

January, 2012

The Current Status of Prison Privatization Research on American Prisons

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August 2010

Introduction

In many ways, any discussion of prison privatization strikes at the heart of the fundamental goals and purposes of prison and punishment. The discussion elevates such themes as the role of the private sector in administering punishment, the importance of metrics to evaluate and compare how well the privately and publicly operated prisons provide services, the structure and form of oversight and accountability to insure punishment is just and fair, and the measurement of cost and efficiency. To be sure, many of these issues are crucial even in the absence of a privatization debate. However, because there are impassioned proponents and opponents on both sides of the issue, the prison privatization literature has provoked both earnest debate and fractious polemic. One might expect that the importance of this topic would have elevated prison privatization research and encouraged the funding of large scale studies. In fact, there are very few studies comparing privately and publicly operated facilities. Segal and Moore (2002) identified about 23 U.S. cost comparison studies and fewer quality studies. Many of those studies were of questionable value. The most recent review, a meta-analysis by Lundahl et. al. (2009) only identified 12 studies of cost and quality meeting their criteria for sound methodology.

Even with this limited set of privatization studies, different reviewers have come to opposing conclusions about what the research literature shows. Of the five reviews I cover, three conclude there is no difference between the cost and quality of private and public prisons, and two conclude private prisons are quite a bit cheaper to operate, and produce a similar level of quality. At the end of this paper, I discuss why the great majority of studies, especially those assessing quality, have used inadequate methods to contrast the two sectors.

Private Corrections in the United States

The privatization of prison operations is a fairly recent historical phenomenon. Corrections Corporation of America (CCA) was the first private prison company in the United States beginning operations in 1983. It has the largest footprint in American prison privatization with 17,000 employees and 75,000 inmates and detainees. Its web site makes the claim that CCA

is the fourth largest correctional system in America, ranking only behind the Federal Bureau of Prisons, California, and Texas. The GEO Group, originally Wackenhut Corrections Corporation, is a close second to CCA with 53,000 inmates and detainees under its supervision in the United States. The closest competitors to CCA and GEO are Cornell Corrections with about 12,800 inmates and detainees and the Management and Training Corporation (MTC) with about 17,000 beds housing prisoners and detainees. CCA, GEO, and Cornell are publicly traded companies with stock values in the 22 to 25 dollar range. MTC is a later entry into the business and was first founded as a jobs training organization operating U.S. Department of Labor Job Corps centers as early as 1966. While there are other firms providing prison management services, these are the largest and manage a large proportion of American privatized prisons.

In the next section, I review the recent growth in prison privatization. The data are compiled by the Bureau of Justice Statistics (BJS); however, they do not include aliens who have been apprehended and detained under the authority of U.S. Immigrations and Customs Enforcement (ICE). ICE also uses the private providers listed above by directly contracting for their services or indirectly with agreements with local governments some of which have contracted for beds with private companies. At the end of fiscal year 2009, there were 5,400 detainees in directly contracted beds. However, there is no systematic way to calculate the number of detainees held for ICE in local jails which may be operated by private providers.

Prisoners Held in Privately Operated Prisons

There were 128,524 inmates held in private prisons on December 31, 2008. This represented 8 percent of the 1,610,466 inmates held in all state and federal prisons on that date. Of the total number of inmates held in privately operated prisons, 33,162 were imprisoned under federal authority and 95,362 were confined under state authority. The number of prisoners held in privately operated prisons grew by 42 percent from 2000 to 2008. In 2000, private prisons held 6.5 percent of all federal and state inmates. However, the private sector's share of inmates grew from 6.5 percent in 2000 to 8 percent in 2008. As a proportion of its inmate population, New Mexico held the most inmates in privately operated prisons, 45.8 percent, followed by Montana, 36.4 percent, Hawaii, 35.4 percent, Vermont, 34.3 percent, Alaska, 28.9 percent,

Mississippi, 24.2 percent, Colorado, 22.7 percent, Oklahoma, 22.1 percent, and Arizona, 21.1 percent. The Federal Bureau of Prisons had the largest number of privately held prisoners, 33,162. This includes 8,644 inmates held in non-secured community halfway houses. States with large privately held inmate populations included Texas, 20,041, Florida, 9,158, Arizona, 8,369, Oklahoma, 5,711, Mississippi, 5,497, Colorado, 5,274, Tennessee, 5,155, Georgia, 5,138, and California, 3,019. From 2000 through 2008, the Federal Bureau of Prisons growth rate in privately operated beds, 10.5 percent, has been about three times faster than the average state growth rate of 3.4 percent. These data come from Bureau of Justice Statistics reports and statistical tables issued in 2009 (Sabol, West, and Cooper, 2009; West and Sabol, 2009). The table below comes from West and Sabol (2009) and shows the year-to-year growth from December 31, 2000 through June 30, 2008.

Insert Table 1 about here

The growth in private prison beds is symptomatic of the the growth in the inmate population over that time span. The private sector's "market share" has increased from 6.5 to 8 percent; however, the health of the industry has been driven by the tremendous expansion of prison capacity over the last decade, and almost half of the growth in private prison beds has been from contracts let by the Federal Bureau of Prisons.

Meta-analyses

There have been a number of reviews of the literature summarizing the studies which have compared the cost and quality of privately and publicly operated prisons within a jurisdiction. My colleagues and I reviewed a large part of this literature (Gaes, Camp, and Saylor, 1998) previously indicating in detail the methodological problems with the majority of these studies. The studies that compare private and public prisons on cost and quality are listed in Appendix II of this paper. I include a legend in that Appendix so that the reader can identify which study is referenced by which review article. Appendix II also contains other articles that compose the prison privatization literature.

In this section, I review two meta-analyses. In the following section, I cover reviews by other researchers that are often referenced by privatization proponents and opponents. Meta-analysis is a technique that calculates a common metric called an effect size for each study result so that the analyst can calculate an average effect across all of the studies. Many scholars consider meta-analysis to be the most systematic technique to review an area of research.

Lundahl et al., (2009) conducted a meta-analysis of 12 studies compiling costs and quality effect sizes. One of the studies had two different privatization comparisons allowing the researchers to develop different effect sizes for each comparison. Lundahl et al., selected studies that met the following criteria: a study had to have an explicit comparison of a private and public facility; there had to be sufficient information to calculate effect sizes; the study had to be a primary analysis, not a citation of another study; the prisons had to house adults; the study had to be retrievable from recognized databases or references contained in the studies that were found; the studies had to have actual findings and not hypothetical findings or projections of findings.

The results of the meta-analysis indicated that there was a small cost savings associated with privatization, about 2.2 percent; however, the quality of confinement indicators favored the public prisons. However, all of the effect sizes were so small that the authors argued that prison "... privatization provides neither a clear advantage nor disadvantage compared with publicly managed prisons.(Lundahl et al., p. 392.)"

Pratt and Maahs (1999) used 24 studies containing 33 evaluations of private and public adult male prisons to conduct their meta-analysis. To be included in their meta-analysis, a study had to have enough information to calculate inmate cost per day as well as institutional characteristics that were used as statistical controls. The controls they used were the number of inmates in the facility, age of the facility, the prison's security level, and the year the study was conducted to control for the discounted value of the cost. Rather than use the cost per day in dollars, Pratt and Maahs calculated the z-score of the cost. Presumably this was calculated as the cost per day minus the mean for all 33 values of cost per day, divided by the standard deviation of these costs per day. This simply transforms the dollar metric into a normal variate. The raw dollar costs indicated that the public facilities cost \$ 41.09 per day and the private facilities \$38.64 per day. When Pratt and Maahs used a regression equation to control for the number of inmates, security level, and age of the facility, there was no statistical difference between private

and public costs. Finally, Pratt and Maahs conducted t-tests of the costs per day between public and private facilities controlling for the facility security levels. Separate t-tests were run for minimum, mixed, medium, and high security level institutions contrasting the public and private prisons. No test reached statistical significance.

Pratt and Maahs concluded from these analyses that management of the facility (public versus private) has little or no influence on costs. Rather institution size (economies of scale), security level, and age of the facility are primary determinants.

Two Opposing Reviews of the Literature

There have been other reviews of the literature and in this section I represent two opposing interpretations of the same set of privatization studies.

Perrone and Pratt (2003) reviewed the literature comparing privately and publicly operated prisons. They summarized these studies along two dimensions, quality of confinement and cost. There were nine studies that had evaluated quality of confinement; however, Perrone and Pratt emphasize that many of the original comparisons did not match the public and private prisons on such factors as facility size, custody level, and age. Two of the nine studies they review for quality of operations matched prisons on all three characteristics. Security level was always matched across the prison comparisons. However, for 5 of the 9 studies, either there was not enough information in the study to identify prison capacity or one of the sectors (public or private) had a higher maximum capacity. For six of the nine comparisons, the privately operated facilities were newer than their public counterparts, or there was no information provided in the study to determine facility age.

Charles Logan (1990) articulated domains of prison quality that included: safety, security, order, care, activity, conditions, and management. Using these dimensions, Perrone and Pratt looked for specific indicators in each study that could be construed as measures representing these domains. The security domain was represented by escapes; safety by assaults on staff or inmates; activity by program enrollments and completions; care by a review of health services; management by employee sick days used, or employee self reports of stress; order by disciplinary actions and disturbances; and conditions by indicators of a poorly kept prison. Since

Perrone and Pratt compiled this quality of confinement dimensions across seven domains and 9 studies, there were 63 possible comparisons. There was no information available for 31 of 63 of these comparisons. The private facility outperformed the public facility on 17 of the 63 comparisons. The public outperformed the private facilities on 6 of the 63 dimensions. All of the remaining contrasts were inconclusive. Perrone and Pratt summarize their quality of confinement review as follows:

Therefore, at this point it is unclear how the private facilities “measure up” in terms of their relative quality of confinement. To date, the studies are too methodologically diverse (and often too methodologically weak) to draw any firm conclusions. They typically do not control for confounding factors such as age and security level, they fail to employ similar methods of data collection, and they do not assess the domains on equal measures. Such limitations cloud our ability to determine whether private agencies operate their facilities at a higher quality than the state. (Perrone and Pratt, 2003 p. 311)

Perrone and Pratt reach a similar conclusion when they compare the per diem costs of publicly and privately operated facilities. Cost comparisons tended to favor the private sector. However, there were too many differences between characteristics of the private and public prisons that would affect cost to draw a firm conclusion. Perrone and Pratt refer to the Praat and Maahs study which used techniques to control for prison size, custody level, and age, finding no effect of sector. Perrone and Pratt conclude their review with three recommendations to bolster the empirical analysis of prison privatization. They note that almost all of the studies that have been conducted compare only a few prisons. They refer to this as the case study method. They recommend studies of a large set of prisons with sufficient information to characterize the important dimensions of prison. This would allow analysts to control for variables that could affect costs and performance while measuring key dimensions of performance. The closest any study has come to this recommendation is the research by Blumstein and Cohen (2003), and Blumstein, Cohen, and Seth (2007). Perrone and Pratt want to see more data collected on prison management practices so that future analyses can inform more precisely the policies and practices that may determine why one sector outperforms the other. Perrone and Pratt also called for a national repository of data that could be used to do a thorough analysis. While the Bureau

of Justice Statistics collects data with its separate census of prisons and jails, such a data set would have to be supplemented to do a thorough cost and quality analysis.

Segal and Moore (2002) review essentially the same body of evidence as Perrone and Pratt. They conclude without qualification that privately operated prisons were from 3.5 to 17 percent less costly. With regard to quality, they are more circumspect and state "...there is clear and significant evidence that private facilities provide at least the level of service that government-run facilities do (Segal and Moore, 2002, p. 9)."

Segal and Moore divide cost studies into three categories: rigorous, peer-reviewed studies; mostly government studies presumably of lesser quality, and a third, even less credible group composed of short reports of findings with very weak methods. In the rigorous category, Segal and Moore have listed most of the studies reviewed by Perrone and Pratt. Perrone and Pratt list one Arizona study, while Segal and Moore list two; however, neither makes reference to more recent analysis by Maximus, a professional services firm, which indicated that privatized beds were 8.5 to 13 percent more expensive than comparable public beds in Arizona (Maximus, Inc., 2006). Both the Segal and Moore study and Perrone and Pratt study were published prior to the Maximus analysis. It is curious that Segal and Moore list the OPPAGA study in the peer reviewed "A" list. OPPAGA (Office of Program Policy Analysis and Government Accountability) is a government entity in Florida and would not have submitted their analysis for peer review. However, OPPAGA's analyses are typically top notch and deserve to be listed among the more rigorous studies.

Segal and Moore believe the near universality of cheaper private beds is reason enough to conclude states will reap cost savings. They dismiss the possibility that there are underlying differences between the publicly and privately operated beds that could have biased the outcomes. Segal and Moore are less meticulous than Perrone and Pratt in their attempt to compare study rigor. They argue rather than demonstrate or analyze how studies may or may not have controlled for differences in the public and private facilities and the composition of their inmates.

Many of them went to great lengths to compensate for differences between compared facilities and to develop useful comparison figures. Moreover, there is nothing inherent in the problem of differences

between facilities that we would expect to bias results towards lower costs at private facilities. Thus the extreme one-sidedness of this literature—near universal findings of cost savings from privatization—is on its own very persuasive. (Segal and Moore, 2002, P. 3)

Missing from the Segal and Moore analysis is the methodological comparison Perrone and Pratt conducted when they compared studies on the following dimensions: real versus hypothetical cost models, identical cost calculation methods, calculation of indirect costs, security level, maximum capacity, programs provided, and age of the facility. A close examination of Perrone and Pratt's table 3 shows that private facilities were more likely to be newer, that indirect costs calculations were often missing from the analyses and that data on program services was most likely missing, or if it were present the public and private facilities were not equivalent. As I show later, based on work by Julianne Nelson, these are data that must be captured and controlled for in the analysis if we are to build a foundation for cost comparisons and policy recommendations. Unless you can pin down these differences, the policy maker may actually be buying a more expensive service, or may not have sufficient detail to demand more savings from the private contractor.

The quality analysis conducted by Segal and Moore suffers from the same lack of rigor. I am sympathetic to the difficulty in comparing quality within and across state jurisdictions. It requires a clear set of quality of confinement criteria, common definitions of variables that measure these indicators, and a model to insure that quality comparisons are made on an equal playing field. Perrone and Pratt at least tried to pick quality indicators that represented a broad spectrum of prison conditions.

A paper by Volokh (2002) is also often cited as a review of the literature that finds that the private sector outperforms the public sector on both cost and quality dimensions. This paper actually refers to the Segal and Moore review as support for its conclusions. In the section of the paper that actually reviews studies on cost and quality, Volokh specifically refers to the findings of only three studies (see Volokh, 2002, section B.2 *Evidence from the Studies*).

More rigorous reviews of the literature are ambivalent. Direct comparisons of cost and quality neither favor the public nor the private sector. Using a sound cost methodology, such as the one I present later in this paper, jurisdictions should be able to compare the relative costs of

private and public prisons. Analysis of quality imposes a much higher hurdle. I will discuss this problem as well in a later section of the paper.

Prison Privatization and Recidivism

Criminal justice scholars who articulate the goals of prison as punishment draw distinctions among general deterrence, specific deterrence, rehabilitation, just desserts, and restorative justice. General deterrence theory suggests that punishment should prevent other citizens from committing a crime. Specific deterrence is the idea that the person who is punished should be deterred from committing another crime. Rehabilitation advocates argue that punishment should be combined with training and other protective interventions to reduce the likelihood the person punished will reoffend. Just desserts advocates argue that the primary (some advocates imply the only goal) goal of punishment is to promote fair and equitable justice through proportionate punishment. Finally, those who advance restorative justice as a goal of criminal justice argue that by having the offender participate in repairing or restoring the victim of a crime both the offender and the victim will benefit. Clearly the goals of rehabilitation and specific deterrence suggest that some combination of punishment and program services ought to reduce the probability of recidivism. Many prison systems adopt this as a goal of their mission (Gaes et al., 2004).

In a series of studies involving inmates released from public and private prisons in Florida (Bales, Bedard, Quinn, Ensley, and Holley, 2005; Farabee and Knight 2002; Lanza-Kaduce, Parker, and Thomas, 1999, 2000), successive analyses, starting with the studies by Lanza-Kaduce et al., followed by Farabee and Knight, and ending with Bales et al., used larger samples, better methods, and more objective matching criteria. While the earlier studies found privatization was associated with lower recidivism rates, the last of this series of studies conducted by Bales et al., found no difference in the recidivism rates between inmates primarily housed in privately operated as opposed to publicly operated facilities. The Bales et al analysis was the most rigorous of all of these studies.

A recent study by Spivak and Sharp (2008) was conducted in Oklahoma. It compared recidivism rates for inmates housed primarily in the state's privately operated medium security prisons versus similar publicly operated medium security prisons. In most prison systems, and this is true of Florida and Oklahoma, inmates do not spend time exclusively in public as opposed to private facilities. Because prison transfers are endemic to correctional systems, it is almost impossible to isolate offenders who have spent their entire incarceration in one type of facility. Bales et al., and Spivak and Sharp used many different types of definition of exposure to a privately managed prison experience to try to capture the impact of privatization on recidivism. Essentially, the authors of these two studies were trying to measure the proportion of time inmates spent either in a publicly or privately managed prison. For example, in the Spivak and Sharp paper they used a large number of exposure definitions and conducted separate analysis on each one of them. Many of these measures were indicator variables. These variables were coded 1 if there was some kind of exposure to medium security, private prison management, and 0 otherwise.

The Spivak and Sharp definitions of privatization exposure included whether an inmate was released from a privately operated or publicly operated prison; whether an inmate was released from a private facility, and served at least 6 months in the private facility and less than 6 months in a public facility; whether an inmate served at least 25 percent of their time in a private prison, or at least 6 months in a private facility and no time served in a public facility; whether an inmate served at least 50 percent of their time in a private facility and less than 25 percent of time in a public facility, or at least 12 months in a private facility and less than 6 months in a public facility; whether an inmate served at least 75 percent of their time in a private facility, or at least 12 months in a private facility and less than 3 months in a public facility; and whether an inmate spent any time in a private facility and no time in a public facility. There were also two definitions of continuous measures of exposure to privatized management. For anyone released during the period of the study, the proportion of time served in a private medium security prison was calculated along with the proportion of time spent in a public medium security prison. Some of these inmates could have 0 percent exposure time to either public or private medium security prisons. Finally, they calculated the proportion of time served in a privately managed medium

security prison and the proportion of time served in a publicly managed medium security prison *only for those inmates who had spent at least some time in one of these prisons.*

Spivak and Sharp presented the results of these eight different definitions of exposure to privately managed prisons using a host of control variables that have been found to affect recidivism. In a sense, Spivak and Sharp were trying as best they could to mimic an experimental design where inmates were randomly assigned to privately and publicly operated prisons. Their results indicated that recidivism rates were higher for almost every definition of privately managed exposure. Two of the definitions of privatization exposure had no impact on recidivism. These were the definitions associated with whether the inmates were released from a private or public facility. All other definitions showed a higher hazard of recidivism based on a greater exposure to privately versus publicly managed prisons. Inmates who were exposed to privately managed prisons in Oklahoma were anywhere from 12.7 percent to 16.7 percent more likely to recidivate, depending on the indicator variable definitions of exposure. Using the continuous definitions, for each unit increase in the percentage of time spent in a privately operated medium security prison, the likelihood of recidivating increased by about 12 to 15 percent depending on which continuous definition of privatization exposure was used.

Spivak and Sharp recognize the major limitation of their study. Absent randomization or an even stronger quasi-experimental design, recidivism studies to date have relied on regression procedures to control for differences among inmates assigned to public and private facilities. Furthermore, as Spivak and Sharp point out, there may be very subtle selection mechanisms that cause the results. One of the two authors of this paper had been a case manager in Oklahoma and had observed, indeed had participated in the practice of transferring the most recalcitrant inmates to the private sector. Unless sufficient controls can capture the difference in behavioral dispositions of these inmates, the Oklahoma results may represent the possibility that the inmates that are the most likely to be behavioral problems are transferred to the private sector.

The safest conclusion to make at this point is that there is no winner in the public versus private management contest using recidivism as the outcome of choice. Until there is a design that randomly assigns inmates to either a publicly or privately operated prison, or until there is a strong quasi-experimental design that produces meaningful counterfactual analysis (Morgan and

Winship, 2007; Rhodes, 2009), we should be very cautious in drawing conclusions about the benefits of one sector over the other.

Relationship Between the State Level of Prison Privatization and State's Growth Rate in Per Diem Expenses for Publicly Held Prisoners

As this heading indicates, Blumstein, Cohen, and Seth used data from different sources to analyze the relationship between whether a state used privately operated prisons and the growth in the state expenditures for publicly held prisoners. Blumstein et al., argued that competition between the public and private sector for the same public dollars should introduce cost savings. They also claim that state correctional agencies will learn to lower their costs by observing how privately managed prisons within their state use cost cutting measures presumably because they are profit driven and state agencies are not. They refer to this as an indirect cost reduction mechanism and distinguish it from a direct cost savings that they assume will occur when a private firm takes over management of a previously publicly managed facility. They cite Segal and Moore's work stating that "In general, empirical evidence supports the proposition that privatization brings about direct cost savings (Blumstein et al., 2007, p. 4)." They also cite Volokh's work indicating that the private sector's quality of operations is on par with the public sector. Even though they exercise selective citation, in a footnote, they do mention that Praat and Maahs have challenged the strength of the cost evidence, but fail to cite Perrone and Pratt. Lundahl et. al., was published after Segal, Cohen, and Seth's paper.

The emphasis of the Blumstein, Cohen and Seth article, however is "...whether or not the existence of privately-managed prisons in a state provides competitive or other pressures that help control costs in the public sector (Blumstein, 2007, P. 6)." Despite their bias, Blumstein et al's hypothesis clearly deserves a strong empirical test. These researchers creatively cobble together data on state expenditures for public and private prison operating costs from 1996

through 2004. For most of their analyses, they have about 400 data points representing states over fiscal years. The dependent variable in their analyses is the annual growth in public prison operating expenditures over time. By using growth rates in the public sector, they avoid a messy set of issues that they would have to address were they to use the actual per diem costs for privately and publicly operated facilities. Any analysis that uses per diem costs would have to control for facility custody level, age, scale (capacity), overhead rate, and a host of other important variables. Blumstein, Cohen, and Seth analyze the growth rates using random effects panel models. These models assume that if there are variables that are omitted from the regression equation that these factors are uncorrelated with the regressors in the model. This is a very strong assumption, but not atypical of economic analyses.

Blumstein et. al., evaluate the use of private prisons by using an indicator of whether the state used private prisons in the same year, one year prior to the growth in public expenditures, or two years prior to the prison public expenditure growth. They reasoned that the public sector may not realize savings until several years after privatization. As control variables they used the initial per diem level costs, growth in non-corrections related expenditures, an indicator of whether the state's prisons were over capacity, the proportion of a state's workers that were in public unions, whether there were court orders on any prison within the state, the region of the country in which the state was located, and the year of the data point. They found a marginal effect ($p < .087$) for the two-year lag indicating that a state that had adopted prison privatization did not experience a reduction in growth of public expenditures until two years after the initial endeavor. Since these analysts argue for a competition and learning mechanism, they should also have included the scale of privatization in their models. These data were readily available and could be easily constructed using the proportion of prisoners in a state in given years who were housed in privately operated facilities. This would have been a stronger test of their hypothesis.

Blumstein et. al., also recognize that they may have had a selection bias problem. States that privatize may be states that are most likely to economize regardless of whether or not they used private prisons. The two step propensity score analysis Blumstein et. al., performed to address this issue is not described very well in their paper. They discuss the estimation of the propensity to participate in privatization using only a few predictor variables, but not how they use the results of that analysis to re-analyze the growth in expenditures. They report that they

find essentially the same results when controlling for selection bias as they did without those controls. This could either mean that there was no selection mechanism or that Blumstein failed to adequately model and control for the selection process. The control for selection artifacts is the weakest part of their analysis. While there is no statistical rule that assures the analyst has developed a selection equation that will eliminate selection artifacts, it is not uncommon for studies to use 20, 40, 50, or more variables that “balance” the treatment and control groups. It is unlikely that there is a random mechanism which “decides” which states will privatize some of its correctional operations. Blumstein, Cohen, and Seth reasoned that states most likely to privatize would be those who were undergoing fiscal pressures and needed to contain costs, were experiencing prison expansion, and would not get resistance from public labor unions. They used variables in their selection equation to represent these three conceptual drivers, as well as variables indicating the region of the country and the budget year of the growth in prison operating expenses. Scholars have suggested other factors that contribute to the likelihood that states will choose prison privatization. The private companies may have a lot more success in lobbying legislatures in certain states, especially where they can establish ties to key leaders in the legislative bodies. The public sector within the state may have failed in its obligation to manage its prison operations. Here I am referring more to its operations than its fiscal health. The only alternative available to the state may be to use a private contractor. Even fiscally healthy states may have governors who want to control prison costs by having the public sector compete for the operation of some of the state’s prison beds. The policy issue that hinges on this potential selection artifact is whether states who were/are motivated to contain costs could do so without resorting to privatization of some of its beds. If a state can reign in prison costs without relying on prison privatization, then what we observe in the Blumstein et. al., analysis is simply states exercising fiscal discipline, a result they may have achieved without prison privatization.

Cost Comparison Methods

The analysis of the cost comparison between public and private prison operations made by Perrone and Pratt underscores the inherent complexity of this process. When the government decides to “make or buy” a service, there must be a proper accounting. The goal should be to

provide a level playing field on which the private sector and government are properly compared. Julianne Nelson (2002) is an economist who has spent her career doing economic analysis of public policy specializing in prison privatization. She has worked out a set of principles that should be used by governments when they are evaluating privatization proposals, or assessing how well a private contractor has performed. These principles not only can assist governments in conducting a proper cost comparison, they can also be used by reviewers of the cost comparison literature to rate the quality of studies that have already been conducted. I will briefly review these principles.

Within Each Policy Scenario Identify Only Those Expenditures That Are Borne by the Taxpayers

Some analysts have taken pains to examine the cost of each service that prisons provide. For example, they try to list the medical expenses, money spent on food and clothing, the cost of transportation, and sundry other services and programs provided by each sector. The point Nelson is making is that it really doesn't matter how the contractor spends money as long as there is an acceptable level of service provided. This turns out to be a contracting issue as well. If the government sets performance criteria for a service, then the private or public sector can seek the most efficient way to provide that service, rather than be tied to a set of criteria that may limit the ability to innovate.

Work to Capture All Expenditures that Do Change – The Concept of Avoidable Costs

When money for a service is paid to a contractor, the cost is *avoided* by the government. *Unavoidable* costs are those that the government must assume for the service provided by the contractor. If the private sector operates a prison, but the Central Office takes responsibility for the training of all new hires, then training is an unavoidable cost to the government. To compare a public sector prison to a private sector prison, the unavoidable cost of training new hires would have to be subtracted from the government cost structure since it is not an avoided cost assumed by the contractor. This issue is typically most problematic when analysts try to compare

overhead costs. It is tempting to assume that most overhead costs will be assumed by the contractor. I used training as an example, because this is an essential core component for which governments use specialized facilities, paid for out of Central Office funds. These costs are actually often avoided when a private contractor operates a facility because the private contractor bears the responsibility and the cost for training its new hires. Thus, typically this cost is avoided by the government. This problem of overhead costing is so pervasive and difficult, I show an example later on in this section of the paper where I indicate how this calculation alone can tip the balance (often erroneously) in favor of one sector over the other.

Another difficulty is that within the government system of finance, avoidable costs are not always assigned to institutions where the costs are incurred. For example employer contributions to retirement are direct costs of prison operations and thus avoidable; however, they are often funded from the Central Office or even a state level budget. Medical costs in many state prison systems are borne by the public health department and should be considered a direct cost of a prison operation; however, they are often difficult to pin down. Other such ethereal costs include unemployment insurance for prison staff and liability insurance.

Insure that Characteristics of Inmate Populations and Facilities Associated with Different Cost Structures Are Used to Adjust the Level of Avoidable Costs

Perrone and Pratt consider whether cost comparison studies have controlled for institution capacity (economy of scale adjustment), custody level, and facility age. There are other inmate characteristics, such as the age distribution and level of health, that are also associated with avoidable costs. Younger inmates and sicker inmates typically cost more. Furthermore, some prison designs are much more efficient than others, reducing the level and cost of staffing the facility. It would be unfair to compare privately and publicly operated prison if one sector had a design advantage.

Insure the Level of Services and Programs Provided Is Equivalent

Sometimes prisons specialize in inmate programs such as education or vocational training. Indeed, this was one of the purposes of prison privatization in Florida. It was anticipated that increases in program services might promote the goals of rehabilitation. Prison programs add additional costs and must be included in the avoidable cost analysis. Some states do not allow private contractors to perform specific services such as sentence computation and disciplinary proceedings. If these are borne by the government, then they become unavoidable costs. To make a fair comparison they are either added to the cost of the private contractor or subtracted from the public provider.

Other Possible Adjustments

If institutions that are being compared are in locations with different costs of living, then adjustment must be made to the calculations. Other complications arise from the appropriate treatment of property, sales, or income taxes paid by private contractors, as well as profits from inmate phone calls and commissary accounts. Taxes to the state or local government paid by the contractor lower the cost of the privately operated facility, since part of the government expense is returned to the taxpayer. Furthermore, analysts should not forget to include the cost of contract monitoring as part of the cost of prison privatization.

Overhead Cost Calculations

To show the amount of detail an analyst needs to decompose overhead costs into its avoidable and unavoidable components, I present a table below taken from *Measuring Prison Performance* (Gaes, Camp, Nelson and Saylor, 2004) that was prepared in FY 2000 by the Oklahoma State Department of Corrections and was available on their web site. For each Oklahoma Central Office function listed in the left most column, the cost of that operation also appears. Adjacent to the cost are two columns signifying who assumes the cost. While the costing terminology is arcane, anytime a “Yes” appears in the column “Allocated to Private Operations” this means that the state must still pay for that service and it is therefore an unavoidable cost. For example, all information technology costs of \$2,736,643 were borne by the

state in FY 2000. The last row of the table shows the bottom line. Of the entire Central Office overhead costs of \$25,760,153, about 62 percent, or \$16,098,778 were unavoidable.

Insert Table 2. about here

I use Oklahoma because it is a state with a large percentage of its inmates housed in privately operated facilities. The larger the scale of privatization, one would expect the larger the amount of avoidable costs – more costs should be assumed by the contractor. In the Oklahoma example, 38 percent of overhead costs were avoidable. Unless the effort is made to break down these overhead costs into avoidable and unavoidable, large errors in the cost comparisons between private and public sector comparisons can occur. Overhead costs can typically be from 8 to 20 percent of a prison system's cost. If we assume a system has a 12 percent overhead rate, it would be unfair to assume that all of those indirect costs would be avoided through prison privatization. If a state has a privatization effort similar to Oklahoma's then it will still have to assume 62 percent of the overhead for its private facilities. Therefore to make an apples-to-apples comparison, the comparison would have to involve a 12 percent overhead for publicly operated facilities. The overhead rate for the privately operated facilities would be 62 percent of 12 percent or 7.4 percent. Alternatively an analyst could assign the 38 percent savings to the public sector and no overhead costs to the private sector. One typically finds that this issue is either improperly handled in the literature or it is ignored completely. What is the consequence of such an error? If an analyst simply assumed that the 12 percent overhead rate were avoided, then in the Oklahoma case *they would underestimate the cost of privatization by 7.4 percent of the total cost.*

Two Cost Comparison Studies in Search of the Same Results

There are a few occasions in the cost literature on prison privatization in which there have been competing estimates of public and private operational expenditures. This happened in Florida when there were competing cost estimates by the Florida Department of Corrections, the private contractor (Corrections Corporation of America) and the Office of Program Policy Analysis and Government Accountability, the arm of the state legislature which is mandated by state law to conduct the analysis. All three produced separate and contradictory results regarding the per capita costs of public and private facilities in the state. The Florida Department of Corrections showed that the private contractors were more expensive than the public operators. The private contractor showed that the privately operated facilities were less costly than the public counterpart. OPPAGGA showed that the costs of the publicly and privately operated prisons were about the same. As I have already stated, the devil is in the details. C. Elaine Cummins (2001) has documented a similar tangle of competing interests with different cost analyses in Texas.

Even when analysts have no incentive to portray one sector as superior to the other, you can find different conclusions. As part of the Bureau of Prisons (BOP) mandate to conduct a demonstration project in prison privatization, the agency provided the National Institute of Justice money to conduct an evaluation. Abt Associates, Inc. won the competition and the BOP hired Julianne Nelson, who was working for the Center for Naval Analysis at the end of the study to conduct an independent cost analysis. I refer to the cost results as Abt and CNA findings. The final reports examine both cost and quality dimensions (Camp and Daggett, 2005; McDonald and Carlson, 2005; Nelson, 2005). In this section, I focus on the discrepancy in the cost analysis results. The following table comes from a brief research article I wrote for the NIJ Journal comparing the ABT and CNA results (Gaes, 2008). In the table below, the privately operated facility is Taft. The other three facilities were run by the Federal Bureau of Prisons. All four of these facilities were funded and owned by the government. They were built at about the same time using the same architectural footprint, and housing inmates of similar custody levels.

Insert table 3 about here

Clearly, the Abt analysis shows a substantial increase in per diem costs among the publicly operated facilities across all four fiscal years. The CNA analysis presents a much different picture. The costs are much more similar. In FY 2002, the average cost of the publicly operated facilities was 2.2 percent higher than the privately operated facility although two of the public facilities were \$.25 per day higher than Taft. The CNA analysis also contained a hypothetical estimate of the per diem cost of Taft assuming that the BOP had operated that facility using the same staffing design as it did in the public facilities. In FY 2002, the cost would have been \$37.55, over a dollar *less* than it cost the private firm to operate Taft. Why are these costs calculations so different?

The primary reason why the Abt and CNA analyses were different rests on an interpretation of overhead costs, and on the issue of how to accommodate the different population sizes of the inmate population each of the facilities had to manage. Taft had a higher inmate population throughout the study period. Thus, the private provider benefited from economies of scale that reduced their average costs. The CNA analysis made adjustments to the expenditures to account for these economies of scale. The Abt report also fixed the overhead rate at 12 percent, while the CNA report presented an analysis that determined how much of the BOP overhead could be avoided because the private provider had assumed the functions of the central and regional office operated by the BOP. This is equivalent to the approach I showed previously that Oklahoma used to pinpoint the level of overhead that could be avoided through privatization. Over a five year period, 1998 to 2002, the average amount of avoided overhead costs was 35 percent of the total overhead costs. By making these adjustments, what appeared to be a 21 percent savings based on the Abt analysis was reduced, to at most, a 3 percent savings per year and possibly even a slight loss had not the BOP been mandated by Congress to privatize the Taft facility. While the Abt study has appeared in some reviews, the CNA study has not been cited. The public policy question is, *“How many decisions to privatize in other jurisdictions rely on equally, or even more fragile, foundations?”*

MacDonaldization of Prison Labor

Labor is by far the largest component of a prison's operational costs. It is often 60 to 70 percent of the costs of the annual operating budget. If the private sector is to achieve savings and produce a profit, it is most likely that it will come at the expense of the employee. In many cases, private firms pay the same wage but have much lower benefits. Previously, we have drawn upon the organizational sociology literature to describe a theory of job routinization that could explain how private firms try to reorganize prison tasks to make them simpler. This has the added benefit of making the prison labor force more fungible (Gaes et al., 2004, pp 111-115), and was based on work by Ritzer (1993, 1998). In two books he discussed the MacDonalidization of labor that simplified tasks, reduced training costs, and allowed companies to hire less skilled workers. Think of MacDonalids restaurants with cash registers that use symbols of the Big Mac and French fries, hamburgers that are already cut to specifications, pre-defined bins for each type of sandwich, and sundry other simplifications that make the routine simple and efficient. While it is difficult to see how many of the more subtle tasks involved in operating a prison can be reduced to a very fundamental set of routines, the MacDonalidization hypothesis sets a minimal reference point against which the more skilled practices in prison must be accomplished. Compare the correctional officer's routine of checking cells for contraband, monitoring inmate movement, and insuring doors are locked against the more subtle and perhaps more important skills of handling inmate grievances, disciplining inmates, as well as helping them through family and other personal crises. It is easy to see how the former can be re-engineered for low skilled, lower paid workers. It is more difficult to see how the latter skills can be simplified using a cookbook approach.

If there is one aspect of prison privatization that needs more research, it is in the area of privatization and prison employees. What is the impact of lower labor costs on staff turnover or staff performance? How do private companies develop training for workers with fewer skills? Do private companies, in fact, hire lower skilled workers? Have private companies re-engineered the prison employee's job? Scott Camp and I did some preliminary research on this issue (Camp and Gaes, 2000). When we conducted this research in 1999, we found that private operators had much larger staff turnover rates than their public sector counterparts. Some, but not all, of this finding was explained by the fact that many of the private prisons we surveyed were going through their startup phase—typically referred to as “prison activation.” With regard to prison

activation, McDonald et. al. (1998) found that when the privately operated federal prison in Taft, California started their operation, only 10 percent of the workforce had correctional experience. A typical federal prison activates with 50 percent of their workforce having correctional experience. Does that practice of activating prisons using staff new to corrections occur in states that use private prisons? Is it a common practice? Activating an institution having a large proportion of employees with previous experience was a BOP policy intended to insure that new prisons would not experience problems with a naïve workforce. Are there startup problems in privately operated prisons because they use a smaller percentage of staff with prior prison experience?

Every correctional administrator will say that the key to their success or failure is the quality of their labor force. I suspect that most of the top echelons of private prison management still come from retired public sector workers. Yet, little is known about the extent to which the wardens or other top level management running privately operated firms are retired or former employees of the state. One could call this a hidden cost of privatization. The years of training and experience the state had to sink into the development of the workforce later employed by private companies are an indirect, although small cost of privatization. More importantly, since the private sector uses many former public sector employees to guide its management and administration, have these former public employees found new ways to engineer prison operations? Or is there evidence that private prison quality suffers from lower paid workers?

Prison Privatization, Market Forces, and “Residual Rights of Control”

There are many advocates of prison privatization who argue that market forces will drive down the costs of prisons by converting public to private beds (Volkh, 2002). However, unless there is liberalization of the market in which there is open competition, costs will not be reduced and quality will not necessarily improve (Starr, 1987). There are many examples of converting public functions to private enterprise resulting in cost overruns, poor performance, and even complete and abysmal failures (Starr, 1987). Many economists argue that there are much stronger incentives for private owners to innovate to reduce costs and increase their profits. Government employees cannot benefit directly from productivity gains. However, Hart, Shleifer,

and Vishny (1997) propose a mechanism that can lead to inferior private performance. The key to understanding this mechanism is to compare the explicit performance criteria in a contract to the complexity of the product. If a vendor has been contracted to produce widgets at a certain level of quality, then the government purchaser can test the quality. When a contract covers a complex process such as the operation of a prison, there may be many aspects of the service that may not be explicitly covered as a performance expectation. Therefore, the contractor may lower costs maintaining “residual rights of control” without the government fully knowing that some of the services are not being produced.

One of the comparisons that come to mind is school achievement. There are many jurisdictions which have allowed open competition between public and private schools. However, I would argue it is quite a bit easier to measure school achievement accounting for differences in the children’s backgrounds than to measure the productivity levels of prison services. My colleagues and I have argued that recidivism ought to be the ultimate benchmark used to measure prison performance (Gaes, Camp, Nelson, and Saylor, 2004); however, jurisdictions that buy prison services are most concerned about internal performance measures such as order, health, case management, program services, and safety. To insure that the private sector cannot exercise residual rights of control, governments contracting for prison services must include explicit performance criteria for all of the services that are delivered in a prison setting. In addition to the contract, governments must insure quality services through continuous monitoring and oversight. The same mechanism that drives innovation in the private sector, incentives to make a profit, can undermine prison quality if the contractor can exercise residual rights of control.

Race to the Bottom

I have previously argued (Gaes, 2005) that one of the possible outcomes in jurisdictions which allow private contractors to exercise residual rights of control is that this puts the government competitors at an unfair disadvantage. In my 2005 article, I stated the problem this way.

Public servants negotiate a contract with a vendor and specify at some level what they expect the private provider to do. If what they require of vendors is somewhat vague, or if vendors can easily manipulate the proof of the outcomes, then private providers can exercise a great deal of discretion in how they deliver their services. Vendors that are inefficient or have underbid for a contract can still make a profit by reducing services. Unless the government has specific performance standards and monitors the contractor's performance, service can quickly deteriorate. Public employees in correctional systems who are in competition with the private providers, in an effort to meet the lower per diem costs vendors are offering, must cut staff and/or programs to be competitive. This competition produces the perverse effect of lowering service delivery throughout the system—a downward spiral. To my knowledge, no one has investigated this possibility. (Gaes, 2005, p. 86-87)

Instead of productivity gains, jurisdictions may be in a race to the bottom. The perverse nature of this argument is that it is still based on the profit motive, the same motive that proponents of privatization argue is the compelling feature of prison privatization. For the profit motive to improve prison services, you need two compelling features of a free marketplace that may be missing in some jurisdictions – market liberalization and objective performance criteria.

Market liberalization is an open competition that pits private and public providers against each other. It is the antithesis of an economic environment rife with lobbying and cronyism. As in England, governments should be allowed to compete against private companies. Contracts for prison service provision are re-competed with both the government and private sector having an opportunity to win or lose the next time around.

In a market where consumers can buy competing products, they use objective performance criteria to choose one product or service over another. Analogously, unless jurisdictions make an effort to define service levels and hold private and public service providers to the same standards, they will defeat the goals of privatization. Government purchasers stand in as the consumers of the product. This kind of indirect consumerism depends on clearly articulated performance metrics and means of accountability. I cover the performance metrics in the following section.

Assessing Prison Quality

The goal of *Measuring Prison Performance: Government Privatization and Accountability* (Gaes, Camp, Nelson, and Saylor, 2004) was to articulate a method of prison performance measurement. We tried to show how each prison jurisdiction could start with its mission and objectives and develop indicia of performance that would allow prison administrators, external auditors, and oversight committees to monitor the quality of prison operations as an ongoing activity. In the book, we showed how improvements in computer systems, and statistical analysis of data could lead to an unbiased, objective assessment of prison performance over time. These tools could be used to assess public and private prisons either against each other, or against themselves over time. Almost every prison system uses audit tools to inspect their prisons. We showed how easy it would be, with slight modifications, to transpose audits into meaningful prison performance metrics.

I expect as prison systems develop more sophisticated databases, the development of performance metrics will become easier. This rationalization of the process can be incorporated into contracts with private providers making explicit the government's expectations, and reducing the contractor's exercise of residual rights of control. Prior reviews of the research literature, both meta-analyses and what the field calls vote counting methods of summarizing the literature, have suffered from the lack of methodological sophistication in the primary studies. This is true of cost and quality analyses. To make a fair comparison, the institutions that are to be compared must be equated on any dimension that might differ between the two that would affect performance that is not linked to the privatization effort itself. The steps to conduct these kinds of analysis are now an integral part of the prison and program evaluation literature. For each performance measure, the analyst develops a model that includes characteristics of prison and inmates that might determine differences among the prisons in the target outcome that would lead to a spurious conclusion about differences among prisons. Using statistical techniques that have been developed in recent years (see especially Raudenbush and Bryk, 2002), the analyst compares the expected level of the outcome versus the actual level of the outcome. Then the analyst can rank order institutions with higher or lower than expected outcomes depending on the particular performance measure. For example, if an institution has more misconduct than expected given the statistical model, this prison would be ranked lower than comparable prisons with lower than expected misconduct outcomes. Privately and publicly operated prisons can then

be compared based on their relative rankings on these performance measures. We show examples of this type of analysis in *Measuring Prison Performance*. This allows for a level playing field when making comparisons among prisons based on a host of variables that could be different between the two prison sectors – some variables favoring one sector over the other, other variables having the opposite effect.

All of the examples in the book come from published studies. One of these examples is based on Camp, Gaes, Klein-Saffran, Daggett, & Saylor (2002) who showed how to use inmate surveys in assessing the quality of prison operations at Bureau of Prisons (BOP) facilities. The surveys included measures of inmate security, safety, threats from gangs, sanitation, and food service quality. On the gang and the safety/security measures, the private facility performed at an average level in comparison to the BOP prisons. However, the private facility performed poorly on inmates' perceptions of sanitation in both the dining hall and housing units. There were also more serious problems involving food service measures.

In another paper, Camp, Gaes, Langan, & Saylor (2003) showed how to use these methods to compare public and private prisons on officially recorded indicators of inmate misconduct. In this study the privately operated facility had higher than expected levels of total misconduct than the public facilities to which it was compared. It also showed that the private facility *and* one of the three comparison public facilities had higher rates of violent misconduct than the two other public facilities. This analysis also placed these results in the context of all federal low security prisons. At the time of this study, almost all BOP prison privatization efforts were focused on low security prisons.

Camp, Gaes, & Saylor (2002) used inmate surveys and found that BOP institutions performed better on measures of organizational commitment and fire safety in the housing units; however the private prison had employees with higher levels of commitment to the institution. Measures of institutional operations indicated that the privately operated and publicly operated prisons were equivalent.

While these three studies are among the most rigorous ever conducted comparing public and private prisons, none has appeared in any of the reviews or meta-analyses published to date. Whether the outcome is per diem cost, level of prison order, or quality of health care, systems with well designed performance monitoring tools will be able to compare and contrast their

institutions with less equivocation. In the language of meta-analysis, this will produce effect sizes with greater integrity (internal validity). Comparisons across jurisdictions will still be difficult because definitions of institutional characteristics and outcomes will vary by jurisdiction. Nevertheless, the more precision each jurisdiction uses to make its within-state or federal comparison, the more precise the cross jurisdiction comparisons will become.

Performance measurement does not insure accountability unless some independent body monitors the metrics and investigates issues. Richard Harding (1997, 2001) has been one of the clearest thinkers on this issue and has articulated different mechanisms and oversight structures that can hold both the public and private sectors accountable. One might expect governments that run poor quality prisons may not be the best candidates for monitoring and holding accountable private companies that serve as public proxies. Harding has advocated public-private competitions, government monitors that are independent of the public agency administering the prison system, and periodic re-competition so that both sectors must maintain satisfactory quality. However, there has been little or no empirical research on accountability structures.

Pros and Cons of Prison Privatization

Absent empirical findings, proponents and opponents of prison privatization have carried on a spirited debate about the impact on cost and quality. McDonald et al. (2003) summarized many of these arguments into a set of propositions. In addition to their arguments, I add a fair number from the paper by Volokh (2002). The arguments favoring privatization are:

- Private firms are not subject to rule-ridden procurement procedures, although they often participate in cumbersome procurement procedures when they bid on contracts.
- Without organized labor, private firms manage labor better.
- Private firms bear risk unlike public management thus increasing cost efficiency.
- Competition among private firms lowers costs.
- Incentives for government managed institutions are structured so as to increase rather than conserve money.

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- Government managers neither benefit nor suffer from their financial decisions reducing the incentives to save money.
 - Civil service regulations limit managers' control of government labor.
 - Private prisons are more accountable to governments.
 - Governments may be less deferential to its oversight of private rather than public prisons.
 - Private prisons are responsive to market pressures to win new contracts making them more accountable.
 - Private companies save money at the operation stage. The main savings come from reducing labor costs, both through lower wages and through more efficient use of labor.
 - Because they are not bound by civil service rules in managing their personnel, private prisons use roughly one-third the administrative personnel of government prisons, and use incentives to reduce sick time and consequent overtime expenditures.
 - Private firms are free from many bureaucratic purchasing rules and can often buy supplies at lower cost than the government.
 - The traditional hostility of juries toward corporate defendants, private prison guards' inability to claim qualified immunity in 1983 civil rights suits, and courts' unwillingness to defer to the judgment of corporations all increase private prisons legal accountability relative to public prisons. The presence of this additional judicial check should in turn increase private prison quality.
 - Monitors of private prisons (even if co-opted to some degree) are likely to be more independent than monitors of government-run prisons.
 - Private prisons are more accountable because their contract can be terminated. A private prison may have its contract rescinded. The government cannot take over its own prison except by firing civil servants, and it cannot have a private firm take it over except by opening a new bidding process, which is more difficult than finding someone to take over an existing contract.
 - Private prisons are more accountable because of financial concerns. A private corporation is punished financially for bad news, and possibly for mismanagement that may impose costs in the future.

- Private companies are more concerned with keeping their stock prices high over the long term by insisting on sound management. Guards and wardens can be encouraged to act responsibly through stock ownership in the company.

Arguments against privatization are:

- Government contracts actually increase expenditures because of hidden contract costs.
- Rule-ridden procurement procedures insure a fair and open competition for goods and services.
- Private firms cut corners to make a profit resulting in inexperienced staff or poor quality goods and services.
- Corruption can increase costs and lower quality.
- Private firms abandon their contracts if they cannot make a profit, leaving the government at risk.
- Private firms are subject to strikes.
- The initial bids of firms are “lowball” offers and private firms either raise prices later, once they have a foothold in the market, or they will fail to deliver quality services because the original negotiated price was too low.
- Private firms may lobby for preferential treatment.
- Private firms may influence substantive criminal justice legislation by supporting tough-on-crime candidates and advocating tougher sentencing.
- Corrupt politicians may extract money from a contractor influencing a contract decision.
- Fear of stock price drops may make private prisons conceal their problems.

Almost all of these arguments contrast a benevolent to a malevolent motive brought on by the incentive to make money. Private firms driven by the incentive to make money will lower costs and increase performance. This is a loose interpretation of Adam Smith’s “invisible hand”; self-interest compels actors to beneficial behavior. However, critics of this argument also point out that this economic law only works when there is a liberal market with real competition. If firms can make a profit by providing fewer services it is also in their self-interest to do so.

Because our system of imprisonment is not a market in the conventional sense where the inmate qua consumer can decide among different public and private prison service options, governments must promote quality. To do so they must articulate the goals of imprisonment, formulate these as clear performance objectives, and put in place performance metrics to hold all prison service providers accountable. Absent these mechanics of accountability, governments will produce poorly performing prisons with or without privatization.

Areas of Future Prison Privatization Research

There are at least three key areas of future prison privatization research. The first is a systematic analysis of how private and public providers hire, train, and retain their correctional staff. The study of correctional labor should measure whether the two sectors achieve comparable results. Furthermore, how do the two sectors structure correctional activities that might promote efficiency while maintaining quality?

There has never been a systematic analysis of accountability structures across prison systems. Are there models as Harding suggests that would promote better prisoner welfare? I do know that states implement oversight differently especially in the way in which governments may or may not use autonomous government functionaries. Some use legislative oversight committees. Others use executive branch personnel such as ombudsmen or the inspector general's office. Is there a role for private firms in oversight? Since this strikes at the heart of prison oversight, it would seem to me this would be an important avenue of research for any correctional system.

Lastly, while Gaes, Camp, Nelson, and Saylor (2004) have provided a template for prison performance measurement, it could be a goal to advance this activity with research in some key states. This would be partly an evaluation and partly a demonstration project. There are many states with sophisticated databases that could be used to develop performance metrics. However, many of these states lack the sophistication to develop statistical models that can be used to compare prisons on the performance measures. There are no states, to my knowledge that use the results of their prison program audits as part of a broader prison evaluation framework. Many audit tools would have to be modified so their results could be incorporated into the prison

monitoring process. For example, almost all states audit and review institutional security procedures. However, the audit reports often point out material weaknesses with summary statements about their findings. These could easily be translated into rating forms, and then incorporated into a model that compares prisons within their jurisdiction. Even in states which have relatively few prisons, performance measures generated over time would show how prison performance is improving or deteriorating.

Implications for State Budgets and Policy Choices

In fiscal year 2000, states spent 3.8 percent of their expenditures on corrections. In fiscal year 2008, it was 3.5 percent. This amounted to \$52 billion (National Association of State Budget Officers, 2009). Corrections expenditures include capital costs (\$1.7 billion in FY 2008) and may include spending on juvenile corrections and probation and parole. Nonetheless, prison operations are the most significant cost in correctional expenditures. To save costs in FY 2009, the National Association of State Budget Officers report indicates that states closed prisons, released prisoners early, and furloughed employees. If policy makers take the Blumstein et al. results at face value, they may believe they can achieve, on average, a \$13 to \$15 million reduction in expenditures on their public prisons by privatizing some facilities. However, at the time of their report, there were only 13 states with no private prisons in their jurisdictions. Since Blumstein et al. did not measure how much could be saved by the scale of privatization, their research provides no policy guidance on the marginal savings (returns) by increasing privatization in states that already have private prisons.

Because of the ambiguity in the quality of private prison operations, states that choose to use privatization should also insure they have a systematic and sound mechanism for monitoring prison performance. However, states can also achieve large savings by lowering the amount of time inmates serve, and by using alternative sanctions to prison. For example, a back of the envelope calculation shows that reducing prison time served by 5 percent in a state that has, on average, lengths of stay of 2.5 years would lower the average daily population in an “average” state of 28,180 inmates per day by 1,409 inmates. This reduction might be enough to actually close a prison. Even if there were only a marginal savings of about 30 percent of the 2004 per

diem cited by Blumstein et al of \$87.05, this would be equivalent to the same savings that Blumstein et al claim has been made through privatization in an “average” state. My goal is to simply point out that prison savings can be achieved through alternate policies to prison privatization.

Summary

The research literature on prison privatization does not show that one sector is more efficient than the other. This may be because any savings to the taxpayer that the private sector achieves through lower wages and benefits to its employees is diminished by the profits it reaps from the contract.

Although the research on quality is also one where the two sectors seem to have equal performance, I am less convinced by this set of results because of the lack of quality performance assessment and the weak methodology that has been used to make comparisons. I am optimistic that governments can make legitimate cost comparisons. Julianne Nelson and others have set out a proper framework for conducting those analyses. I am less sanguine in the short term that governments have the ability to make valid performance comparisons. I have set out the conditions for this kind of analysis; however, most jurisdictions do not devote the resources to this endeavor.

The research by Blumstein, Cohen, and Seth (2007) provides evidence that states that used private prisons lowered the rate of growth in expenditures for public prisons. This research is not conclusive as to whether the mechanism was private-public competition or whether these states simply squeezed the public sector; nor does it address what happened to prison performance in those states.

Because of the pluralistic nature of state governments, I have no doubt that privately operated prisons will continue to be used. Governments are seeking productivity gains – more and better services at a cheaper price. While it is not clear how much of a gain in productivity governments can achieve through prison privatization, it is clear that they must reduce residual rights of control by enhancing their performance measurement and insuring mechanisms of

accountability. Absent these controls, private prison operators will squeeze profits by lowering the quantity and quality of their services.

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Appendix I. Appendix table 19 from the BJS report *Prisoners in 2008*.**Appendix Table 19.**

Number of state and federal prisoners in private facilities, by jurisdiction, December 31, 2000, 2006-2008

Region and jurisdiction	Number of prisoners			Percent of all prisoners 12/31/2008
	12/31/2000	12/31/2007	12/31/2008	
U.S. total	87,369	123,942	128,524	8.0%
Federal ^a	15,524	31,310	33,162	16.5
State	71,845	92,632	95,362	6.8
Northeast	2,509	4,268	4,186	2.3%
Connecticut	0	0	0	0.0
Maine	11	42	0	0.0
Massachusetts	0	0	0	0.0
New Hampshire	0	0	0	0.0
New Jersey ^b	2,498	2,686	2,641	10.2
New York	0	0	0	0.0
Pennsylvania	0	1,022	819	1.6
Rhode Island	0	0	0	0.0
Vermont ^b	0	518	726	34.3
Midwest	7,836	5,048	5,415	2.1%
Illinois	0	/	/	:
Indiana	991	1,683	2,642	9.3
Iowa	0	0	0	0.0
Kansas	0	0	0	0.0
Michigan	449	0	0	0.0
Minnesota	0	1,183	612	6.5
Missouri	0	0	0	0.0
Nebraska	0	0	0	0.0
North Dakota	96	0	0	0.0
Ohio	1,918	2,138	2,133	4.1
South Dakota	45	21	15	0.4
Wisconsin	4,337	23	13	0.1
South	45,560	56,117	57,888	8.9%
Alabama	0	355	101	0.3
Arkansas	1,540	0	0	0
Delaware	0	0	0	0.0
District of Columbia	2,342	~	~	:
Florida	3,912	8,769	9,158	8.9
Georgia	3,746	4,974	5,138	9.7
Kentucky	1,268	2,404	2,209	10.2
Louisiana	3,068	3,004	2,928	7.6
Maryland	127	151	186	0.8
Mississippi	3,230	4,794	5,497	24.2
North Carolina	330	213	217	0.5
Oklahoma	6,931	5,917	5,711	22.1
South Carolina	0	9	12	0.0
Tennessee	3,510	5,121	5,155	18.9
Texas	13,985	18,871	20,041	11.6
Virginia	1,571	1,535	1,535	4.0
West Virginia	0	0	0	0.0

Appendix Table 19. (cont.)
Number of state and federal prisoners in private facilities,
by jurisdiction, December 31, 2000, 2006-2008

Region and jurisdiction	Number of prisoners			Percent of all prisoners 12/31/2008
	12/31/2000	12/31/2007	12/31/2008	
West^a	15,940	27,199	27,873	8.8 %
Alaska	1,383	1,524	1,450	28.9
Arizona	1,430	7,790	8,369	21.1
California	4,547	3,032	3,019	1.7
Colorado	/	4,878	5,274	22.7
Hawaii	1,187	2,129	2,108	35.4
Idaho	1,162	1,969	2,114	29.0
Montana	986	1,324	1,314	36.4
Nevada ^b	508	0	0	0.0
New Mexico	2,155	2,720	2,935	45.8
Oregon	0	0	0	0.0
Utah	208	0	0	0.0
Washington ^c	0	1,203	863	4.8
Wyoming	275	630	427	20.5

^a:Not calculated.

^b:Not reported.

^c:Not applicable. After 2001, responsibility for sentenced felons from the District of Columbia was transferred to the Federal Bureau of Prisons.

^aIncludes federal prisoners held in non-secure, privately operated facilities (8,644 at yearend 2008; numbers from other years can be found in earlier publications).

^bIncludes prisoners held in out-of-state private facilities.

^cIncludes estimates for Nevada for December 31, 2007. See *Methodology*.

Appendix II. References

Legend:

L= Lundahl, Brad W., Kunz, Chelsea, Brownell, Cindi, Harris, Norma, Van Fleet, Russ (2009)
P= Pratt, Travis C., & Maahs, Jeff. (1999) and Perrone and Pratt (2003)
S= Segal, G. F., & Moore, A. T. (2002)

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Table 1 Growth in the Private Prison Sector

Year	Number of prisoners			Percent of all prisoners
	Total	Federal	State	
2000	90,542	15,524	75,018	6.5%
2001	91,953	19,251	72,702	6.5
2002	93,912	20,274	73,638	6.5
2003	95,707	21,865	73,842	6.5
2004	98,628	24,768	73,860	6.6
2005	107,940	27,046	80,894	7.1
2006	113,697	27,726	85,971	7.2
2007				
June 30	118,239	30,379	87,860	7.4%
December 31	125,997	31,310	94,687	7.9
2008				
June 30	126,249	32,712	93,537	7.8%
Annual change				
Average annual change, 12/31/2000-12/31/2007	4.8%	10.5%	3.4%	:
Percent change, 06/30/2007-06/30/2008	6.8	7.7	6.5	:

Note: Includes estimates for Illinois for 2006, 2007, and 2008 and Nevada for December 31, 2007.
See *Methodology*.
:Not calculated.

Table 2. Avoidable and Unavoidable Central Office Costs, Oklahoma Department of Corrections, 2000

Unit	Amount (Dollars)	Allocated to State Operations	Allocated to Private Operations	Amount (Dollars)
Administrative Services	356,869	Yes	No	
Adult Basic Education	64,000	Yes	No	
Building Maintenance	474,896	Yes	No	
Center for Correctional Officer Studies	653,017	Yes	No	
Central Transportation	1,453,223	Yes	Yes	1,453,223
Chief of Operations	430,245	Yes	Yes	430,245
Information Technology	2,736,643	Yes	Yes	2,736,643
Construction & Maintenance	1,432,987	Yes	No	
Curriculum Development	13,100	Yes	No	
Day Reporting	124,000	Yes	No	
Directors Office	554,242	Yes	Yes	554,242
Education Administration	342,908	Yes	No	
Electric Monitoring	586,000	Yes	No	
Finance & Accounting	1,482,278	Yes	Yes	1,482,278
General Administration	3,864,918	Yes	Yes	3,864,918

Internal Affairs	531,442	Yes	Yes	531,442
Legal Services	1,143,344	Yes	Yes	1,143,344
Offender Program Monitor	607,933	Yes	Yes	607,933
Office Technology	560,651	Yes	Yes	560,651
Oklahoma State Industries	3,001,683	Yes	No	
Personnel	1,100,458	Yes	No	
Population Management	1,542,864	Yes	Yes	1,542,864
Probation & Parole Equipment	500,000	Yes	No	
Public Relations	168,631	Yes	Yes	168,631
Research & Evaluation	698,830	Yes	Yes	698,830
Safety	22,100	Yes	No	
Sentence Administration	323,534	Yes	Yes	323,534
Staff Development Center	848,991	Yes	No	
Statewide & Regional Cognitive Skills	73,700	Yes	No	
Tulsa Female Offender Care	66,666	Yes	No	
TOTAL	\$ 25,760,153			\$16,098,778

Table 3. Abt and CNA Analyses of Cost for Publicly and Privately Operated Federal Prisons

Fiscal Year	1999		2000		2001		2002	
	Abt	CNA	Abt	CNA	Abt	CNA	Abt	CNA
Elkton	39.72	35.24	39.77	34.84	44.75	36.79	46.38	40.71
Forrest City	39.46	35.29	39.84	35.28	41.65	37.36	43.61	38.87
Yazoo City	41.46	36.84	40.05	34.92	43.65	37.29	42.15	38.87
Taft	33.82	34.42	33.25	33.21	36.88	37.04	36.37	38.62