Appendix 2

The Performance of Privately Operated Prisons: A Review of Research

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There are good and bad public sector prisons, just as there are good and bad private sector prisons. As Thomas and others have noted (Casile 1994; Thomas 1997a), whether improvements in quality can be expected depends upon how well or poorly public-sector institutions are run by the respective government agencies. In a public system with good management, good labor relations, and adequate funding, the potential for improving quality by contracting prisons to private contractors is less than where these conditions do not exist in the public sector.

Despite the paucity of evidence, those who argue for the private operation of prisons do so based on one or two premises. They claim privatization introduces competition into an otherwise public monopoly and this enhances services throughout the system while lowering the overall costs. Secondly, they claim that private prisons can deliver the same or better services at a lower cost than the public sector because "the marketplace" compels efficiency, ingenuity, and innovation.

Moore (1998) has published a recent review of the privatization research. He argues that private companies save money through "new management approaches, new monitoring techniques, and administrative efficiencies (p. 15)." Since labor is about two-thirds of correctional operating budgets, labor cost savings, according to Moore, have been achieved through efficient facility design, reduction in administrative personnel, minimization of overtime, and greater freedom to manage personnel. Moore offers little evidence of these innovations and does not indicate how such savings translate into affective inmate supervision and management. He cites the Archambeault and Deis study (which we review in great detail), claiming the private sector can reduce significant incidents, such as prison disturbances, relative to the public sector prisons. We found that evidence to be misleading, and, in some cases, quite inaccurate. Moore makes the assumption that "... incidents lead to lawsuits, which increase personnel costs." He argues that market pressures and the competition for contracts result in better direct services to inmates. This is typical of the argument-without-proof that is often found in this literature. Anecdote is combined with "glittering generalities" to produce a conclusion having little or no foundation. Rather than critically evaluating each study on its own merits, Moore's review of the prison quality literature merely cites those conclusions reached by the individual authors.

In this paper, we take a more systematic and critical approach to reviewing the research literature on privatization. We examine the relative performance of publicly and privately operated prisons. However, we also look beyond that comparison to see if there is evidence that privatization has an effect on the entire public prison system and whether there is evidence that privately operated prisons introduce ingenuity and innovation into the management of correctional institutions.

We critically analyze the literature that has accumulated which compares the quality of publicly and privately managed prisons focusing on studies done in the United States. There have also been evaluations conducted on prisons in the United Kingdom and Australia. Since we are unfamiliar with the way these systems function, and we are unsure of the applicability of these studies to privately operated prisons in the United States, we have excluded those studies from our analysis.

We review evaluations done in Massachusetts, Kentucky, California, Tennessee, Arizona, Louisiana, New Mexico, Florida, as well as the Washington State review of the literature. We systematically analyze these evaluations in terms of the methodology employed, in particular, whether the evaluations compared institutions on the basis of performance measures and/or an audit/compliance approach. We examine the evaluations with respect to how well they meet other methodological criteria. These criteria were also identified by the Government Accounting Office (1996: 13) and include whether equivalent facilities (and inmates) were compared; whether multiple indicators or data sources were utilized for cross-validation; and whether the assessments were based on one-shot or multi-year comparisons. Finally, we review the reports to assess the types of innovations (if any) employed in the private (or public) sector that are intended to produce improvements in the quality of services provided to inmates.

Although we are very critical of most of the studies that have been conducted, in our conclusion of this paper, we try to build upon these criticisms and propose an optimal design for assessing performance among institutions. This design can be used to evaluate aggregate measures of institution performance regardless of whether one is interested in the private/public comparison or in an understanding of those aspects of institution operations that produce positive or negative outcomes.

Massachusetts and Kentucky

The Urban Institute undertook a study between 1987 and 1988 to fill the void of empirical findings available to aid states and local governments in making choices about private corrections (Urban Institute 1989). While prison population growth and associated costs had led some to advocate the privatization of corrections, opponents of privatization questioned the propriety, legality, and constitutionality of private prisons. Advocates had argued that competition and less red tape would enable private contractors to achieve lower costs and faster procurement of facilities and equipment than was possible for government agencies.

Nevertheless, at the time of this study, there had been little empirical data used to test the assumption that the cost and quality of private sector correctional facilities were superior to that of public sector facilities. The Institute's objective in this study was to assess and identify any differences in cost, service quality, and effectiveness between publicly and privately run facilities and to identify reasons for any differences that were found. Legal, propriety, and philosophical issues of private corrections were intentionally not addressed by the study.

The study compared three pairs of facilities, one pair of minimum security adult facilities in Kentucky and two pairs of facilities which housed violent juveniles in Massachusetts. Each pair consisted of one private and one public facility.

Common methodological procedures were employed during the collection of data in both states. The procedures included:

1 Extraction of data from agency records reflecting the number of escapes or attempted escapes, returns to prison after release, results of facility inspections, and cost data.
2 Surveys of inmates and staff at each institution using a modified version of the Prison Social Climate Survey (PSCS) questionnaire designed by the Office of Research and Evaluation of the Federal Bureau of Prisons (Saylor 1984).
3 Interviews with operations and oversight personnel at each facility.
4 A physical inspection of each facility by Urban Institute project staff using a visual inspection rating form designed for the inspections.

The data collection took place between January 1987 and September 1988. It appears that considerable effort was made to select pairs of facilities that were similar in mission and in the types of inmates they housed. The authors acknowledge some major differences in the physical characteristics of the facilities. For example, the Kentucky facilities housed minimum security adults while the Massachusetts facilities housed violent juveniles. The public sector adult facility housed more inmates than did the private sector adult facility (the public facility had an average daily population of 353 while the private facility had an average daily population of 206). And, the juvenile facilities all housed small numbers of inmates. Three of the facilities had 15-bed capacities and one of the facilities had a 16-bed capacity. Presumably each facility was operating at capacity throughout the duration of the study.

Some concern was expressed about the comparability of the inmate populations in the matched facilities, particularly the adult facilities in Kentucky. However, after an examination of the inmate characteristics in each pair of facilities, the evaluation team believed the comparison populations were reasonably equivalent. It appears to us, however, that the initial concerns expressed by the researchers were well founded. The differences appear greatest in the adult population, with the public sector facility housing the more difficult population. Conversely, the private sector facilities appear to have the more difficult juvenile population, with a larger segment of more serious criminal offenders.

In the adult population, the public sector facility had 14 percent more violent offenders. The private facility had 11 percent more new offenders while the public facility had 10 percent more returnees with new offenses. The public facility inmates had a median number of years to serve that was 3 years greater than the inmates in the private facility, with 38 percent of the public inmates serving more than 10 years as compared to 22 percent of the private facility inmates serving sentences of more than 10 years. Additionally, the median age of the public sector inmates was 5 years greater than the median age of the inmates in the private sector facility, with 15 percent of the public facility inmates over the age of 45 compared to 2 percent of the inmates in the private sector facility.

For the juvenile population, the primary differences were in race and offense. The public facilities were composed of 50 percent black and 27 percent white inmates, while the private facilities were composed of 30 percent black and 48 percent white inmates. While 52 percent of the juveniles in

the public facilities were committed for offenses against the person, 79 percent of the juvenile population in the private facilities had committed an offense against the person. Furthermore, public facility populations were composed of inmates who committed more property (27 percent) and miscellaneous offenses (18 percent) than their private facility counterparts (12 percent property and 6 percent miscellaneous offenses).

Although the study employed common data collection methods in both states, the analysis and reporting were produced independently for each state. Consequently, there was considerable loss of comparability in the application and interpretation of the measures and in the construction of the tables that were used to summarize the findings. It seems that this lack of integration defeats any benefit that might have derived from a common methodology. Admittedly, the differences in the nature of the facilities and their populations might have diminished the comparability anyway, particularly given the univariate nature of their analysis.

The report describes the sampling method employed for obtaining the adult inmate observations. The warden initiated the process by drawing several numbers from a hat. These numbers were used to select inmates from a list based on whether the 2 or 3 numbers drawn by the warden appeared in the last digit of the inmates DOC identification number. A stronger sampling design for the Kentucky inmates would have increased the comparability between the sample and the population. The remainder of the staff and inmate observations from both states were intended to be a census of the population.

The authors used a chi-square test of statistical significance throughout the report, although it is only relevant to the tables of figures for the Kentucky inmates where a sample was drawn. The inferential test was inappropriate for the remaining data since these were population characteristics of staff and inmates at the facilities. Their use of the chi-square statistic as a measure of importance is inappropriate both because (except for the adult sample) the study is an analysis of the populations and also because it confuses statistical significance and substantive significance. The evaluators attribute substantive significance to differences in group means simply because the chi-square was statistically significant, while the metric and substance of the measure suggest that there is little importance in the observed difference.

The principal findings of the study were that the quality of services and programs were superior at the privately run facilities. The method for determining superior performance in the provision of services was based on counting the number of measures (from each of the four types of data: agency records, inmate and staff survey questionnaires, interviews with facility officials, and visual inspection ratings) on which each private or public facility exceeded, or performed better, than its comparison facility. Based on this method, the private facilities uniformly had a larger number of positive evaluations on the set of measures. Many of the differences that favored the private facilities were obtained from the staff questionnaire data. Ironically, the authors admit that juveniles in both the public and private facilities had virtually indistinguishable responses to questionnaire items about service delivery .

The greatest deficiency of the study was its reliance on univariate analyses. The statistical analysis consisted of univariate group mean comparisons. This method of statistical analysis created comparability problems in spite of the researchers' efforts to select comparable pairs of facilities. The reality is that without an experimental design, it is virtually impossible to obtain two facilities that are similar enough to provide meaningful comparisons without statistically adjusting for potentially confounding aspects of each facility. A multivariate analysis would have been more appropriate.

There were no coherent or systematic models specifying desirable performance outcomes and structural or operational processes that would be expected to accelerate or inhibit those levels of performance. The absence of theories or models to guide the analysis resulted in a much more voluminous and unwieldy report. Performance models would have allowed the evaluators to test for institutional differences in a more systematic, precise manner, explicitly acknowledge preexisting differences, and adjust the expected outcomes accordingly. The methods employed resulted in arbitrary decisions and attributions about degrees of comparability and levels of performance, and in general obfuscated the meaning of any public and private sector differences in the measurement set.

Statistical models of the sort proposed by Saylor (1996) and Camp et. al. (1997; 1998) could have minimized the need for presumptions about comparability and would have made the determination of performance differences, and the interpretation of those differences, straight- forward. Such performance models would specify certain outcome measures and the process measures that are believed to influence or control those selected outcome measures. The complexity of these models would necessarily be limited by the small number of observations available. However, with thoughtful preparation, meaningful models that fell within the limits of the number of staff and inmate observations could have been identified. This same criticism can be applied to virtually every study we reviewed. Rather than repeat that criticism throughout the report, we highlight the problem here and in our summary of this research literature.

The study methods did meet the subsequent GAO (1996) criteria for evaluating the quality of service delivery in correctional facilities; however, there were still quite a few deficiencies as we have noted. There is no discussion of the types of innovations employed to achieve better quality of services and programs.

California Evaluation

In adult corrections, California entered into contracting out for prison services around 1991 by allowing cities, counties, and private companies to operate Community Corrections Facilities (CCFs). Originally, these facilities were intended to house only inmates who had been returned to custody for parole violations. But given the crowding pressures in the state of California, the decision was soon made to allow new admissions into the facilities. Originally, there were 12 of these facilities, but by the time of the Sechrest and Shichor study (1994), the number had declined to 11.

Sechrest and Shichor (1994) conducted an exploratory study of 3 of the 11 facilities. Two of the facilities were run by public entities, one by the police department of a small community in the San Joaquin valley and the other directly by the city administration of a small city in the Mojave Desert. The privately operated facility was run by Management and Training Corporation (MTC) of Utah. It is important to note that none of the comparison facilities were actually operated by the California Department of Corrections (CDC).

Two types of data were collected for the quality comparisons. First, surveys were administered to staff and inmates at each of the three study facilities as well as staff and inmates at two CDC facilities: the California Institution for Men at Chino and the California Rehabilitation Center at Norco. Additionally, interviews were conducted with the wardens at the three study facilities. The survey data and on-site visits were used to assess conditions of confinement. The second source of data came from official inmate data as provided by the Offender Information Services Branch of the CDC. In addition to providing background information about the types of inmates at the respective institutions, the official records also allowed the inmates to be tracked for recidivism (parole violation for a new offense, technical violation of a condition of parole, or no violation).

The survey instruments used were taken from the surveys used in the study of private facilities in Massachusetts and Kentucky undertaken by the Urban Institute (1989). Unfortunately, because of study constraints, the surveys were administered to a fairly small number of inmates, and these inmates were not chosen randomly. As such, it is not clear what confidence can be placed on the results from the inmate surveys. The survey of staff suffered from the same problems, although the number of surveys is even smaller (68 total surveys from all 5 facilities). Since the results cannot be generalized to the staff and inmate populations from which they were drawn, we see no reason to review the results. We simply do not know what they mean.

There are also methodological problems in terms of using the data on recidivism. We concur with the summarization of the California study drawn by the General Accounting Office (1991: 31):

> ... Sufficient data were not available to adequately complete the analysis comparing the inmates released from the community correctional facilities to inmates released from other correctional institutions in the state.

In summary, the California study's methodological limitations prohibit drawing any overall conclusions about quality of service.

Tennessee Evaluation

The Tennessee prison system, like prison systems in many jurisdictions, came under intense capacity pressures in the 1980s that resulted in litigation (Grubbs v. the State of Tennessee, 1985). As a result, the state legislature approved a substantial building program that started in 1985 and resulted in the building of six prisons along similar architectural lines as well as a special needs facility. In 1991, the state adopted legislation enabling the contracting out of correctional

services to private contractors. A decision was made to turn over one multi-custody facility to a private contractor (Corrections Corporation of America as it turned out) to see what could be learned about best practice. The enabling legislation required a research component to assess quality and cost (Tennessee Select Oversight Committee on Corrections 1995). As stated:

> TCA 41-24-105 (d) The contract may be renewed only if the contractor is providing at least the same quality of services as the state at a lower cost, or if the contractor is providing services superior in quality to those provided by the state at essentially the same cost.

As a result, a bi-partisan committee from both houses of the General Assembly, the Select Oversight Committee on Corrections (SOCC), brought together staff from the Tennessee Department of Correction (TDOC) with executives from CCA to formulate a methodology for conducting the quality and performance assessment. With the assistance of the Vanderbilt Institute of Public Policy Services, formal meetings between TDOC and CCA produced a comparative methodology that was admittedly not an academic research project, but it fulfilled the requirements of the legislation. Importantly, both the public and private sectors agreed to the essence of the comparative methodology. Essentially, the process entailed that an audit/compliance check would provide the basic methodology for comparing the South Central Correctional Center (SCCC) operated by Corrections Corporation of America (CCA) with the two state-operated facilities, the Northeast Correctional Center (NECC) and the Northwest Correctional Center (NWCC). The three facilities chosen for comparison were all based on the same general architectural design as discussed above. SOCC wanted to insure a "level playing field" for all three facilities, consequently, in addition to similar physical design, all facilities came on line at approximately the same time. By mid-1992, all three facilities were operational.

There were six elements in the comparative methodology used, although only three of the elements actually received weight in computing the final aggregate score.[1] The audit portion

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[1]The elements not used were the nature of inmates, professional standards, and a survey of staff and inmates. As noted in the report, there is a need to make level-playing field comparisons, and as such, a need to control for the nature of inmates. However, this was not done, and the report showed that there was substantial variation in inmate characteristics at the three facilities. For example, 47.5 percent of the inmates at SCCC (operated by CCA) were black, as compared to 22.6 percent at NECC and 78.2 percent at NWCC. While these percentages may reflect the racial backgrounds of the regions of Tennessee where the prisons are located, the prisons themselves are hardly comparable on this item. Similar differences were noted for custody classification of inmates.

The professional standards, those set by the American Correctional Association (ACA), State Fire Marshal reports, State Education Department, and local and state health and sanitation standards, were considered minimum standards. However, the audit items created as discussed above closely mirror items of concern in CCA accreditation inspections.

counted for 60 percent of the total score. A list of 200 elements was compiled. Joint teams comprising staff from both TDOC and CCA conducted the audits. Ratings of compliance in the areas of Administration, Safety and Conditions, Health Services, Mental Health, Treatment, and Security were compiled as well as an overall rating of compliance. Two inspections were held at each of the three facilities. In general, the results showed comparable levels of performance at each of the institutions. On the first inspection, the overall compliance rates for the two public-operated facilities (NECC and NWCC) were respectively 90.67 percent and 90.08 percent. For the SCCC facility operated by CCA, the overall compliance rate was 84.53 percent. Both of the public institutions scored slightly better than the private facility, although the differences are modest. On the second inspection, the three facilities were virtually identical with 95.28 percent and 97.23 percent compliance at NECC and NWCC, respectively, and 97.48 percent compliance at SCCC.

A security and safety index was the second element that received weight, and accounted for 25 percent of the final aggregate score. The parties agreed not to assign an objective score on this dimension, even though the factors considered included disciplinary reports, use of force, assaults (both inmate-on-inmate and inmate-on-staff), deaths, injuries, escapes, and a residual category for other security and safety concerns. SOCC felt that scoring this area relied too heavily upon professional judgment. The working assumption used in the evaluation was that all institutions were in full compliance with safety and security standards, and the review would only note deficiencies in safety and security practices.

As might be expected, even though the evaluation reports on differences in the factors of safety and security, the conclusion is pretty mild. “Each of the institutions met the security and safety requirements of the two annual inspections and an ACA audit. Their respective scores were exceptionally high and almost identical. The administrative choices of how and when to use force, how to dispose of disciplinary charges, or how many disciplinary tickets to write is really the prerogative of management. However, in reviewing the entire period, in our judgment there was very little difference in security and safety among the three facilities” (Tennessee Select Oversight Committee on Corrections 1995: 56).

The final element that received weight (15 percent) was an index of programs and activities. Generally, this was a review of the numbers of inmates in education programs and work status. The indicator that received the most attention in the report was inmates in job waiting status. Because of a lack of an operational industry program at SCCC (operated by CCA) and NWCC by the second year of operation, these two institutions had higher percentages of inmates in job waiting status. At the time of the review, SCCC was not in compliance with the policy that inmates job structures comprise 6 hours. CCA responded, though, that they changed their practice to be in compliance.

The surveys were intended only to provide subjective measures of satisfaction from staff and inmates and to provide insights into operational issues.

In determining a final weighted rating score to compare the institutions, the scores on security and safety as well as program and activity were meaningless as all three institutions received the maximum number of points on these scores. The only scores that differed among the three institutions were for the percentage of compliance captured in the second audit. The scores for the first audit (where CCA scored lower than the two public facilities) were not used. Since the CCA facility had a slightly higher compliance rate (97.48 percent as compared to 97.23 at NWCC and 95.28 at NECC), it came out slightly higher on the final weighted score (finals scores: SCCC, 98.49; NWCC, 98.34; NECC, 97.17). But as SOCC (1995: 68) noted, "In reviewing the ratings we considered the range of difference of up to 3 percent among the three facilities as essentially comparable. Therefore, our conclusion was that all three facilities were operated at essentially the same level of performance." Despite this conclusion, the New York Times ran an article at the time the Tennessee evaluation was released that concluded that there was strong evidence that CCA ran a better facility than the two public comparisons in terms of quality and cost (Butterfield 1995).

The Tennessee evaluation is often cited as one of the more sound methodological attempts at comparing private and public prisons. For one, it compares institutions that were of a similar architectural design, were opened at about the same time, and were designed to house inmates of similar custody levels. Nonetheless, there are some serious shortcomings to the Tennessee evaluation.

First, the review is based solely on operational audits of the three facilities. This means that no performance measures were used in actually comparing the prisons, even though some attempt was made to gather performance data related to inmate misconduct, programs provided to inmates (primarily education), and the like. Generally, the position taken was that on the measures that could be developed as performance indicators (measures of safety, security, and program activity), there were no differences among the institutions. All institutions were comparable and received the maximum number of points in these areas. However, even a cursory examination of the actual tables presented on misconduct, education, and the like makes this conclusion suspect.

Second, it is not clear that the facilities provide an apples to apples and oranges to oranges comparison. Even though all three facilities were multi-custody, they housed quite different types of inmates in terms of the socio-demographic characteristics reported, age and race, criminal history, and custody classification. Of course, these differences did not have as much impact upon the Tennessee evaluation as they would have if factors other than operational compliance had been used to calculate the final weighted scores of performance.

Third, the evaluation is a one-shot comparison even though data were collected over two years. For whatever reason, the compliance data from the first audit at each institution is reported but not used in determining the final comparative scores.

Fourth, only a single source of data, the compliance audit, was used to construct the final scores for the three institutions. As mentioned previously, this flows post hoc from the decision to award

all three institutions the maximum number of points on safety and security as well as programs and activities. It is not that multiple data sources were not compiled, it is that they were ineffectively used (if used at all) in drawing the final comparisons between the private prison and the two public prisons.

Fifth, there was no attempt to document how the private sector had employed innovations in maintaining or improving quality while at the same time holding down or maintaining costs. There is not even any reference as to how the respective institutions were staffed. While not stated directly in the report, it even appears that private sector innovation was deliberately thwarted by making the private sector provider, CCA, abide by TDOC policy in running SCCC. In other words, it appears that Tennessee took the position that SCCC was simply another TDOC facility, to be run by TDOC policy, and that CCA would simply be given the opportunity to see if they could out-TDOC the TDOC. If this were the case, then obviously this limits the knowledge that can be gleaned about the benefits of privatization. Additionally, the design of the facility was set by the state, and the private contractor (CCA) did not have the opportunity to incorporate potential design efficiencies into the facility. Presumably, though, design considerations would impact more upon cost than quality.

Finally, there is no mention in the evaluation about the consequences of privatization for the TDOC and how TDOC operations may have changed.

Washington State Review

As part of a wider inquiry into the privatization of government services, the Legislative Budget Committee (LBC) of the state of Washington was asked to submit a report by January of 1996 on the feasibility of privatizing Washington State Department of Corrections facilities. Part of the feasibility study included an examination of quality issues.

The researchers did not collect original data for their assessment of the impact upon quality created by contracting for correctional services. Instead, they reviewed studies conducted by Logan (1991) and the Tennessee Select Oversight Committee (1995). Both of these studies are reviewed at length elsewhere in this report.

The LBC also performed cost analyses of public and private prisons in Tennessee and Louisiana. They collected published data for conducting this component along with additional data from the respective state agencies and private contractors. The LBC researchers also went onsite to observe operations. While we are not concerned with the cost analyses here, they did make some qualitative observations about operations in Tennessee and Louisiana. It is these observations that are of interest here.

Review of Quality

The LBC researchers concluded that the Logan (1991) and Tennessee (Tennessee Select Oversight Committee on Corrections 1995) studies demonstrated no significant differences in quality between the publicly and privately operated prisons. They actually do not provide any information about how they reached this conclusion. This is surprising since their conclusion is at odds with Logan's claim that the private contractor provided better quality than the state and federal prisons in his study.

Qualitative Observations of Operations in Louisiana and Tennessee

The LBC researchers examined several questions to address the issue of whether similarities exist between the inmate populations and behaviors both within and between states. The LBC sought to examine whether the experiences with privatization in Louisiana and Tennessee could be generalized to the state of Washington, and this led to the inter-state comparisons. For our purposes, the within state comparisons are of more interest as they address how the private and public prisons compared in Louisiana and Tennessee.

The LBC researchers concluded that inmates in the public and private prisons within each state behaved about the same. They based this conclusion in part upon an examination of the number of escapes, the major infraction rate, the minor infraction rate, and the percentage of inmates in school. In part, though, it appears that the conclusion was based upon subjective evaluations. The LBC researchers note that "(t)here were comments made to us in both Louisiana and Tennessee about a belief of under reporting of infractions and incidents at the private prisons, but headquarters administrators said they thought all of the prisons were safe and secure" (Thomas, Gookin, Keating, Whitener, Williams, Crane, and Broom 1996: A4-4). In fact, in Louisiana, both the major and minor infraction rates were higher at the state-operated prison, although little emphasis is given to this fact.

Other areas briefly covered in the Washington study are demographic and criminal history characteristics of inmates, classification policies, inmate idleness, and program opportunities. Most of the relevant comparisons for these factors were between states. However, the LBC researchers did note that the private prison in Louisiana run by CCA had a lower percentage of inmates enrolled in education as a result of CCA losing federal grant monies upon which they were dependent. Otherwise, the public and private prisons were seen as fairly comparable. As the LBC researchers note: "The prisons we visited appeared clean and orderly. ... Staff were professional both in appearance and performance. There did not appear to be major differences in operations." (Thomas et al. 1996: A4-9)

There are several shortcomings to the LBC report with regards to quality assessment. First, the LBC review depends upon reviewing performance data (such as escapes, infractions, etc.), but it is not clear how the individual data elements were pulled together to reach a general conclusion.

Likewise, even though there is recognition that reported incidents depend upon the nature of inmates and reporting procedures, there was no attempt to adjust rates for these factors.

Second, as discussed in the reviews of the studies by the Tennessee Select Oversight Committee (1995) in Tennessee and Archambeault and Deis (1996) in Louisiana, the evaluations do seem to provide more apples-to-apples comparisons than are generally found in other evaluations. However, unanswered questions remain about how much the institutional averages for inmate behavior are influenced by race differences (e.g., Tennessee) or classification differences (e.g., Louisiana).

Third, the analysis does not address the time dimension. Generally, even though they review data from two separate states, the data are for a single point in time. This does not allow for an assessment of how quality in the public and private sectors may vary over time.

Fourth, there was no systematic attempt to obtain information on sources of innovation available to private sector operators to improve *quality*. This was not the case for private-sector costs. The LBC does attempt to disaggregate sources of cost savings for private-sector operators into savings from using different staffing patterns, savings from providing different employee benefits, and savings from salaries. In general, they claim that the private-sector operators use staff in more than one area, and they have more flexibility in using staff. In addition to providing little detail about these claims, the LBC researchers do not go on to discuss how these changes affected quality in the respective prisons.

Finally, there is only limited information on the impact of privatization on public-sector operations in Tennessee and Louisiana, and most of those insights pertain to costs. In noting that the cost savings in Louisiana have become smaller over time, the LBC offered this possibility (but no direct evidence):

> One explanation for the convergence of costs over time may be the effect of competition. This is an argument made by the private companies that was also mentioned by some state correctional officials. Lean budget years may also have made a difference. For some years the inflationary increases built into the private contracts has been greater than the increases in the corrections budget. So while the per diem cost for the private prisons has inflated, it has not inflated for the public facility (Thomas et al. 1996: 12).

It is worth emphasizing that the Washington State study is a presentation and analysis of data that can also be found elsewhere (Archambeault and Deis 1996; Tennessee Select Oversight Committee on Corrections 1995). While the results of the LBC study generally mirror those of the Tennessee Select Oversight Committee about the experiences with privatization in Tennessee, the LBC conclusions about the experiences in Louisiana conflict with the data analysis presented by Archambeault and Deis (1996).

Arizona Evaluation

The Utah-based firm Management and Training Corporation (MTC) won a contract from the state of Arizona in 1993 to operate a 450-bed minimum security, mixed gender institution. The institution is now known as the Marana Community Correctional Treatment Facility. MTC began receiving inmates in October 1994. Generally speaking, the contract stipulates that MTC run the Marana facility in a manner similar to that in which the state would have operated the prison. MTC must abide by all applicable policy stipulating how Arizona state prisons are run (Nink 1998). By law, the contract with MTC could not be renewed unless there was evidence of either 1) cost savings and comparable quality or 2) comparable costs and superior quality. Dr. Charles Thomas was selected to conduct the corresponding evaluation.

Thomas was faced at the outset with a number of serious methodological problems. First, the Marana facility is a dual gender facility, but there are no dual gender facilities operated by the state of Arizona to serve as a point of comparison. Twenty-two percent of the inmates incarcerated at Maranna are female. Second, the prisoner population profile is different from those of the publicly operated minimum security prisons in Arizona. In particular, Marana houses a much higher percentage of DWI inmates (24.8 percent) than is true of all other Arizona facilities (with the exception of Papago, 98.9 percent, which is almost exclusively a DWI center). Also, the Arizona Department of Corrections contractually agreed not to send to Marana prisoners who "have serious or chronic medical problems, serious psychiatric problems, or are deemed unlikely to benefit from the substance abuse program" (Thomas 1997a: 73). Third, the classification of the inmate population "tilts" toward being less serious at Marana than at the other Arizona facilities (Thomas 1997a: 106). In particular, all of the inmates at Marana are public risk 1 or 2 inmates (with 1 being the lowest risk), as they are, for the most part, at the other Arizona prisons. However, whereas the other Arizona prisons have inmates with internal risks greater than 2 (i.e, inmates who require more supervision), Marana has practically no inmates with an internal risk factor greater than 2 (Thomas 1997a: Appendix A, Table 3: A9). This is important as higher risk classification scores are generally predictive of misconduct. In other words, 14.11 percent of public risk level 1 or 2 inmates at publicly operated Arizona prisons have an internal risk greater than 2. Only 0.24 percent of the inmates at Marana have a similar classification. Fourth, the contract with MTC calls for providing a "heavier" load of programming to Marana inmates than is the case in publicly-operated minimums. And, finally, the physical design of Marana is unlike that of other Arizona facilities, primarily because it is newer.

Within these constraints, Thomas decided to compare cost and quality performance measures at Marana against the average for all minimum security institutions under public operations. Arguably, Thomas did not have many good options, but it is not clear that the choice he made is completely satisfactory. Very different types of institutions make up the full contingent of minimum security facilities in Arizona. We reserve this discussion for later. As Thomas notes in his chapter on comparing quality, " Any or all differences could be caused by nothing more or less than the fundamental dissimilarities between the Marana Community Correctional Facility and the fifteen state-operated facilities" (Thomas 1997a: 108).

Even recognizing the serious limitations to the study, Thomas drew 13 conclusions from his study, 7 of which pertain directly to the issues associated with quality as determined in the Arizona evaluation. We largely ignore Thomas' review of existing literature on quality comparisons as the relevant studies that Thomas reviewed are also reviewed as part of this report. We also exclude his conclusions about cost. Thomas' seven conclusions about quality of operations in Arizona are worth reporting in full, however. They provide the basis for our examination of the methodological issues raised in the Thomas study. The conclusions appear in full in both the Executive Summary and body of the report (Thomas 1997a: ii-iv, 157-159):

> Conclusion #4: There is a high risk that operating cost and performance comparisons of the Marana Community Correctional Treatment Facility could yield misleading results because there is no state-operated prison in Arizona that houses inmates similar to Marana or runs similar programs.
> Conclusion #7: The performance comparison on the dimension of protecting the public safety interest as measured by the frequency of escapes, major disturbances, and injuries caused to visitors revealed that the record for the Marana Community Correctional Treatment Facility was superior to that of the state-operated Level Two (minimum) prisons.
> Conclusion #8: The performance comparison on the dimension of protecting staff and prisoners from the risk of personal injury or death caused by homicide, battery, assault, and arson revealed that the record of the Marana Community Correctional Treatment Facility was superior to that of the state-operated Level Two prisons.
> Conclusion #9: The performance comparison on the dimension of educational, treatment, and work programs resulted in a best professional judgment that the dissimilarities between the programs offered at the Marana Community Correctional Treatment Facility and those found at the state-operated Level Two prisons were so great that no fair comparative conclusions could or should be reached.
> Conclusion #10: The performance on the dimension of compliance with professional standards as measured by routine Department performance audits, litigation initiated by either prisoners or staff members, inmate grievances, and compliance with in-service training requirements for staff members revealed that the overall record of the Marana Community Correctional Treatment Facility was superior to that of the state-operated Level Two prisons.
> Conclusion #11: A balanced consideration of the entire set of individual performance indicators revealed that the overall performance record of the Marana Community Correctional Treatment Facility was superior to that of the state-operated Level Two prisons.
> Conclusion #13: Notwithstanding the conclusion that, when compared with all state-operated Level Two prisons, the quality of performance at Marana was superior to that of the state-operated prisons, it was found that one or more individual state-operated prisons had performance records that were equivalent or superior to that of Marana.

Thomas justified drawing these conclusions by pointing to the necessity to have the information for policy purposes (Thomas 1997a: 103). Also, he claimed that the limitations cause the findings only to have "fuzzy" rather than "crisp" edges (Thomas 1997a: 104).

Nonetheless, Thomas recognized the risk associated with the comparisons he makes and that while Marana fared the best in his comparisons against the average for Level Two prisons in Arizona, some individual prisons had better performance measures than Marana. To Thomas' credit, he did report the performance measures individually for the 15 publicly-operated prisons.

Of the conclusions about quality listed above, Conclusions 7, 8, and 10 are based on direct examination of data presented by Thomas. As such, we review each of these conclusions in more detail. Thomas' other conclusions regarding quality are more subjective or global, and we do not discuss them specifically, although these quality conclusions (Conclusions 4, 9, 11, and 13) are reviewed in general.

Conclusion 7, the conclusion about public safety, is based on comparing rates of major incidences, escapes, and injuries to visitors. Thomas concluded that Marana's performance was "superior." However, as Thomas noted, none of the facilities (including Marana) had a single major disturbance, only 4 escapes occurred at the 15 state facilities (3 from Papago where the DWI cases are incarcerated) while there were none at Marana, and no injuries to visitors were reported at any minimum security prison (including Marana). None of these findings are surprising given that the facilities house minimum security inmates. What is surprising is that Thomas concluded, even with the cautionary remark in the *body* of the report that "readers must refrain from making more of this difference than is fair and reasonable" (Thomas 1997a: 111), that Marana was *superior* to the state facilities because 2 of the 15 state-run facilities had escapes.

It seems that reasonable commentators could conclude that Marana was exactly equivalent to 13 of the 15 state-operated facilities on the dimension of public safety, and that Marana -- and the 13 publicly-operated prisons -- were marginally better than two of the publicly operated facilities. The term marginal seems appropriate because there was a difference on only one of the three indicators, and the frequencies for the one indicator were not unusual. While escapes are rare, they do nonetheless occur (from private as well as public prisons).

Similar problems exist for Conclusion 8 about protecting staff and inmates. Thomas again gave ample warning about the tenuous nature of his conclusion, nonetheless concluding that Marana was superior. The rates of the types of serious misconduct considered by Thomas are very low at any minimum security prison. In essence, most of the forms of misconduct (like inmate-on-inmate assault), occurred only a few times -- if at all -- and at a limited number of institutions. Thus, comparisons of Marana to 15 other facilities is fraught with difficulties, especially when one considers that 22 percent of the inmates at Marana were female, a group with low rates of the types of misconduct considered.

In addition to Marana, three publicly operated facilities had perfect records on offenses related to protecting staff and inmates from serious injury. Two of the three publicly operated facilities (Globe and Maricopa) housed male inmates.

Thomas reported the rates of all Type A offenses (serious) charged and found guilty at each of the 16 prisons in his study. (He also reported comparable information for the less serious Type B and Type C offenses, but we ignore these for our purposes, since less serious offenses typically involve a great deal of discretion and, therefore, are often unreliable indicators of the "true" underlying pattern of misconduct). What is interesting about the Type A offenses is that they occur often enough to provide some confidence in the respective rates, although collapsing all serious offenses together means information is lost about what types of offenses are being reported at the respective institutions.

The rate at which Type A offenses are charged at Marana (0.33) compared very favorably to the rate (0.55) for the average of the 13 publicly operated facilities listed in Table 6 (Thomas 1997a: Appendix A, page 12). Nonetheless, in addition to the two female minimum-security institutions, two other male institutions (Globe and Piacho) had lower or comparable rates of Type A offenses (0.20 and 0.33 respectively). When we factor in that 22 percent of Marana inmates are female and females commit almost no Type A offenses (the rates for charging inmates at the female prisons in Arizona were 0.04 and 0.00), the rate of 0.33 at Marana is not as impressive.

Assuming that the 22 percent of the females at Marana were charged with Type A offenses at the rate of 0.04 (the highest rate noted in an Arizona female, minimum-security prison), then males at Marana were charged for Type A offenses at the rate of 0.41. At this adjusted rate, we see that Globe and Piacho compared favorably to Marana, as did San Pedro where the rate was 0.37. This still means that Marana was doing well, with a lower rate than 8 of the male, publicly operated minimum-security facilities. Nevertheless, Marana was higher than 3 of the publicly operated males facilities, and it was obviously higher than the rate at the two publicly operated female facilities. At best, Marana is comparable to the best public facilities, but it is hard to argue that Marana is superior if we trust the data on Type A offenses.

Regarding Conclusion 10, the factors considered included the comprehensive annual quality audits conducted by Arizona DOC (including an audit of Marana), litigation filed against the prison, inmate grievances, and compliance with staff training requirements. Marana was the only minimum security institution that did not receive an overall rating of excellent on the audit. Thomas implied, however, that the internal audits may have been stacked against Marana. Regarding litigation, there were only 14 lawsuits initiated by prisoners. This involved inmates at 8 of the 15 publicly operated facilities and none at Marana. There were two lawsuits initiated by staff, both at publicly operated prisons. For the rate of inmate grievances, the rate at Marana (0.26 per 100 inmates) was second only to Papago where the rate was 0.20. On the dimension of training, there was no difference between the publicly operated prisons and the Marana facility operated by MTC.

Despite the mix of evidence on performance -- including the fact that Marana did not score as highly as some state-run facilities, that some kinds of infrequently occurring events transpired at some of the fifteen state facilities but not at Marana (e.g., litigation), and the problematic audit review -- Thomas nonetheless concluded that, on balance, a superior ranking "must" be assigned to Marana.

Thomas was faced with a host of methodological problems, some of which may have been insurmountable. Nonetheless, an evaluation was mandated before the contract could be renewed, and as Thomas correctly noted, the conditions of policy reviews seldom meet the pristine conditions of laboratory research. In this context, let us review then how this research effort fulfills the conditions of sound comparative research.

First, the review seemed to use both performance and audit data, relying most heavily upon performance data. The audit data came from the normal audit cycle of the Arizona Department of Corrections. As such, the audit data are suspect as Thomas implied in his analysis. Unlike the audits performed as part of the Tennessee evaluation (Thomas 1997a: 73), where the protocols were developed by both public and private officials, and where audit teams were comprised of members from both the public and private sectors, the Arizona auditors were all Arizona Department of Corrections employees conducting a standard Department of Corrections audit. At the very least, this creates the appearance that bias may have been built into the audit of Marana. In our opinion, Thomas was correct to not emphasize the audit results in his analysis. However, we are not so sanguine about his uses of the performance data, as noted in the review above.

Second, it is abundantly clear that this evaluation does not provide an apples-to-apples comparison. Thomas himself was aware of this fact, as was the Arizona Department of Corrections when they contracted for the evaluation. It seems there was no comparable facility to Marana in the entire Arizona prison system. Still, this does not justify the strategy Thomas followed of comparing the Marana facility to the average of the other publicly operated facilities. If an average had been used, it should have been an average of facilities that most closely resembled Marana. Using Thomas' approach, the comparisons are not that informative. More informative are the comparisons made in the body of the text of Marana to individual state facilities, but these comparisons do not provide the basis for the findings presented in his 13 conclusions. For the most part, the 13 conclusions presented by Thomas are based upon comparisons of Marana to the averages for the 15 publicly operated facilities with the exception that Thomas does point to the facility-by-facility comparisons as conditioning the other conclusions (see Conclusions 4 and 13).

Third, the study suffers from being a one-point-in-time comparison. A problem not noted above, but which may be relevant, is the timing of the study. Generally, the Marana facility was in an activation phase for most of the course of the study, which probably had some influence upon the types of behaviors observed there. Whether patterns noted for this time period will hold as the facility matures is unknown.

Fourth, there was no attempt to document how MTC employed innovations to facilitate changes in quality (or cost for that matter). In part, this inattention may have resulted from the model of privatization followed in Arizona. Basically, the State of Arizona has taken the position that a private contractor should be given the opportunity to demonstrate it can out perform the state in running an Arizona prison according to Arizona Department of Corrections policy. Some states take the position that a private contractor should be given a great deal of flexibility and freedom in developing its own foundation of policy and procedures, while holding the contractor to some minimum standards such as those developed by ACA. While their approach may make some things easier for the Arizona Department of Corrections (conducting audits for one thing), it certainly provides little room for the private contractor to innovate. This means that differences in quality must arise from better performance by the private contractor's line staff and management.

Fifth, there was no attempt to assess whether the operation of the Marana facility by MTC has brought about system changes to the Arizona Department of Corrections.

Louisiana Evaluation

The State of Louisiana has funded an evaluation of its prison privatization efforts. Archambeault and Deis (1996) have produced a report comparing 3 institutions which have the same architectural design, accommodate approximately the same number of inmates, were built and activated at approximately the same time, are located in rural areas of the state, and house inmates of comparable security levels. Allen Correctional Center is operated by Wackenhut Corrections Corporation (WCC). Avoyelles Correctional Center is operated by the Louisiana Department of Public Safety and Corrections, and Winn Correctional Center is operated by the Corrections Corporation of America (CCA).

The primary purpose of the Archambeault and Deis evaluation was to compare the two privately operated and one publicly operated facilities on measures of cost and performance. The performance data used in this report came primarily from official records normally reported to the Secretary of Public Safety and Corrections by all adult correctional institutions within the state. The researchers made one field visit to each of the three sites. Based on the site visits and supporting documentation, Archambeault and Deis characterized the management philosophies existing at the time of the study. They rated the Wackenhut operated facility as most authoritarian, the publicly operated facility as intermediate, and the CCA operated facility as the least authoritarian of the three. At the time of the study, WCC employed 335 staff, the public facility 384 staff, and the CCA facility 340 staff. The CCA facility employed more women and minorities than the other 2 prisons, while the public facility employed predominantly white and male staff.

According to Archambeault and Deis, the Louisiana Department of Public Safety and Corrections Secretary, Richard Stalder, standardized the policies and procedures of the three prisons in 1992 and instituted a common reporting procedure that was used by the evaluators as their primary source of data. In a letter to Archambeault, written by Robert C. Thomas, the Principal

Management Auditor/Supervisor for the State of Washington's Joint Legislative Audit and Review Committee, Thomas expressed his concerns about the validity of the reporting mechanism (Thomas 1997b). In his letter, Thomas raised the possibility that "...different incentives can be at work in the private facilities than in the public facilities (p. 3)." Although we agree with this criticism, without further information, it is difficult to sort out the relationship between reporting incentives and the actual behavior underlying these reports. While private prisons may have an incentive to under report unfavorable incidents to bolster the impression that they are performing well, there is a counterbalancing incentive for private prisons to report all significant incidents as failure to report could provide grounds for contract termination. On the other hand, a public facility may want to over report incidents as an argument to receive more resources, unless the public facility is in "competition" with private sector providers of prison services.

Because it is difficult to disentangle accurate reporting from this subtle incentive structure, we assume for the present purposes that the reporting mechanism is a true reflection of underlying conduct. Nonetheless, we prefer that reporting mechanisms occur more as a by-product of institution operations than as an additional requirement. As an example of what we mean, consider two separate reporting mechanisms used by the Bureau of Prisons for representing serious inmate misconduct. One mechanism is similar to the one adopted by Louisiana. On a daily basis, institutions report any serious incident (e.g., fire, serious assault, disturbance) to both the Regional and Central Offices. There is a certain amount of discretion in what people choose to report. The second mechanism of reporting these incidents occurs as a by-product of the normal adjudication process that occurs in the Bureau of Prisons institutions. A serious assault will typically result in an administrative action culminating in an adjudication of the misconduct by a disciplinary hearing officer (assuming that the assailant is known). Whether or not there is a sustained finding (conviction), all of the procedures and actions will be recorded in an automated database of disciplinary hearings. The Bureau is able to cull aggregated information on disciplinary actions for any and all of its institutions from this individual level database. We have data demonstrating that this latter mechanism has much less reporting discretion than the former.

To establish comparability of the three institutions, Archambeault and Deis assessed information on the physical plant, its history of expansions, State-imposed policies and standards, comparability of ACA standards, and the number and ethnicity of inmates during the evaluation period. While acknowledging that a limitation of their study was that they lacked information on the characteristics of the inmate populations, the evaluators minimized this limitation by stating that an "ideal evaluation design" would include such data. We would characterize information on the characteristics of the inmate population as fundamental in a comparison of institution performance measures. Almost every institution performance measure used by Archambeault and Deis was a summary or aggregate indicator of individual performance data. Since it is well known that inmate behavior whether prosocial or antinormative is strongly correlated to criminal history, demographics (age, race, ethnicity), and other social and actuarial predictors, these background data are a sine qua non of valid institution performance comparisons. What may appear to be differences in institution performance may be nothing more than differences in the background

characteristics of inmates housed in the different institutions that predispose them toward more or less favorable behavior.

Over 200 measures were collected and analyzed by Archambeault and Deis. These measures covered issues about safety, risk, effectiveness, performance, and cost. The data covered several years (fiscal years 1992 through part of fiscal year 1995) and represented monthly occurrences of the phenomenon. Typically, the researchers would compute an average of the monthly data and use that average as the performance indicator. In some cases, the researchers compared averages for different periods of time when they thought changes in reporting or other artifactual problems might influence the data. Unfortunately, the researchers did not capitalize on the trend data to evaluate performance over time.

The performance measures included data on escapes, assaults on staff and inmates, assault outcomes (i.e., whether they involved serious injury), sex offenses, aggravated sex offenses, institutional disturbances, deaths due to violence, suicide, or illness, disciplinary actions, gunshots, grievances, drug tests, communicable diseases, inmate education and vocational training participation, GED's earned, basic literacy, college participation, and various indicia of medical care. Staffing data included use of sick and maternity leave, resignations, and grievances. Each performance measure was analyzed separately; however, scales of these measures were also constructed and analyzed.

As an example of how Archambeault and Deis evaluated the three institutions, consider the first performance measure—escapes from the institution. Over the study period, the public institution reported no escapes, the CCA-operated facility reported 5 escapes and the WCC-operated facility reported 3 escapes. Archambeault and Deis submitted the month-to- month data to an analysis of variance and contrasted the three average escape rates using a Scheffe post hoc comparison technique. Using these methods, there was no statistical difference among the average of the monthly escapes over the study period. The F- and Scheffe tests used by these researchers were probably inappropriate techniques to compare such rarely occurring events and since they were measuring population differences, not samples, the use of any statistical test to compare the averages may have been inappropriate. Even more important is the interpretation of the absolute differences in the number of escapes for the 3 institutions. Protecting the public is one of the most significant missions of a prison system and clearly the public institution was doing a much better job than either of the two private institutions. The researchers do acknowledge the public institution's superiority but also claimed that "each of the three prisons are fully meeting the obligation of protecting the public (p. 121)." From our point of view the two private prisons were deficient in this obligation.

In chapters V through X of their report, Archambeault and Deis analyzed the remainder of nearly 200 performance measures. This was clearly an ambitious assessment of the comparative quality of the three institutions. On some of the more important dimensions, data were also collected and reported on the four other adult correctional institutions in Louisiana: Hunt, Dixon, Angola, and Wade. Comparisons involving all 7 institutions were made primarily on serious misconduct such

as escapes, serious assaults on staff, inmate on inmate sex offenses, other serious inmate offenses, and institutional disturbances. While the three primary comparison sites had almost identical inmate population counts over the period of this study, the other four institutions used in some of their comparisons had widely discrepant population counts. It appears to us that Archambeault and Deis reported these performance measures without accounting for the large differences in the average monthly inmate populations of the other four comparison institutions. Angola had an average monthly inmate population almost 4 times as high as the 3 comparison institutions. Another institution, Wade, had an average monthly population almost 20 percent lower than the 3 comparison sites. The comparison of raw averages is meaningless given the huge disparity in the monthly inmate population counts.

Since these serious misconduct measures were important indicators and the raw data were available, we re-computed the performance measures by taking the data reported in Archambeault and Deis and dividing the average monthly counts by the average monthly inmate population then multiplying the result by 1,000. This results in a performance measure that is an average monthly rate per 1,000 inmates. A completely different picture emerges when you compare the raw counts, i.e., the average number of incidents versus the rates adjusted by the average monthly population. Table 1 represents the monthly counts, Table 2 the rates. Whereas Archambeault and Deis reported that the risk of assaults by inmates on staff resulting in serious injury is marginally higher at the public facility than the two privately operated facilities, Table 2 indicates that at least one other public facility had an equally low rate of such assaults. The data in Tables 1 and 2 represent information on staff and inmate safety. We are not confident that a statistical test is warranted, thus, for each performance indicator, we have color coded the best rate in blue, the second best rate in green, and the worst rate in red. It is clear that when the data are represented as counts, Dixon (public), and perhaps Allen (WCC) and Avoyelles (public), were the best performing institutions on these performance indicators. Angola (public) was the worst by far. Looking at Table 2, using the more appropriate rates, Dixon (public) was still the best, Hunt (public) perhaps the second best, and Angola (public) -- while still the worst -- did not look nearly as bad. It is not clear why the penitentiary at Angola should be included in any of these analyses, since by reputation, this facility houses the most hardened prisoners in the Louisiana system. Data on the background characteristics of these inmates would go a long way toward answering these issues of comparability.

We have also included other counts and rates in Tables 1 and 2, for which there is no information reported by Archambeault and Deis on the other public institutions, as well as information on total disciplinary actions and gunshots. We did not color code disciplinary actions and gunshots because, unlike Archambeault and Deis, we are not convinced that lower rates indicate better performance. Archambeault and Deis cite Clear and Cole (1997) who argue that high levels of disciplinary infractions indicate staff and inmates are intolerant of each other. We can think of other scenarios in which high levels of misconduct can be interpreted as a sign that management is strict about enforcing rules but fair in the disciplinary process. Alternatively, low levels of misconduct may indicate a lax environment, and tolerance of nuisance behaviors that invite more serious misconduct. Misconduct data can be very misleading unless we are knowledgeable of the

institutional context. Looking at Table 2, we can see that Angola, which had the worst record with respect to serious incidents, had the lowest overall misconduct rate in that time period. Dixon, which had the best record with respect to serious incidents, had a total disciplinary rate intermediate to the lowest and highest rates among the 7 institutions. If misconduct were related to serious incidents, we would expect institutions with the highest misconduct rate to have the highest serious incident rate. The data argue against any conclusion that low rates of misconduct indicate better performance.

The urinalysis "hit" rate was another important indicator of institution safety and security although Archambeault and Deis treat the indicator as a measure of health risk. The rate at which inmates are randomly detected using drugs is an indication of the extent to which an institution is able to control the importation and use of drugs. These data were only available on the 3 comparison institutions. The data showed that the public institution was much more likely to use urinalysis to test for drugs and that the random tests revealed that the public institution had far fewer inmates testing positive for drug use than either of the privately operated facilities. Overall, these data seem to indicate that each institution had certain safety and security deficiencies and each had certain strengths; however, the best performing institution was a publicly operated one during the period of this study while the worst was the notorious penitentiary at Angola. All of these conclusions should be tempered by the fact we have no basis for determining whether these differences resulted from institution management or merely from housing inmates with different propensities toward violence and other serious misconduct.

Other data were collected by Archambeault and Deis to indicate health risk. Information on communicable diseases, including HIV infection and tuberculosis, were analyzed. Archambeault and Deis used information on the incidence and prevalence of HIV and tuberculosis. They used various indicators of HIV and AIDS which depended on the level of seriousness of the infection and the year in which the data were recorded. For example, they separately assessed group I, group II, group III, group IV-A, group IV-B, group IV-C, group IV-D, group IV-E, and the number of inmates receiving AZT for fiscal years 1992-1993. In fiscal years 1993-1994, they categorized the infection into separate subgroups that depended on the T-cell count and whether the cases were characterized as category A, B, or C and levels 1,2, or 3. Similar measures were compiled on tuberculosis cases. The researchers also created a composite health risk of these measures and included the drug testing measures. This resulted in an index composed of 60 indicators.

They found that the WCC-operated facility had the highest medical risk score, the CCA-operated facility the second highest, and the public facility the lowest. We question the validity of this composite health risk predictor. Unless they could measure the quality of care delivered by the different institutions, it is difficult to credit or fault an institution for its level of health problems. Health problems can be related to the demographic characteristics of the inmate population and totally unrelated to the health care delivery system at the institution. The drug assessment did indicate the public institution had the lowest drug utilization rate and the highest use of random and total number of drug tests and the lowest percentage of inmates testing positive among the

random tests. This is evidence that the public institution was actively combating drug use at least partly through the use of testing.

In Chapter IX of their report, Archambeault and Deis assess the work environment of correctional personnel. Their first set of indicators examines the relationship between the number of positions allocated and the actual number of staff working on a daily basis. They found that the public institution had more positions allocated to custody but a lower proportion of those positions were used on a daily basis. In their comments, Archmbeault and Deis provide the explanation for this discrepancy. When the public facility opened, many of the personnel transferred from other state institutions. Employees with more tenure accrue more leave and therefore, more staff were needed to cover the same shifts. Archambeault and Deis did not have sufficient data to investigate this possibility.

Chapter X of their report examined the use of administrative remedy procedures by the inmates, indicators of education and vocational opportunities, inmates' medical duty status, and the number of inmates evaluated and transferred to pre-release programs and community correctional centers. The WCC-operated facility had the highest monthly total of administrative remedy complaints. The public and CCA-operated facilities were almost identical in those rates. The public facility was the least likely to accept a complaint.

The CCA-operated facility had the most complaints regarding medical care and quality of life. The WCC-operated facility had the most complaints regarding property, legal issues, rules, threats, communication, records, finances, institution programs, discipline, and classification. The public facility had the most complaints about discrimination and protection.

Data on program enrollment and completions in education and vocational training programs indicated that the CCA-operated facility was doing a better job in providing educational and vocational training to inmates than either the public or the WCC-operated facility. However, the authors noted that the public institution involved more inmates and volunteers in the education process, had more inmates enrolled who completed the basic literacy program, and had more inmates enrolled in college courses. Archambeault and Deis concluded that the CCA-operated facility was far more effective in its education performance than the WCC-operated facility or the public facility. This conclusion was partly based on efficiency ratings in which the CCA-operated facility had higher rates of completions on some indicators.

Finally, Archambeault and Deis collected data on the duty statuses for inmates and whether the institutions screened inmates for transfer and community rehabilitation and work centers. The CCA-operated facility had the most occurrences of screening and highest ratio of transfers to the community centers. The CCA-operated facility also had the highest ratio and most inmates on some form of limited duty status. In the absence of any additional contextual information, it is almost impossible to make any sense of the limited duty status data.

Archambeault and Deis concluded that the two private prisons outperformed the public institution on most of the performance measures, including critical incidents, safer working environment for staff, a safer environment for inmates, judicious use of disciplinary actions, more efficient use of security personnel, higher inmate program participation, and higher use of inmate transfer to community settings. The public institution was credited with outperforming the private institution on measures of escape, aggravated sex offenses, substance abuse, the breadth of education and vocational training in the number of inmates served, and the breadth of treatment, recreation, social services, and habilitative services to inmates.

As we have already noted, a re-analysis of the safety and security data using the information on all of the Louisiana institutions shows that the public facilities were the best and the worst. However, this conclusion and any other conclusion should be strongly tempered since Archambeault and Deis were unable to collect information on characteristics of the inmate population that could have been used to control for potential inmate population differences among the institutions. We suspect that the penitentiary at Angola probably houses the most hardened and violent prisoners incarcerated by the State and that there are structural reasons (both architectural and sociological) that make it a difficult prison to manage.

In Thomas' (1997b) letter (mentioned earlier), he was also critical of Archambeault and Deis' conclusion on the role of privatization for other jurisdictions, although as far as we can tell, that conclusion was misstated in the Thomas letter. Thomas wrote that Archambeault and Deis claimed, "Private prisons have a definite place in any state's total prison system (p. 3 of the Thomas letter)." The closest comment we can find in the Archambeault and Deis report is the statement "Privately operated prisons have a definite place in the planning of any state's total prison system (p. 573)." Thomas argued that the conclusion was unwarranted by the study and that a private alternative may not be in the best interests of the state. In fact, the Archambeault and Deis conclusion was more guarded and those authors went on to state that privatization of prison beds should be limited to ensure that the incentive to compete is not lost.

The intent of the Archambeault and Deis evaluation was strictly to compare the public versus the private operation of the facilities. If there is an innovation to be found, it might be the staffing patterns used by Corrections Corporation of America. The public facility used predominantly white (81.5 percent) males (76 percent). The CCA-operated prison used many more female staff (42 percent) and many more minority staff (50.3 percent). The WCC-operated facility was somewhere in between, using mostly white male staff (63 percent). Since staffing is one of the most important components of correctional service, the use of more women and minorities might be considered an innovation if it could be shown to be related to the successful management of the institution. If Archambeault and Deis did point to an innovation it would have been the management philosophy of the CCA-operated facility. They considered CCA's approach to be the least authoritative, involving staff in the organizational decision making and giving "employees a vested interest in the overall success of the prison organization (p. 66)."

It was difficult to conclude how or whether the Louisiana public correctional system had changed in any way in response to the privatization of its two facilities. The Secretary of Public Safety and Corrections did introduce a reporting system to monitor all of the institutions; however, this system might have been implemented in the absence of privatization.

New Mexico Evaluation

The discussion of the New Mexico evaluation is taken primarily from the report by Harer, Karacki, and Gaes (1995).

Charles Logan has published, "Well kept: Comparing quality of confinement in private and public prisons," as both a National Institute of Justice monograph and a condensed version in the *Journal of Criminal Law and Criminology* (Vol. 83, pp 577-613, 1992). Logan's comparison of private and public institutions is based on contrasting the operations of two women's prison in New Mexico and a Federal institution. Women prisoners in New Mexico were originally housed in a state facility which operated primarily as a diagnostic and orientation facility for men. To meet the needs of the female inmates, a private facility was built and operated by the Corrections Corporation of America (CCA) under contract to the state. Logan later collected a limited amount of data from a Federal women's facility to do a comparison of all three kinds of operations.

In both his monograph and paper, Logan first outlined a theoretical model, the Confinement model, which he used to form the basis for comparisons among the three institutions. He then proceeded to develop institution performance indicators (IPI's) which represented the various dimensions of his Confinement model. Logan's Confinement model is succinctly represented in his own words:

> The mission of a prison is to keep prisoners--to keep them in, keep them safe, keep them in line, keep them healthy, and keep them busy--and to do it with fairness, without undue suffering and as efficiently as possible. (Logan 1992: 580)

Thus, the dimensions which Logan used to compare institutions were security, safety, order, care, activity, justice, conditions, and management. We have little quarrel with Logan's conceptual framework, although we believe there are critical goals not adequately addressed by this model. In Logan's approach to corrections, inmate programs are merely activities to "keep them busy." But, as the mission statements of most modern correctional systems imply, rather than merely "to keep them busy," prison programs are intended to provide inmates with a positive influence in their lives, afford them the opportunity to improve their skills, and provide a socializing agent so that they come to accept the moral and legal norms of society.

One of the fundamental problems with Logan's study is that with only three institutions to compare, he was limited in the kinds of analyses that could reasonably be used. Furthermore, he

was really comparing the management of essentially the same New Mexico female inmate population over time by two different management groups (public versus private) housed in two different facilities. Almost as an afterthought, he contrasted this before/after longitudinal assessment to a population composed of imprisoned federal women. The appendices to Logan's NIJ monograph also include reports, written by two consultants, which described the state and private institutions and the events culminating in the transfer of female inmates from the New Mexico State prison to the privately run institution.

Logan used a large number of performance indicators which were quantitatively combined; however, the large number of measures used does not compensate for the very small sample under analysis.

Other problems with this study, however, arise from the ways in which Logan analyzed and interpreted the institution performance indicators that he used to compare the operations of the three facilities.

The Probable Bias in Institution Performance Indicators Based on Staff Perceptions

Almost all of the differences which favor the private facility over the two public facilities in the Logan study were based on staff perceptions as measured by the Prison Social Climate Survey (Saylor 1984) administered to staff at the three institutions. There are many reasons why staff surveys could have biased the results in favor of the private facility.

Clearly, staff at the private facility would be keenly aware that the success of their employment could depend, in part, on the responses they provided to the researcher. This most obvious, and potentially fatal flaw of the research, was discussed only superficially and then dismissed in the Logan report.

A second biasing influence was the fact that many of the staff selected for the private facility had worked in the public facility previously. It is likely that they would want to justify their decision to leave the state government to work in the private facility by favorably responding to the survey questions.

A third biasing influence in the measurement of these perceptions was the fact that the private facility was brand new, with many new staff as well as some experienced former state corrections staff. The facility built by the private corrections company was considered to be very well designed and staff were excited by working in this new environment. Yet, one wonders how their attitudes would have changed over time as the challenge of working in a new and exciting environment gives way to the daily routine of operating a correctional facility. We were so curious about the possible change in attitudes of staff over time that we asked the Corrections Department of New Mexico if we could re-administer the Prison Social Climate Survey at the private facility two years after the private operation began. However, management at the private facility would not allow this.

Another important biasing influence on staff perceptions was the low response rate among state and Federal employees. The private facility response rate was 72 percent while the two public facility response rates were less than 50 percent. Data from the Federal facility were collected in the very first year the Prison Social Climate Surveys were administered for the entire Bureau of Prisons. In subsequent administrations, the Bureau of Prisons has achieved no lower than a 72 percent response rate and as high as an 88 percent response rate from 1989 through 1994. Low response rates could be construed as indicating that only staff who had negative perceptions of the institutions were motivated to complete the Social Climate survey at the two public institutions.

The last important biasing influence in Logan's comparison across the three institutions and, perhaps the most damaging, is that Logan did not have a full complement of measures for each institution for computing an overall index of "quality." In particular, approximately 30 percent of the measures that were used in the comparison were missing for the Federal facility.

To exemplify this problem, suppose we are asked to rank order three employees on their overall performance based upon 10 performance indicators. For two employees, data are available on all ten measures; however, for the third employee, we only have information on 7 measures. Knowing this, should we still try to rank order all three employees on the overall performance index? Obviously not, yet this is exactly what Logan proceeded to do.

Interpreting Institution Performance Indicators

Another problem with the Logan study was what we believe to be the often questionable way in which Logan interpreted the institution performance indicators (IPI's). In all, Logan used 333 IPI's, most of which were based on staff perceptions measured by the Prison Social Climate Survey. For each of the 333 IPI's, Logan assigned a ++, +, =,-, or -- value to indicate whether an institution was much better, better, equal, or worse, or much worse than the comparison institution(s). It is noteworthy that a set of indicators and measures of correctional effectiveness derived from the professional judgment of multiple correctional experts and practitioners was available to Logan, namely the American Correctional Association's (ACA) standards. Logan chose to ignore the ACA measurement scheme, preferring his own instead. Logan himself admitted that "Interpreting each measurement item was often difficult." He also pointed out that many items could quite legitimately be interpreted and scored in many different ways. Yet despite his initial cautious remarks, he proceeded to make specific judgments, a priori, about whether a measurement item was positive or negative without consulting correctional experts. We found some of his judgments somewhat naive. A few examples should demonstrate this. We will focus here on only the relatively objective measures he culled from institution records for the institution security dimension.

In his section on security, Logan examined a number of objective indicators related to inmate contraband, drug use, misconduct, staffing patterns, and furloughs. Other than his inclusion of furloughs, we think these are valid issues related to institution security. Unfortunately, the way

these measures were interpreted by Logan makes little or no sense from any sound correctional management point of view.

Logan compared the state and privately run prisons by looking at the rate shakedowns (i.e., contraband searches) were occurring and the proportion of shakedowns in which contraband was found. He gave the state facility credit for performing shakedowns more often; however, he gave the privately run facility more credit for finding contraband a lower proportion of time. This latter judgment makes little sense. It may very well be that the state officials were doing a better job of finding contraband, were less tolerant of contraband, or both. These explanations would have led to an opposite conclusion from Logan's. Whereas Logan saw merit in finding less contraband, it is also reasonable to assume that finding more contraband is a reflection of thorough and well-trained security staff..

A second example involved the privately run facility, as well as the state and federal facility. Logan found that among inmates suspected of using drugs, fewer tested positive for opiates in the Federal facility than in either the state or privately run institution. Yet, Logan gave the Federal institution a demerit for conducting fewer tests among inmates suspected of drug use, while giving the privately run institution the highest rating for conducting the most urinalysis tests. The important issue here is whether inmates were using drugs in the institution. Conducting more tests might be construed as wasting money. How could the Federal institution be given credit for having the lowest opiate usage rate and simultaneously be judged inadequate in its drug testing policy while achieving a better result?

Another objective dimension reported by Logan was the rate at which inmates committed significant misconduct incidents during the 6-month period of the study. This is an example where Logan used his judgment, rather than conduct a statistical test. He found that the privately run prison which had a 0 rate of significant incidents was judged better than the federal prison which had a rate of .01 significant incidents in a 6-month period. These rates were not statistically different from each other, yet in Logan's judgment, the privately run facility performed better on this measurement item. Since there is so much reporting discretion in these kinds of incidents, we are not sure it is a fair assessment to conclude that the privately operated facility had out-performed the publicly operated facility when the rates for both facilities were so low.

In his analysis of institution security, Logan evaluated furlough rates as well. He claimed that furloughs indicated the extent to which prison administrators exposed the community to dangerous criminals. He reasoned that the higher the exposure (i.e., more furloughs), the lower the rating for the institution. Many correctional administrators look favorably at furloughs as a way of easing an inmate's transition back into society. Most correctional systems use furloughs on a very limited basis for inmates that are already close to their release date and who are thoroughly screened to minimize the risk to a community. A study conducted by Harer (1994) demonstrated that prison furloughs are one of the best predictors of an inmate's post-release success, when controlling for other risk predictors. Inmates who receive furloughs for the purpose of

establishing community ties before release are less likely to be re-arrested or have their supervision revoked for the first three years after their release.

The final objective measure Logan used in the security section of his paper was the custody staffing levels of the different institutions. The Federal prison received 2 demerits (--), compared to the state and privately run institutions. The private, state, and Federal prisons had inmate-to-staff ratios of 3.1, 2.3, and 8.1 to one, respectively. How is it that the Federal institution, which had the lowest urinalysis rate, and an extremely low incident rate, could be judged unfavorably because it used fewer custody staff, by far, than the other two institutions, yet still managed to operate a safe and humane environment? A related problem with this interpretation is Logan's failure to understand the management context. The Bureau of Prisons considers all of its staff to be correctional officers first. Thus, teachers and vocational training instructors have both responsibilities as instructors and custodial staff. Under this model, if safety and security is still maintained, why would you debit an institution? The real issue here is whether a performance indicator is an outcome or a process measure. In the case of security, the primary outcomes are those that measure whether inmates and staff are at risk to be assaulted or harmed. Other measures, such as staff to inmate ratios, shakedowns, and even furloughs are process measures that should be regarded as related to outcomes, but not as outcomes themselves.

The bottom line on the comparison between the private and the Federal facilities was that on objective dimensions, the Federal facility seemed to perform better. Since we regard the perceptual measures as likely biased, comparisons based on these measures strike us as highly questionable.

Although Logan has done a remarkable job conceptualizing the dimensions of confinement, we strongly believe that his lack of institutional experience limited his ability to compare the correctional institutions on specific performance indicators, especially since he relied on his own judgment about those performance indicators. His lack of a fundamental understanding about how prisons operate and how they are managed limits the usefulness of "Well Kept."

Putting the Public-Private Comparison in Perspective

In considering the history that led to the transfer of all female inmates from WNMAC, which served as the publicly-operated facility in this analysis, to a new CCA facility, which stood as the privately-operated facility, our impression is that we would have been surprised had the new facility not been an perceived as an improvement over the past by those staff who were surveyed for the purpose of this study.

First of all, as DiIulio commented in an appended section of the report, before the CCA facility opened, "New Mexico's women prisoners could be described as correctional 'orphans' who were housed in 'a make-shift' wing of Western New Mexico Correctional Facility, a large high-security institution for males." He further added that, "Before that, the women prisoners experienced frequent moves between different facilities, none of which was equipped to meet the needs of

female inmates." DiIulio's comments seem to indicate that the conditions of confinement for the female offenders were not particularly favorable.

Moreover, when it is considered that the State correctional system was under court order to improve conditions (WNMAC in June 1988 was found to be in non-compliance in over one-third (35.7 percent) of the 42 compliance provisions audited), it certainly appears that problems existed in the operation of WNMAC. Our sense is that while State of New Mexico prison authorities attempted to provide for the female offender population at WNMAC, there were serious limits as to how successful this effort could be. This is suggested in the comments of Charles W. Thomas, a correctional consultant, who, in his assessment of WNMAC in October 1988, was very positive about institutional staff but was highly critical about institutional design features and the security problems these design flaws created. Indeed, our assumption is that the contract with CCA to operate a new female facility was intended, in part at least, to overcome problems which existed at WNMAC.

The point is that WNMAC was not just any State-operated facility for female offenders, but was instead a facility with major inadequacies, and CCA, far from being just another privately-operated female facility, was intended to replace WNMAC and presumably in the process to overcome the inadequacies of WNMAC. Under these circumstances, could CCA be anything but better?

Other Methodological Problems

In this last section, we list other methodological problems with the Logan study.

- Logan gave equal weight to each of his quality dimensions and sub-dimensions. Thus, a rating on security was considered just as important as a rating on activity. Most correctional experts consider security and safety to be the primary objectives of sound prison practices and would not rate all dimensions equivalently.
- Logan gave equal weight to each of his empirical measures, for example, the serious assault rate had no more weight as an index of "OVERALL" prison quality than how often inmates used the recreational facilities.
- He made no attempt to show if, and by how much, the subjective measures predicted, or were associated with, the objective measures.
- He ignored the magnitude of differences in item scores between institutions, forcing quantitative (interval scale) differences between institutions into a tripartite (+, -, and =) scale, while often making conceptually questionable decisions about whether high or low on the item score means "+". He then combined and re-quantified the tripartite difference measures using a conceptual method of scoring similar to ice hockey. We question the adequacy of this measurement process. A quantitative method could have been used.
- Although he purported to be looking only at three all-female institutions, Logan, without acknowledging it, introduced survey response bias by including responses by staff at the

New Mexico State prison who worked with male inmates when making comparisons of staff Climate survey responses across institutions.

- Inmate survey data showed that the public New Mexico State facility outperformed the private facility in every dimension except "activity" (GAO report p. 28). This was contrary to the results based on staff perceptions. Why was there this discrepancy between inmate and staff perceptions? Are we to discount inmate perceptions based upon some underlying vested interest? Or perhaps the greater vested interest lies with the staff who had a financial stake in the success of the evaluation.

Although we find Logan's conceptualization of a theoretical framework from which to compare institutions appealing, for the reasons given above his attempt to evaluate the relative merits of public and private facilities falls far short of a rigorous or conclusive analysis. There was no indication in the report whether the State of New Mexico had changed its policy or procedures in response to the privatization of its female population. Furthermore, there is no indication in the report that there had been any innovation on the part of CCA in its management of the women prisoners.

Florida Evaluation

A recent study by Lanza-Kaduce and Parker (1998) compared the recidivism rates of inmates released from prisons operated by the Florida Department of Corrections to those inmates released from a prison operated by the Corrections Corporation of America and a prison operated by Wackenhut Corrections Corporation. The at-risk release period for the offenders was 12 months and recidivism was defined either as a rearrest, a new offense, a new commitment, a technical violation, or a summary measure based on the first four indicators. Inmates from public facilities were matched with inmates from private facilities on the basis of classification (minimum, medium), offense category, race, prior incarcerations (0, 1, 2, or more), and age (25 or less, age 26 to 30, age 31 to 35, age 36 to 40, and age 41 or older). Of 300 releases from private prisons, only 196 matched pairs could be found. In fact, the researchers had to relax their categories to find even 196 matched pairs. The researchers also identified whether an inmate had participated in educational, vocational, substance abuse, behavioral education, or pre-release training. A seriousness of recidivism score was constructed based on the nature of the recidivism. The score ranged from 0 to 5. Zero indicated no recidivism, 1 indicated a technical violation, 2, a misdemeanor, 3, a drug or weapon possession offense, 4, a property offense, and 5, a violent or personal offense.

Lanza-Kaduce and Parker (1998) reported the following results: (1) private releasees had a lower recidivism percentage on every one of the 5 indicators except technical violations. The overall measure indicated a recidivism percentage of 17 percent for the inmates released from private prisons and 24 percent for inmates released from the public institutions. For the overall measure, this translated into a recidivism rate of 172 per 1,000 released inmates for the private institutions and 237 for the public facilities. The recidivism scale measuring seriousness indicated that public sector releasees were more likely to commit drug/weapon possession offenses, property offenses,

and violent offenses. The mean level of seriousness on this 0 to 5 point scale was 3.43 for the public sector releasees and 2.32 for the private sector releasees.

Lanza-Kaduce and Parker (1998) also reported on the relative recidivism rates among releasees from the privately-operated facilities who successfully completed one or more of the programs previously listed against those who failed, dropped out, refused to participate, or were removed. Among the successful completers, 15 percent recidivated, while 40 percent of the noncompleters recidivated. We find this final result fraught with issues regarding selection bias. One can draw no conclusions about program effectiveness when you compare dropouts with those who complete a program. Under these circumstances, it is impossible to disentangle program effects from the inmate's underlying motivation to succeed (Pelissier, Rhodes, Gaes, Camp, O'Neil, Wallace, and Saylor 1998).

A critical assessment of this study has been written by the Florida Department of Corrections, Bureau of Research and Data Analysis (1998). The analysts writing this report noted four significant problems with the Lanza-Kaduce and Parker study. The first problem focuses on the putative equivalency of the private and matched public inmate releasees. The Bureau of Research and Data Analysis (BRDA) paper notes that while Lanza-Kaduce and Parker selected inmates who were minimum or medium custody, this is not the same as using the level of custody which was apparently higher, on average, for the inmates released from the public facility. Furthermore, publicly released inmates were more likely to have longer sentences, another indicator of the seriousness of the instant offense. Publicly imprisoned inmates served, on average, a much longer time than the privately held prisoners and inmates released from a public facility were more likely to have a term of supervision. This latter difference is quite important. As the BRDA researchers point out, the differences in supervision indicate that the inmates released from public institutions were more serious offenders, who were more closely monitored, thus magnifying re-arrest or other recidivism measures. This makes the use of technical violations inappropriate. If an offender is not under supervision, he or she cannot be technically violated.

The BRDA researchers also found that offenders in the private sample had, on average, a less serious previous record. This was based on the number of prior incarcerations. Finally, the BRDA researchers were critical of the broad age categories used by Lanza-Kaduce and Parker. As the BRDA group noted, age is the most significant determinant of recidivism and either an exact match should have been used or a multivariate analysis controlling for age and some of these other variables should have been conducted.

A second, even more serious problem in the Lanza-Kaduce and Parker analysis is that 35 percent of the inmates included in the private sample had also spent a significant amount of time in a public facility. It would be impossible to disentangle the effect of the private "dose" from the public "dose." This might suggest a research design in which one compared exclusively private, exclusively public, and mixed public-private incarceration. But even this might be meaningless unless we can have assurances that the decision to select or place inmates into these facilities is

not somehow entangled with their propensity to recidivate -- the problem of selection bias at a broader level.

As a third criticism, the BRDA researchers also criticized Lanza-Kaduce and Parker for using relatively small sample sizes. However, we would argue, if all of the other problems of this study could be addressed, the sample size was probably sufficient. A fourth, and more serious error, was the way in which Lanza-Kaduce and Parker procedurally measured recidivism. According to the BRDA group which had the original data, Lanza-Kaduce and Parker evaluated the recidivism of inmates released from private facilities in the period June 1, 1996, to September 30, 1996. The period for the inmates released from public facilities was January 1, 1996, to September 30, 1996. As we noted before, recidivism was assessed from the day of release until 12 months had been reached. Because there is a lag between the occurrence of a recidivism event and the recording of that event into the automated records, the recidivism differences reported by Lanza-Kaduce and Parker may be an artifact of the recording process. The recidivism data were gathered in November 1997, thus the publicly released inmates had, at most, a 23-month release period, while the privately released inmates had, at most, an 18-month release period. Depending on how long the lag is between the event and the recording of the event, this discrepancy between public and private release periods could seriously bias the results in favor of the private facility.

While this particular study of the relative differences in recidivism among privately and publicly incarcerated inmates had serious errors, we are skeptical that any such study can circumvent the problems associated with matching inmates and precluding selection bias. Aside from these methodological problems, what are the theoretical implications of such a contrast? On what theoretical basis would we expect privately and publicly operated prisons to be different in ways that would affect recidivism? If the issues revolve around programming, then it is certainly possible to evaluate inmate programs recognizing the same methodological problems with matching and selection bias. However, the public sector can also develop and deliver programs. In fact, many programs delivered in public prisons are the result of a contractual arrangement with a private provider. Finally, even if we could develop a satisfactory design to compare the recidivism rates of publicly and privately operated prisons, we would want to know what it is about the nature of operations at either the public or private facility that reduces criminality. Knowing this, we would export that knowledge to all of our prisons.

Summary of Existing Studies

For the most part, those who have evaluated private corrections in comparison to public corrections have concluded that the private correctional facilities performed as well or better than the public institutions. However, in our assessment of these evaluations, we find that most of these studies are fundamentally flawed, and we generally agree with the 1996 GAO report that there is “little information that is widely applicable to various correctional settings (p. 11).” We think this conclusion is still warranted despite the two recent evaluations conducted in Louisiana (Archambeault and Deis 1996) and Arizona (Thomas 1997a), and the recidivism study conducted by Lanza-Kaduce and Parker (1998).

In our opinion, the strongest of the existing studies are the Tennessee evaluation and the Washington State review. The Tennessee evaluation found that Corrections Corporation of America was running a prison on par with the two new facilities operated by the Tennessee Department of Corrections. The review conducted by Washington State noted that while it would be hard to generalize the findings to Washington (and, by implication, other states), it does appear that the experiences with privatization in Tennessee, Louisiana, and Florida have been positive. Even in these studies, though, there are serious shortcomings in the analyses (Thomas et al., 1996).

The most significant problem with all of these studies is that they fail to develop a coherent model of institution performance in terms of cost and quality of operations. Such a model would include the structure of the relationship between process and outcome measures. The model would also make explicit those factors that must be controlled to make institutional comparisons meaningful (Camp, Saylor and Harer 1997; Camp, Saylor and Wright 1998; Office of Research and Evaluation 1998; Saylor 1996). In this review, we have criticized researchers either for not using statistical adjustments or for incorrectly using univariate statistics. In most cases, it seems to us that researchers are inappropriately using univariate statistics to infer population differences when, in fact, they are using population data. We also were critical of Logan for not using statistics to assess the degree to which the private and public institutions were different. We think descriptive statistics could help in clarifying the strength of the differences between institutions, but this must be done in conjunction with a model that allows us to understand the relationship between outcome and process variables while simultaneously controlling for the important substantive differences among the institutions.

In Table 3, we summarize some of the other characteristics and failures of these studies. Most of the studies do not use a variety of different measurement approaches; fail to study equivalent inmate populations or have insufficient information on the comparability of the offenders; use inappropriate or no statistics; and, use a single point in time, rather than a longitudinal assessment. Most also fail to explain the nature of private innovation, the impact of privatization on the entire system, or how innovation affects performance in terms of cost and quality of operations.

Practically all of the evaluation research literature that has been produced on privatization has been designed to compare the relative performance of the public or private operation of a prison. The issue has been framed as a competition and the scorecard has been based on cost and quality. Although this will continue to be an important issue in the future, there are other fundamental ways of framing the research questions. A second, yet complementary approach, is to ask the following two questions: How does privatization change the provision of correctional services, especially in terms of changing operations in public sector prisons, even in public systems that are generally considered to be well run and accountable to the public interest? How does public sector management of prisons influence the operations of privately managed prisons within its jurisdiction? The ways in which these systemic changes take place depend on the approach to privatization each jurisdiction takes.

Since the majority of experience in managing inmates comes from the public sector, the private sector must begin from that knowledge base. Indeed, there has been a great deal of public sector innovation in corrections, some of it borrowed from private sector operations in other industries. Unit management, objective classification of inmates, strategic planning, and the concept of direct supervision all preceded the introduction of private sector management. There is no evidence to contradict the assertion that basic management philosophy, technology, and correctional expertise have been transferred to the private sector from the public sector. Often, there is a direct transfer of personnel and policies. The question, then, is how does the private sector add value to prison operations. One can even take a broad view of this issue and consider the increased flexibility of a system that might use privatization to alleviate crowding or handle special needs populations.

The usual response is that market pressures force the private sector into a more efficient use of resources. In particular, the market supposedly creates incentive for efficiencies in two general areas. First, labor is more efficiently utilized in the private sector. This is important because labor costs typically account for 65-70 percent of the operational costs of a prison. Second, there are efficiencies realized from more flexible purchasing practices.

However, despite the claims about cost savings and increased value, in reality there have been no empirical studies documenting innovations in the private sector in the use of labor or the purchasing of goods and services. What is needed are case studies that document the innovations developed by the private sector that produce added value in the use of labor or in purchasing practices (Camp 1998). We also need to document how the labor use and purchasing practices of public sector prisons change as a result of the dynamic interplay between public and private sectors.

It appears to us that the private sector's approach to corrections has been to build upon correctional practices that already exist in well-run public prisons. The private sector does not appear to argue that they run prisons in a dramatically different way based on different philosophies of managing inmates. However, there has been little attention given to documenting the private sector approach to innovation or to the impact of competition from the private sector on the practices of the public sector.

A corollary to these systemic questions is the issue of whether the private sector is delivering too little or the public sector is delivering too much. Does the private sector save on costs by providing fewer essential services to inmates than the public sector? If so, what are the short- and long-term consequences of this lack of services? Is there a possibility that public sector prisons provide "too much" quality to inmates? That is, do they provide services to inmates that are not as readily available to some law-abiding members of society (usually indigent citizens)? While most correctional administrators (public and private) agree that U.S. prisons should meet American Correctional Association (ACA) accreditation standards at a minimum, there is probably much less agreement as to how far above the bar set by ACA standards those prisons should operate to perform effectively. How much education is excessive? Is a community standard the appropriate standard for medical care? Should we provide inmates with job training

when other poor, law-abiding civilians may have less access to such training? Privatization brings these paradoxical public policy issues into sharper focus.

Quite similar to these arguments is Harding's (1997) contention that the next generation of privatization research should look for evidence of system-wide changes. Some evidence of such changes can be found in Vagg's (1994) description of the introduction of privatization into the English penal system. Vagg, who reserves judgment on the merits of privatization, notes that the introduction of the first private remand[2] prison in England—The Wolds, which opened in 1992—may have improved accountability for how inmates are treated in public sector prisons as well. As he notes (Vagg 1994: 307), "... private prisons have the potential to offer improved prison regimes; and ironically, in England, they were a key factor in persuading the administration that standards were necessary, if only for the purpose of monitoring contractual compliance ..." According to Vagg, the English government had been reluctant to establish prison standards such as ACA standards which are used in the U.S. With the need to oversee the Wolds contract, performance indicators were specified that the contractor, Group 4 Remand Services, Ltd., had to meet. Standards were established for security; health, safety, and hygiene; reception, registration, and discharge; regime activities (such as the grievance procedure); inmate services; and other prison functions. The standards went so far as to specify the amount of time that prisoners should spend out of cell, a key point as there was public concern about unsentenced inmates being locked in their cells for extended periods in older remand centers under public control (see James, Bottomley, Liebling, and Clare 1997). **This explication of a system change introduced by adding privately operated beds is not typical in the evaluation literature on privatization**. Similar efforts must be undertaken in the United States.

There are well over 100 adult correctional institutions currently being operated by private corrections companies. Yet we have analyses on only a handful. Even if these studies were rigorous and methodologically sound, the private institutions captured in these analyses may, or may not, represent the performance of the industry as a whole.

In the next section of this critique, we propose a model designed to address many of the problems we have noted throughout this paper.

Outline of How the Taft Evaluation Meets the Criteria of a Sound Evaluation

The proposed evaluation of the experiences of the Federal Bureau of Prisons with the private Federal prison operated by Wackenhut Corrections Corporation in Taft, California addresses many of the criticisms of existing evaluations of privatization. A complete discussion of the proposed evaluation can be found elsewhere (Office of Research and Evaluation, 1998). The discussion proceeds by addressing each of the areas covered in the summary table of existing quality evaluations.

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[2] A remand prison in the United Kingdom functions the same as a jail in the United States criminal justice system.

System Impact: The system impact of the private operation of the Taft prison upon other operations in the Federal Bureau of Prisons is addressed by the modeling approach that will be used in the evaluation. At about the same time that the Taft prison was built, three other low security institutions were built by the Federal Bureau of Prisons in Yazoo City, Mississippi, Elkton, Ohio, and Forrest City, Arkansas. These three institutions are the institutions against which Taft will be compared. Taft and two of the comparison institutions also have minimum-security camps as part of the facility. In this discussion, though, we focus primarily upon the main facilities that house the low-security inmates.

In order to ensure that the institutions are compared on measures that are adjusted for features that are unrelated to institutional performance, it is necessary to develop models of the outcome measures that follow the procedures suggested by Saylor (1996) and Camp and colleagues (Camp, Saylor and Harer 1997; Camp, Saylor and Wright 1998). In essence, this means that both Taft and the three BOP comparison institutions will be evaluated against the performance of all of the other low security institutions in the BOP. As such, it will be possible to see how outcome measures at the Taft institution, the three comparison institutions, and the other low security BOP institutions change over the 5 years of the evaluation. This should provide information about how BOP operations change in response to the experience of having a private-sector institution as part of the BOP.

Innovation: As has been noted previously, innovation is touted as one of the reasons that private-sector companies can operate prisons more efficiently than the public sector without sacrificing the quality of services provided to inmates and the public. However, descriptions of how private-sector operators actually "do" corrections differently are usually missing (Camp 1998). To capture this component in the Taft evaluation, a full-time, on-site researcher has been placed at Taft. It is the role of this researcher to document the more qualitative aspects of how Wackenhut operates differently than the BOP. In addition, by examining organizational charts and work patterns, a close examination of the use of staff by Wackenhut and the BOP is planned.

Measures: The evaluation of Taft will use many different sources of information. There will be an audit/compliance component. All of the institutions, Taft as well as the BOP comparison institutions, are subject to ACA accreditation during the study period. In addition, there are plans to make use of periodic reviews conducted by the BOP. The Office of Research and Evaluation also plans to gather information through the annual survey of staff. Taft will participate in the staff survey, the Prison Social Climate Survey, as do all other BOP correctional facilities. A corresponding inmate survey of the social climate will also be administered at Taft and the comparison institutions. The inmate survey of the social climate is conducted on an "as needed" basis unlike the staff survey which has been conducted every year since 1988. Official records will comprise an integral part of the evaluation data. For example, Wackenhut uses the same disciplinary process as the Federal Bureau of Prisons and enters the disciplinary data into the same centralized database used by all BOP correctional facilities. Finally, numerous and periodic site visits to Taft and the comparison institutions are already, and will continue to be, part of the data collection effort for the evaluation.

Points in Time: As has been mentioned, the time frame for the evaluation is a 5 year time period. Therefore, the study is less likely to be influenced by atypical performance by any of the institutions over a relatively short period of time.

Equivalent Facilities: The Taft facility, as well as the three formal comparison institutions, were all built on an almost identical architectural plan at about the same time. While the wardens at all four facilities have been free to enhance the physical plant, there have not been any major renovations such as the construction of new buildings or the relocation of security fences at any of the four study facilities.

Equivalent Inmates: All of the study institutions house low-security inmates as defined by the Federal Bureau of Prisons classification system. None of the institutions have units for special needs inmates, such as units for those with severe medical or psychological problems or residential drug-treatment programs. Each of the institutions receives inmates as proscribed by BOP policy. There is no attempt to send specific types of inmates to any of the institutions. Nonetheless, assignment of inmates to the institutions is not random. For example, Taft is located near Los Angeles. Taft receives a large number of Hispanic inmates because of the BOP policy of locating inmates near their point of release when this does not conflict with other BOP management concerns. Any discrepancy between the institutions in the characteristics of the inmates, though, will be addressed in statistical models used to generate the comparison measures.

Model Approach: Statistical models will be utilized that are appropriate for the different types of data collected as part of the Taft evaluation. For example, Saylor (1996) has demonstrated how residuals from regression models can be utilized to assess whether institutions are performing better, worse, or the same as expected on measures of inmate per capita cost and staff perceptions of crowding. Camp and colleagues (Camp, Saylor and Harer 1997; Camp, Saylor and Wright 1998) have demonstrated how hierarchical linear models can be used to assess institution influences on measures obtained from staff surveys, such as organizational commitment or evaluations of institutional operations. While the details of the models employed in the respective studies are beyond the scope of this discussion, the use of the measures derived is quite straight-forward. With all of the models used in the analyses, the end result is the ability to evaluate how institutions perform relative to other institutions, *after* controlling for factors that are known to be unrelated to management performance. As an example, consider evaluations of institutional operations. Experienced and inexperienced staff at the same institution differ in the evaluations that they provide of institutional operations. If we compare two institutions for “typical” staff perceptions of institutional operations, we would certainly want to control for any differences in the institutions in the proportions of experienced and inexperienced staff providing the evaluations.

Statistical Approach: Most of the statistics employed in the Taft evaluation will be used to statistically adjust comparison measures. For the most part, the emphasis is not upon making inferences to some population of prisons. For the most part, we are dealing with the population of

low-security, Federal prisons. There will be some use of inferential statistics when the data come from samples of staff or inmates at the respective institutions.

Type of Facility: All of the institutions in the Taft evaluation house only adult offenders.

Security Level: All of the institutions are designed to house low-security inmates. For the most part, that is the type of inmate that is housed at the facilities.

Gender of Inmates: All of the inmates are male.

Concluding Remarks

Most evaluations of the respective strengths and weaknesses of public and private prisons have not relied upon strong theory to guide the evaluations. In the Taft evaluation, the theory of what constitutes a "good" prison as outlined by academics such as Charles Logan (Logan 1990) is supplemented with the collective practical knowledge of practitioners in the Federal Bureau of Prisons. Management at the Bureau have developed a performance measurement system called the Executive Staff Management Indicators (ESMI) module. ESMI is organized around six goals. Within each goal, vital functions that support the achievement of those goals are outlined. The organization of these performance measures is based upon the collective wisdom and years of corrections experience reflected in the current and past compositions of the executive management staff at the BOP.

This theoretical approach guides the choice of measures to evaluate the performance of Taft and the three comparison BOP institutions. The data used in the evaluation will come from multiple sources. Therefore it will be possible in some instances to test for consistency in conclusions suggested by reliance upon different sources of information. The data itself will be adjusted by statistical models to control for differences between the institutions that are not related to performance. This information, in turn, will be supplemented with an examination of organizational innovations in correctional practices at Taft.

The proposed evaluation of Taft avoids some of the more obvious problems that have plagued existing evaluations of privatized prisons. The proposed evaluation does not, however, circumvent all problems. For example, the evaluation is still for only one jurisdiction, the U.S. Federal Government, for one private company, Wackenhut, and for only low- and minimum-security inmates. Likewise, all of the inmates are male. The study does, we think, point the way for collecting systematic evidence about the types of changes privatization produces in the operations of public systems, how private firms innovate in providing services to inmates, and whether public and private firms can provide comparable services to inmates given the constraints faced by the Federal Bureau of Prisons. To date, we have not generally found that this type of information is readily available in existing evaluations.

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Table 1. Average Monthly Counts							
	Institution Operated By: Wackenhut Corrections Corporation (WCC), Corrections Corporation of America (CCA), State of Louisiana (Public)						
	WCC	Public	CCA	Public	Public	Public	Public
Institution	Allen	Avoyelles	Winn	Hunt	Dixon	Angola	Wade
Mean Inmate Population	1206.9	1227.2	1214.9	1775.5	1367.4	4741.8	1021.9
Performance Measure							
escapes	3	0	5	5	4	6	1
assaults on staff with injury	1.78	1.06	2.26	1.64	1.31	24.11	1.33
assaults on staff/serious injury	0.0455	0.1389	0	0	0.139	0.278	0.556
assaults on staff/non-serious injury	1.73	0.917	2.261	1.639	1.167	24.08	1.278
Cat. I,II,III incidents	28	38.5	30	55.8	26.4	154.1	22.3
aggravated sex offenses	11.1	4.3	8.5	6.1	2	27.9	3.9
aggravated cat I sex offenses	2.023	2.028	1.217	2.861	1.056	7.222	1.611
aggravated class II sex offenses	9.114	2.222	7.283	3.251	0.9444	20.667	2.778
institutional disturbances	0.9555	4.5	4.457	17.556	1.444	26.694	1.694
major inst. disturbances	0.114	0.194	0.0455	0.0278	0	1.0556	0.0833
minor inst disturbances	0.841	4.306	4.413	17.556	1.444	24.694	1.694
assaults/inmate on inmate	13.455	26.278	17.421	28.083	18.417	67.778	14.083
assaults/serious injuries	0.136	1.056	0.304	0.1389	0.3043	0.5556	0.111
assaults/non-serious injuries	13.318	25.222	13.978	27.944	18.028	67.222	13.318
assaults/weapon	2.523	3.861	2.652	0.0833	0.1111	0.0556	0.0556
assaults/no weapon	10.932	22.417	11.63	19.778	16.417	38.639	11.778
assaults/weapon and serious injury	0.068	0.528	0.261				
assaults/weapon and no serious injury	2.455	3.333	2.391				
assaults/no weapon/serious injury	0.068	0.528	0.043				
assaults/no weapon/no serious injury	10.864	21.889	11.587				
total disciplinary actions	374.1	859.8	459.6	567.1	687.2	1009	1779
schedule A disciplinary actions	42.3	282.3	153.9	103.4	102.2	258.9	396.7
schedule B disciplinary actions	325.9	515.4	291.7	399.1	558.9	697.8	1274.1
monthly gunshots	0.25	2.25	0.152	0.9722	2.5833	7.222	1

Table 2. Average Monthly Rates / 1,000

	Institution Operated By: Wackenhut Corrections Corporation (WCC), Corrections Corporation of America (CCA), State of Louisiana (Public)						
	WCC	Public	CCA	Public	Public	Public	Public
Institution	Allen	Avoyelles	Winn	Hunt	Dixon	Angola	Wade
Mean Inmate Population	1206.9	1227.2	1214.9	1775.5	1367.4	4741.8	1021.9
Performance Measure							
escapes	2.4857	0	4.1156	2.8161	2.9253	1.2653	0.9786
assaults on staff with injury	1.4749	0.8638	1.8602	0.9237	0.958	5.0846	1.3015
assaults on staff/serious injury	0.0377	0.1132	0	0	0.1017	0.0586	0.5441
assaults on staff/non-serious injury	1.4334	0.7472	1.8611	0.9231	0.8534	5.0782	1.2506
Cat. I,II,III incidents	23.2	31.372	24.693	31.428	19.307	32.498	21.822
aggravated sex offenses	9.1971	3.5039	6.9965	3.4357	1.4626	5.8838	3.8164
aggravated cat I sex offenses	1.6762	1.6525	1.0017	1.6114	0.7723	1.5231	1.5765
aggravated class II sex offenses	7.5516	1.8106	5.9947	1.831	0.6907	4.3585	2.7185
institutional disturbances	0.7917	3.6669	3.6686	9.8879	1.056	5.6295	1.6577
major inst. disturbances	0.0945	0.1581	0.0375	0.0157	0	0.2226	0.0815
minor inst disturbances	0.6968	3.5088	3.6324	9.8879	1.056	5.2077	1.6577
assaults/inmate on inmate	11.148	21.413	14.339	15.817	13.469	14.294	13.781
assaults/serious injuries	0.1127	0.8605	0.2502	0.0782	0.2225	0.1172	0.1086
assaults/non-serious injuries	11.035	20.552	11.505	15.739	13.184	14.176	13.033
assaults/weapon	2.0905	3.1462	2.1829	0.0469	0.0812	0.0117	0.0544
assaults/no weapon	9.0579	18.267	9.5728	11.139	12.006	8.1486	11.526
assaults/weapon and serious injury	0.0563	0.4302	0.2148	0	0	0	0
assaults/weapon and no serious injury	2.0341	2.7159	1.9681	0	0	0	0
assaults/no weapon/serious injury	0.0563	0.4302	0.0354	0	0	0	0
assaults/no weapon/no serious injury	9.0016	17.837	9.5374	0	0	0	0
total disciplinary actions	309.97	700.62	378.3	319.4	502.56	212.79	1740.9
schedule A disciplinary actions	35.048	230.04	126.68	58.237	74.74	54.6	388.2
schedule B disciplinary actions	270.03	419.98	240.1	224.78	408.73	147.16	1246.8
monthly gunshots	0.2071	1.8334	0.1251	0.5476	1.8892	1.5231	0.9786