43,* 51–95.

Kindt, J. W. (1995). U.S. national security and the strategic economic base: The business/economic impacts of the legalization of gambling activities. *Saint Louis University Law Journal, 39,* 567–584.

Krueger, A. (1974). The political economy of the rent-seeking society. *American Economic Review, 64,* 291–303.

LaFalce, J. J. (1994). Opening statement. In U.S. House, 1–4 and 37–41.

Ladd, H. F. (1995). Introduction to Panel III: Social costs. In Tannenwald (ed.), 105–106.

Landsburg, S. E. (1993). *The armchair economist.* New York, NY: Free Press.

Layard, P. R. G., & Walters, A. A. (1978). *Microeconomic theory.* New York, NY: McGraw-Hill.

Lesieur, H. R. (1989). Current research into pathological gambling and gaps in the literature. In Shaffer, et al. (eds.), 225–248.

Lesieur, H. R. (1995). The social impacts of expanded gaming. Paper presented at "Future of Gaming Conference."

Lesieur, H. R., & Blume, S. B. (1987). The South Oaks Gambling Screen (SOGS): A new instrument for the identification of pathological gamblers. *American Journal of Psychiatry, 144,* 1184–1188.

Lesieur, H. R., & Rosenthal, R. J. (1991). Pathological gambling: A review of the literature. *Journal of Gambling Studies, 7,* 5–40.

Mobilia, P. (1990). *An economic analysis of addictive behavior: The case of gambling.* New York, NY: City University of New York Ph.D. Dissertation.

Mueller, D. C. (1989). *Public choice II.* New York, NY: Cambridge University Press.

National Gambling Impact Study Commission. (1999). Final Report. Washington, DC: U. S. Government.

National Opinion Research Center. (1999). Report to the National Gambling Impact Study Commission. Chicago, IL: University of Chicago.

Nower, L. M. (1998). Social impact on individuals, families, communities and society: An analysis of the empirical literature. Washington University (St. Louis) manuscript.

Orphanides, A., & Zervos, D. (1995). Rational addiction with learning and regret. *Journal of Political Economy, 103,* 739–758.

Politzer, R. M., Morrow, J. S., & Leavey, S. B. (1985). Report on the cost-benefit/effectiveness of treatment at the Johns Hopkins Center for Pathological Gambling. *Journal of Gambling Behavior, 1,* 131–142.

Posner, R. A. (1975). The social costs of monopoly and regulation. *Journal of Political Economy, 83,* 807–827.

Rose, A. (1998). The regional economic impacts of casino gambling: Assessment of the literature and establishment of a research agenda. Study prepared for the National Gambling Impact Study Commission. State College, PA: Adam Rose and Associates.

Rose, I. N. (1995). Gambling and the law: Endless fields of dreams. In Tannenwald (ed.), 118–146.

Rosen, H. S. (1992). *Public finance* (3rd ed.). Homewood, IL: Irwin.

Ryan, T. R. (1998). Testimony before the National Gambling Impact Study Commission.

Shaffer, H. J., & Hall, M. N. (1996). Estimating the prevalence of adolescent gambling disorders: A quantitative synthesis and guide toward standard gambling nomenclature. *Journal of Gambling Studies, 12,* 193–214.

Shaffer, H. J., Hall, M. N., & Vander Bilt, J. (1997). Estimating the prevalence of disordered gambling behavior in the United States and Canada: A meta-analysis. Paper for the NCRG.

Shaffer, H. J., Hall, M. N., Walsh, J. S., & Vander Bilt, J. (1995). The psychological consequences of gambling. In Tannenwald (ed.), 130–141.

Shaffer, H. J., Stein, S. A., Gambino, B., & Cummings, T. (Eds.) (1989). *Compulsive gambling: Theory, research, and practice.* Lexington, MA: Lexington Books.

Stigler, G. J., & Becker, G. S. (1977). De gustibus non est disputandum. Reprinted in Becker (1996), 24–49.

Tannenwald, R. (Ed.) (1995). *Casino development: How would casinos affect New England's economy?* Special report no. 2, symposium proceedings. Federal Reserve Bank of Boston.

"Task force on gambling addiction in Maryland." (1990). Baltimore, MD: Maryland Department of Health and Mental Hygiene.

Thompson, W. N. (1996). An economic analysis of a proposal to legalize casino gambling in Ohio: Sometimes the best defense is to NOT take the field. UNLV manuscript.

Thompson, W. N. (1997). Sorting out some fiscal policy matters regarding gambling. Paper presented at the Southern Economic Association meeting.

Thompson, W. N., Gazel, R. C., & Rickman, D. (1996). The social costs of gambling in Wisconsin. Policy Research Institute Report 9, no. 6.

Thompson, W. N., Gazel, R. C., & Rickman, D. (1997). Social and legal costs of compulsive gambling. *Gaming Law Review, 1,* 81–89.

Tollison, R. D. (1982). Rent seeking: A survey. *Kyklos, 35,* 575–602.

Tullock, G. (1967). The welfare costs of tariffs, monopolies, and theft. *Western Economic Journal,* 224–232.

U.S. House of Representatives. (1995). Committee on Small Business. *The national impact of casino gambling proliferation.*

Varian, H. (1999). *Intermediate microeconomics: A modern approach* (5th ed.). New York, NY: W. W. Norton.

Vaughan, R. J. (1988). Economists and economic development. *Economic Development Quarterly, 2,* 119–123.

Viner, J. (1931). Cost curves and supply curves. *Zeitschrift für Nationalökonomie, 111,* 23–46.

Volberg, R. (1994). The prevalence and demographics of pathological gamblers: Implications for public health. *American Journal of Public Health, 84,* 237–241.

Volberg, R. (1996). Prevalence studies of problem gambling in the United States. *Journal of Gambling Studies, 12,* 111–128.

Volberg, R., & Steadman, H. J. (1988). Refining prevalence estimates of pathological gambling. *American Journal of Psychiatry, 145,* 502–505.

Volberg, R., & Steadman, H. J. (1989). Prevalence estimates of pathological gambling in New Jersey and Maryland. *American Journal of Psychiatry, 146,* 1618–1619.

Walker, D. M. (1998a). *Sin and growth: The effects of legalized gambling on state economic development.* Auburn, AL: Auburn University Ph.D. Dissertation.

Walker, D. M. (1998b). Comment on "Legal gambling as a strategy for economic development." *Economic Development Quarterly, 12,* 214–216.

Walker, D. M. (1999). Legalized casino gambling and the export base theory of economic growth. *Gaming Law Review, 3,* 157–163.

Walker, D. M., & Jackson, J. D. (1998). New goods and economic growth: Evidence from legalized gambling. *Review of Regional Studies, 28,* 47–69.

Walker, D. M., & Malik, S. (1999). Casino gambling and the fate of the horse and dog racing industries. Georgia College & State University working paper.

Walker, M. B., & Dickerson, M. G. (1996). The prevalence of problem and pathological gambling: A critical analysis. *Journal of Gambling Studies, 12,* 233–249.

WEFA Group (1997). A study concerning the effects of legalized gambling on the citizens of the state of Connecticut. Prepared for the Connecticut Department of Revenue Services.

Wright, A. W. (1995). High-stakes casinos and economic growth. In Tannenwald (ed.), 52–57.

Zorn, K. (1998). The economic impact of pathological gambling: A review of the literature. Indiana University manuscript.