

The Prison Journal

<http://tpj.sagepub.com>

Comparing the Quality of Confinement and Cost-Effectiveness of Public Versus Private Prisons: What We Know, Why We Do Not Know More, and Where to Go from Here

Dina Perrone and Travis C. Pratt
The Prison Journal 2003; 83; 301
DOI: 10.1177/0032885503256329

The online version of this article can be found at:
<http://tpj.sagepub.com/cgi/content/abstract/83/3/301>

Published by:



<http://www.sagepublications.com>

On behalf of:

[Pennsylvania Prison Society](#)

Additional services and information for *The Prison Journal* can be found at:

Email Alerts: <http://tpj.sagepub.com/cgi/alerts>

Subscriptions: <http://tpj.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations <http://tpj.sagepub.com/cgi/content/refs/83/3/301>

COMPARING THE QUALITY OF CONFINEMENT AND COST- EFFECTIVENESS OF PUBLIC VERSUS PRIVATE PRISONS: WHAT WE KNOW, WHY WE DO NOT KNOW MORE, AND WHERE TO GO FROM HERE

DINA PERRONE
Rutgers University

TRAVIS C. PRATT
Washington State University

The movement to privatize correctional institutions has gained considerable momentum as the need to reduce the costs of incarceration to public agencies has become more critical. The empirical evidence regarding whether private prisons are more cost-effective and whether they provide a higher quality of confinement to inmates, however, is inconclusive. To help clarify this portion of the prison privatization debate, this article contains a systematic review of the evaluation literature comparing the costs and quality of confinement of public versus private prisons. In doing so, three issues are highlighted: (a) the conclusions that can be reached based on the existing literature, (b) the major methodological inconsistencies that have hindered researchers' ability to draw firm conclusions from the body of empirical studies thus far, and (c) the direction that future research in this area may take to advance a better understanding of the potential advantages and disadvantages of prison privatization.

Keywords: *prison privatization; cost comparisons; quality of confinement*

As of June 2001, there were a total of 154 private prisons in the United States (Texas houses almost 30% of them with 42 private facilities) and an additional 30 private prisons outside of the United States (Corrections Corporation of America [CCA], 2001). In all, these facilities have an approximate housing capacity of 142,000 inmates. As of June 30, 2000, there were 76,010 inmates (approximately 4% of the inmate population) held in privately operated prisons in the United States (Beck & Karberg, 2001). Cur-

THE PRISON JOURNAL, Vol. 83 No. 3, September 2003 301-322
DOI: 10.1177/0032885503256329
© 2003 Sage Publications

rently, there are 17 private firms—13 of which are United States-based—that operate adult jails and prisons (CCA, 2001). Wackenhut and CCA are the 2 largest companies, and both have “gone public”: as of August 2001, Wackenhut (New York Stock Exchange symbol = WHC) had shares at approximately U.S.\$13, and CCA shares (New York Stock Exchange symbol = CXW) were slightly higher at U.S.\$14.

In 2000, Wackenhut reported a U.S.\$135 million profit from their dealings in the corrections industry (Wackenhut, 2001). They own 33 facilities in the United States, including juvenile facilities and 2 Immigration and Naturalization Service facilities, as well as 20 facilities outside of the United States in Africa, Australia, Canada, the United Kingdom, and New Zealand (Wackenhut, 2001). CCA manages 65 facilities in 21 states, the District of Columbia, and Puerto Rico, with a total of more than 61,000 inmate beds. Accordingly, CCA reported U.S.\$238.3 million in consolidated revenue for fiscal year 2000 (CCA, 2001).

Why have policy makers turned to private companies to operate correctional facilities? As of 2000, the United States imprisoned more than 2 million people, with an incarceration rate of approximately 500 citizens per 100,000 in the population (Beck & Karberg, 2001). Prison facilities are filled to 20% over capacity (Van Slambrouck, 1998)—a fact that generally prompts correctional policy makers to highlight the need to build more prisons (DiIulio, 1991; McConville, 1987; Vardalis & Becker, 2000). Even so, expanding existing prison space has placed a large strain on already tight public budgets (Colson, 1989; Cox & Osterhoff, 1993). In 2000, the cost of confining state and local inmates in the United States reached an estimated U.S.\$43 billion a year (Schiraldi & Greene, 2002). To help alleviate some of this cost, policy makers have turned to private companies under the assumption that private agencies can construct and run prisons at a higher—or at least comparable—level of quality and at a cheaper cost than can the state.

For example, some scholars have argued that private companies can cut costs by negotiating item costs and purchasing in bulk, by eliminating overtime and employee benefits, and by reducing the red tape needed to accomplish simple tasks such as purchasing equipment and hiring/firing staff (Bristler, 1996; Logan, 1987; Steelman & Harms, 1986). Camp and Gaes (1998), however, argued that such cost-cutting mechanisms could be adopted by the state as well. Still others have contended that any cost savings attributable to privatization will be short term only, and that long-term costs are likely to exceed current levels of spending due to the need to keep a stable or growing inmate population to ensure profits (Anderson, Davoli, & Moriarty, 1985; Henig, 1995; Shichor, 1993; 1995). Often woven into this cost-effectiveness debate, similar disagreements within the academic community surround

questions of whether private prisons offer either comparable—or perhaps even better—quality of confinement conditions for inmates (e.g., compare Logan, 1990, 1992; Shichor, 1995).

Adding to the plurality of voices and positions on the correctional privatization issue, scholars have also debated the legal, philosophical, and ethical dimensions associated with turning over the task of managing prisons to the private sphere (Durham, 1989; Geis, Mobley, & Shichor, 1999; Lanza-Kaduce, Parker, & Thomas, 2000; Ogle, 1999; Reisig & Pratt, 2000; Sechrest & Shichor, 1996). Although we certainly do not wish to downplay the importance of these more normative issues, it is important to note that regardless of whether the most defensible legal-philosophical position dictates that policy makers *should not* have the authority to grant private agencies the power to punish, legislatures *are* already contracting correctional services to private companies at an increasing rate (Lilly & Deflem, 1996; Lilly & Knepper, 1993). Indeed, in 1990 the rated capacity of private prisons was 15,300. In September of 2001, that total rose to 142,521—an 832% increase in less than 10 years (Thomas, 2001). In addition, the number of inmates housed in privately operated prisons increased 9.1% in the 6 months from December 1999 to June 30, 2000. As if these figures were not telling enough on their own, further evidence of the recent trend toward correctional privatization is that in 1991, there were only 44 privately operated prisons (Shichor, 1995). In 1994, that number increased to 88, only to increase an additional 109% to 184 in 2000 (CCA, 2001).

Thus, given the rapid expansion of prison privatization, it is now critical to assess whether these facilities actually live up to their expectations (cost and quality) or if the state and the inmates are being cheated out of quality care at an affordable cost by turning over the power to punish to the private sphere. Although there is an abundance of studies attempting to address these questions, there has yet to be a systematic attempt to take a step back and “make sense” of this emerging body of literature (e.g., see Anderson et al., 1985; Bowditch & Everett, 1987; Winn, 1996; cf. Pratt & Maahs, 1999). Accordingly, this article attempts to uncover whether public or private prisons operate at a higher quality and/or at a cheaper cost by reviewing the empirical studies that have compared private and public prisons.

To do so, we collected every U.S. study that has been conducted on these issues through a systematic search through electronic databases (NCJRS and NCCD archives), along with academic journals,¹ edited volumes, and public/government reports.² After a discussion of the methodological issues surrounding the research, this article reviews the evidence addressing the quality of confinement and cost-effectiveness of public versus private prisons. Finally, prescriptions for future research are presented to help clarify the

unresolved issues in this area and to help give us a better understanding of the potential advantages and drawbacks of prison privatization.

QUALITY OF CONFINEMENT

In this section, key methodological issues will be discussed, followed by the findings from each of the studies comparing the quality of confinement between private and public prisons. The final section provides a summary of the relative efficacy of private prisons in terms of the quality of confinement.

METHODOLOGICAL ISSUES

Nine studies assess the relative quality of private versus public prisons. To compare the private and public facilities, the studies attempt to match the private and public facilities on certain criteria that could affect why one facility would outperform another on particular measures (see Table 1). For instance, the size (capacity) of the facility may affect the prison's performance on certain domains because a larger prison may have more disciplinary reports and more assaults simply because they have a greater number of inmates. Half of the studies evaluated were of similar maximum capacity levels (see Table 1).

Comparing prisons with similar custody levels is also important. For example, if the private prison were minimum security and the public prison medium security, it would be expected that the inmates in the minimum-security private facility were less dangerous than those in the medium-security public facility. Consequently, the private prison would have less disciplinary reports and less inmate assaults and would therefore appear to be safer. All of the studies compared similar custody levels with the exception of the Tennessee study (Drowota, 1995), where one of the public facilities had a higher percentage of minimum-classification inmates than did the other public and the private facility.

The age of the facility may also affect the quality of confinement comparisons. Those operating a new facility may not have the experience of the administrators of an older facility. Therefore, it may appear to be of a lesser quality simply because all of the necessary quirks have not had the chance to be smoothed out. With the exceptions of those conducted by Logan (1992, 1996), the Office of Program Policy Analysis and Government Accountability (OPPAGA) (1998), Thomas (1997), and Austin and Coventry (1999), most of the studies were of facilities of similar age.³ Thomas's study did not indicate the age difference of the private and public facilities—he merely stated that the private facility was newer. The private prison in Logan's stud-

TABLE 1: Key Methodological Characteristics of Studies Comparing Quality of Confinement Across Public and Private Prisons

<i>Study</i>	<i>Sample Size</i>	<i>Security Level</i>	<i>Maximum Capacity</i>	<i>Age of Facility</i>	<i>Significance Test</i>	<i>Data Collection</i>
Arizona, Thomas (1997)	16: 1 private, 15 public	Matched	No info.	Private newer	No	Records
Florida, OPPAGA (1998)	3: 2 private, 1 public	Matched	Public larger	Private newer	No	Site visits, records
Florida, OPPAGA (2000)	2: 1 private, 1 public	Matched	Private larger	One year difference	No	Surveys, records
Kentucky, Urban Institute (1989)	2: 1 private, 1 public	Matched	Public larger	No info.	Yes	Site visits, interviews, surveys, records
Louisiana, Archambeault & Deis (1996)	3: 2 private, 1 public	Matched	Matched	Matched	Yes	Surveys, records
New Mexico, Logan (1992, 1996)	3: 1 private, 2 public	Matched	Matched	Private newer	No	Surveys, records
Tennessee, Drowota (1995)	3: 1 private, 2 public	Matched	Matched	Not enough info.	No	Audits
Sellers (1989)	6: 3 private, 3 public	Matched	Matched	Matched	No	Site visits, interviews, records
Austin & Coventry (1999)	65 private all public	Matched	Public larger	Private newer	No	Survey

ies was only 6 months into operation when it was compared to the older public facilities. The private facilities compared in the Florida OPPAGA study opened in 1995, whereas their public counterpart opened in 1977. Approximately 90% of the private facilities in the Austin and Coventry survey were less than 10 years old, whereas only about 30% of the public facilities fell into that category.

Therefore, what we can conclude thus far about this body of literature is that often times, the private and public facilities were not properly matched on important characteristics; as such, various confounding factors could have influenced the results. For example, one facility may actually operate at a higher quality because its inmates are of a lower security level where fewer riots and escapes would be expected, or one facility in the comparison may be an older prison where the administrators have had greater experience operating with such a facility. Without controlling for such factors, the studies may have assessed only whether it was the age and/or security level of the prison that influenced its rating of "quality."

Another methodological limitation within these studies is that there has not been a systematic method of analyzing and comparing the quality of confinement across the facilities. Instead, studies follow the "laundry list" approach for assessing the overall quality of confinement that Camp and Gaes (1998) argued is seriously flawed because it does not demonstrate the objectivity of the measures or the processes that produce a higher quality outcome. Even so, Logan's (1992) method of assessing the quality of confinement seems to be the most widely accepted and most objectively measured in the field.⁴ His method groups the laundry list into seven domains: safety, order, care, activity, justice, conditions, and management. Although studies certainly overlap in terms of which domains are assessed, few studies analyze management (Archambeault & Deis, 1996; Logan, 1996; Urban Institute, 1989), and with the exception of Logan's (1992) study, no other study assesses the justice domain.⁵ Within each of the domains, not all of the studies provide information on the same measures. For example, where some studies indicate staffing adequacy and inmate deaths, other studies do not. Because of such methodological diversity, we chose specific objective measures commonly found in each of the studies to assess each of the quality domains.

To assess security, the number of escapes cited was used. Although this is a problematic measure (escapes are rare), Logan (1992) argued that it is the most "obvious indicator" (p. 582). The number of assaults and injuries on both inmates and staff were used to assess safety. For the order domain, the number of disciplinary actions and disturbances were compared. The number of inmates enrolled in or who completed institutional programs were

compared to assess activity. The Correctional Medical Authority review of the health care services provided was used to assess care. Measures of staff stress and burnout were compared to assess the management of the prison, and indications of a poorly kept prison were used to assess the conditions.

EMPIRICAL EVIDENCE

The results of the research addressing the quality of confinement are mixed. In some studies the private prison fared worse in the domain, whereas in others it outperformed the public prison (see Table 2). For example, in the conditions domain, Logan's (1992) New Mexico study shows the private prison to be in a better condition when compared to the public prison, whereas the Tennessee study (Drowota, 1995) shows the private facility to be in a worse condition. Furthermore, the Kentucky study (Urban Institute, 1989) shows that the private and public prisons were perceived to be in equally good condition.

In studies that compared two private prisons and one public prison, the findings were also equivocal. The management domain exemplifies this point. The Louisiana study (Archambeault & Deis, 1996) uses the Family Life and Medical Leave Act and sick leave hours as measures of staff burnout and stress. It finds that one of the private facilities in the study had the highest number of Family Medical Leave Act and sick leave hours used each month, whereas the other private facility had the fewest, and the public facility fell somewhere in between. On the other hand, the Kentucky study shows that the average number of sick days taken per month was fairly equal among the public and private facilities, with the private facilities being slightly higher. In contrast, the study of the New Mexico (Logan, 1996) private facility compares employee responses on questions regarding staff burnout and stress and finds that the private facility scored more positively than the public facility.

Similar inconsistencies were found in the activity domain. The private prisons serviced more inmates through programs in the Louisiana study, but fewer inmates in the Tennessee and the Kentucky studies. More inmates completed educational and vocational programs in the private facilities in the Florida (OPPAGA, 1998) study but completed less programs in the Kentucky study. The private facilities, however, did offer more programs in the Florida study, the Austin and Coventry (1999) study, and the Sellers (1989) study. Unfortunately, with the exception of the Austin and Coventry study, the degree to which the offered programs were utilized is unclear. The activity domain is further confounded by Thomas' (1997) study, which indicates that because the private facility in Arizona is under a regimented contract and is

TABLE 2: Comparisons of Quality of Confinement Outcome Measures Across Studies

<i>Quality Domain</i>	<i>Condition</i>	<i>Management</i>	<i>Activity</i>	<i>Care</i>	<i>Security</i>	<i>Safety</i>	<i>Order</i>
Arizona, Thomas (1997)	N/A	N/A	Inconclusive	N/A	Private	Equal/private	Equal
Florida, OPPAGA (1998)	Private	N/A	Private	Private	Equal	N/A	Private
Florida, OPPAGA (2000)	N/A	N/A	N/A	Private	Public	Private	N/A
Kentucky, Urban Institute (1989)	Equal	Equal	Public	N/A	Private	N/A	Equal
Louisiana, Archambeault & Deis (1996)	N/A	Inconclusive	Private	N/A	Public	Private	Private
New Mexico, Logan (1992, 1996)	Private	Private	N/A	N/A	Equal	N/A	N/A
Tennessee, Drowota (1995)	Public	N/A	N/A	N/A	Private	Public	Private
Sellers (1989)	N/A	N/A	Private	N/A	N/A	N/A	N/A
Austin & Coventry (1999)	N/A	N/A	Private	N/A	N/A	Public	N/A

required to provide particular programs, it could not be compared to the public facilities.

It is also difficult to make any strong conclusions in the domain of security. In the Louisiana and Florida studies, the private prison had more escapes than its public counterpart. In contrast, the Tennessee, Arizona (Thomas, 1997), and Kentucky studies report the private prisons as having fewer escapes. Although Logan (1992) found that the private and the public (state) facility had an equal number of escapes, the other public (federal) facility had more escapes than either the private or public (state) facilities. In addition, the private facilities and the public facility in the Florida study had an equal number of escapes. Therefore, it is ambiguous as to whether the private facilities are more secure than their public counterparts.

Inconclusive results were also found in the domain of safety. The private facilities had fewer assaults on inmates and staff when compared to the public prisons in the Louisiana and Kentucky studies. The Arizona (Thomas, 1997) study finds that the private facility either had less or an equal number of assaults on inmates and staff (with or without weapons) than did the public facilities during the 6 months under review. The Tennessee study and the Austin and Coventry (1999) analysis, however, show that the private prison had more injuries on staff and inmates than the public prison. To further complicate matters, in the Florida study, where two private facilities were compared to one public facility, one of the private prisons outperformed the public facility in assaults on inmates, but the other private prison had a higher rate of assaults on inmates than both the public and the other private facility. Both private facilities in this study also had a higher rate of assaults on staff than did the public facility.

Finally, in the order domain, private prisons either performed equally as well or outperformed the public prison, and they outperformed the public facilities in the care domain. The private facilities used less formal disciplinary actions in the Louisiana study and the Florida study. In the Tennessee study, the private facility reported fewer disturbances. In the Kentucky and Arizona studies, however, the private and public facility administered an equal number of disciplinary reports. In addition, in the 6 months under review, both the public and private facilities in Arizona reported zero disturbances (Thomas, 1997). The private facilities in the OPPAGA (1998, 2000) studies also had fewer deficiencies in medical services.

SUMMARY

Overall, the comparison of the quality of confinement between public and private prisons is inconclusive. There were few patterns or consistent find-

ings across the studies, with the exception of the safety, order, and care domains. In the domain of safety, private prisons performed equally as well or worse, whereas they performed equally as well or better in the order and care domains. The discrepancies in the findings may be due in part to the methodological limitations of the studies, where the studies did not match or control for other confounding factors.

For example, variations in results across studies could emerge from differences in managerial style rather than ownership. To be sure, Archambeault and Deis (1996) attributed the differences between the private and public facilities to the dissimilar ways in which the prisons were managerially organized (e.g., wardens employing different managerial styles). Without controlling for such management differences, attributing any differences to sheer private or public ownership is problematic. In addition, because of the poor matching techniques used in the studies, as discussed above, it is difficult to rule out threats to internal validity. For example, the age of the facility, the inmate composition, and the size of the facility could affect the outcomes of the studies. Furthermore, most of the studies were case studies simply comparing one or two private facilities to one or two public facilities. With such small sample sizes, we must view the generality of the findings with skepticism because such samples could never be assumed to be representative of all private (or public) prisons. Furthermore, only two of the studies employed tests of statistical significance, leaving the other differences to be read only at face value. Thus, what may appear to be large differences across quality domains may not be statistically significant (i.e., they may be due to sampling error).

Inconsistencies in results could also be attributed to the different data collection methods employed in the studies. There are large differences in the reliability and validity of the data collected through official reports versus those that are obtained through inmate or staff surveys. Official reports fall to the biases of human error and may not include all information. Perhaps in some instances, assaults or injuries were not recorded, which would be expected, as Brister (1996) noted, if the private agency was subject to contract renewal each year. This may skew the results in the safety domain, where private prisons outperformed the public facilities in a few of the studies. Self-report data are also flawed, where inmates and staff may not be honest or may not recall particular instances and may even exaggerate information (Maxfield & Babbie, 1998; cf. Camp, 1999; Camp, Saylor, & Wright, 1999; Van Voorhis, 1994). This is not to say that all types of data are bad. Rather, our point here is to highlight how lumping together data from self-reports and official sources can be potentially misleading.

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

Although such a conclusion may seem somewhat fatalistic, it is nevertheless substantively important. Neither advocates nor critics of prison privatization may, at this point, legitimately claim that the “bulk” of the empirical evidence is on their side. Indeed, the high level of methodological diversity and heterogeneity in results across these studies—generated largely by the idiosyncratic approaches to the case study methods employed by researchers—reveals that bold claims about the relative strengths or weaknesses of private versus public prisons with regard to issues of the quality of confinement would be, at minimum, premature.

COST COMPARISONS

Similar methodological problems also plague the literature addressing the relative cost-effectiveness of public versus private prisons. In this section, these methodological issues will first be discussed, followed by the findings from each of the studies. This section evaluated all studies used to assess quality of confinement measures with the exception of Logan’s (1992, 1996) study in New Mexico and Austin and Coventry’s (1999) evaluation of privatized prisons, because these studies did not provide information on cost. Additionally, a Texas Sunset Advisory Commission (TSAC) (1990) study and a study in Wisconsin (Mitchell, 1996) of private and public facilities were added to the review in this section (they did not provide measures of quality of confinement). The final section provides a summary of the cost-effectiveness of private prisons.

Methodological Issues

Analyzing and comparing the costs of private and public prisons can be problematic. How costs are calculated, the type and location of the facilities, and the number of inmates may affect the result of the comparison. There are many “hidden,” or indirect, costs associated with contract writing, financial liability, and monitoring that may or may not be included in the cost analysis

of private prisons and may be difficult to calculate (McDonald, 1989; Sechrest & Shichor, 1996). Furthermore, direct costs in public institutions may be difficult to isolate, such as those associated with medical care, capital costs for renovations, and construction (Shichor, 1995).

Comparisons also have to be made “on the same kind of institution at the same level of security in the same geographic area” (Shichor, 1995, p. 137). As evidenced above, state prisons may not house the same type of inmates as private prisons, and they may not provide similar programs. Furthermore, the custody level of the facility, the medical need of the inmates, and the social programs provided all affect the cost of operating the prison (General Accounting Office [GAO], 1996; OPPAGA, 2000; Sellers, 1989; Thomas, 1997), where (a) the higher the security level, (b) the more social programs a facility provides, and (c) the greater the medical need of the inmates, the more costly the facility will be to operate.

Prisons with a greater number of inmates will also have a lower per diem cost because the cost decreases as the number of inmates increases due to the “economy of scale” (Pratt & Maahs, 1999, p. 364). The OPPAGA (2000) Florida study compares a higher capacity private facility to a smaller capacity public facility, whereas the private facilities in the Urban Institute’s (1985) Kentucky study and the OPPAGA (1998) Florida study were of a higher capacity than their private counterparts.

Therefore, it is essential that the studies match or control for such characteristics that would skew the findings in favor of the prison with the lowest custody, fewer programs, healthier inmates, and a greater economy of scale. Accordingly, many studies could not find appropriate public prison matches. In these cases, the researchers created a hypothetical public facility (Mitchell, 1996; OPPAGA, 1998; TSAC, 1990)—the findings of which should be viewed with caution because the public facilities were not even actual facilities.

Studies also include various expenditures when calculating prison costs. Table 3 illustrates that few studies calculate the daily per diem operating cost of the facility the same way across public and private facilities. For example, Archambeault and Deis (1996) included different items when calculating the costs of the private and public facilities. They included hospital security costs when calculating the per diem for the private prison but did not include those expenditures when calculating the cost of the public prison. Such medical and health costs were also excluded in the Tennessee (GAO, 1996) study, yet the OPPAGA (2000) study adjusted for such costs in its Florida evaluation. As a result, some studies may demonstrate that the private facility is cheaper when in actuality medical and health costs were eliminated from the calcula-

tion. Mitchell (1996, p. 12) further reminds us that public agencies and private firms use different budgeting and accounting methods that also account for differences in private and public prison operating costs.

The diversity of methodological approaches obscured researchers' ability to accurately compare the costs of the private and public facilities within and across the studies. To be sure, each of these methodological variations will inevitably attenuate any conclusions based on the research. Nevertheless, the following section reviews what the body of empirical literature reveals about the relative cost-effectiveness of private versus public correctional facilities.

EMPIRICAL EVIDENCE

Table 4 indicates that the private prisons were found to be either cheaper or of equal cost to their public counterparts with two exceptions. The GAO (1996) study found the Tennessee cost analysis to be inconclusive. The average per inmate cost per day was U.S.\$35.39 for the private facility, compared to U.S.\$34.90 and U.S.\$35.45 for the public facilities. Therefore, the private facility fell somewhere in between the per diem cost of the public facilities as it was cheaper than one and more expensive to operate than the other. The Urban Institute (1989) also had evidence that the private prison is more expensive to operate than its public comparison with a U.S.\$3.00 per diem difference.

In contrast, the "actual" (as opposed to the hypothetical) public prisons in the remaining studies were found to be more expensive to operate on an inmate cost per day basis. Sellers' (1989) study finds the private prison to be between U.S.\$4.00 and U.S.\$30.00 cheaper per inmate per day than its public counterpart. OPPAGA (2000) found that the Florida private facility was U.S.\$1.54 per diem cheaper than its public comparison in fiscal year 1997/1998 and provided an even higher cost savings in fiscal year 1998/1999 at U.S.\$5.12 per diem. Archambeault and Deis (1996) found the private facilities to be operating from U.S.\$3.11 to U.S.\$3.67 cheaper than the public facilities. Thomas (1997) found a much higher cost savings where the private facility operated U.S.\$7.18 per inmate per day less than the average cost of the public facilities. Certain hypothetically created public facilities were also more expensive than the private facilities. OPPAGA (1998) found the private facility to be U.S.\$1.80 per diem cheaper. Similarly, Mitchell (1996) found the Wisconsin private facility to operate at a U.S.\$1.28 cheaper per diem cost, and TSAC (1990) found an even higher cost savings at U.S.\$3.89 per diem when it compared its private facility to the hypothetical public facility.

TABLE 3: Key Methodological Characteristics of Studies Comparing Cost-Effectiveness Across Public and Private Prisons

<i>Study</i>	<i>Real vs. Hypothetical Facilities</i>	<i>Identical Cost Calculation Methods?</i>	<i>Indirect Costs Calculated?</i>	<i>Security Level</i>	<i>Maximum Capacity</i>	<i>Programs Provided</i>	<i>Age of Facility</i>
Arizona, Thomas (1997)	Real	No	No	Matched	No info.	Not matched	Private newer
Florida, OPPAGA (1998)	Hypothetical	Yes	Yes	Matched	Public larger	Not matched	Private newer
Florida, OPPAGA (2000)	Real	Yes	No	Matched	Private larger	Not enough info.	One year difference
Kentucky, Urban Institute (1989)	Real	Yes	Yes	Matched	Public larger	Not matched	No info.
Louisiana, Archambeault & Deis (1996)	Real	No	Yes	Matched	Matched	Not matched	Matched
Tennessee, General Accounting Office (1996)	Real	Yes	No	Matched	Matched	Not matched	Matched
Texas, Texas Sunset Advisory Commission (1990)	Hypothetical	Yes	Yes	Not matched	Matched	Not enough info.	Not enough info.

TABLE 4: Comparison of Cost-Effectiveness Across Studies

<i>Study</i>	<i>Cheaper?</i>	<i>Significance Test?</i>	<i>Firm Conclusions?</i>
Arizona, Thomas (1997)	Private	No	No
Florida, OPPAGA (1998)	Private	No	No
Florida, OPPAGA (2000)	Private	No	No
Kentucky, Urban Institute (1989)	Public	Yes	Yes
Louisiana, Archambeault & Deis (1996)	Private	Yes	Yes
Sellers (1989)	Private	No	No
Tennessee, General Accounting Office (1996)	Inconclusive	No	No
Texas, Texas Sunset Advisory Commission (1990)	Private	No	No
Wisconsin, Mitchell (1996)	Private	No	No

SUMMARY

Although the findings appear to have a consistent pattern with the private facilities operating with an approximate median⁶ per diem cost difference of U.S.\$3.40 cheaper than the public facilities, the methodological limitations of the studies are a cause for caution when interpreting results. For example, many studies use poor matching techniques (OPPAGA 1998, 2000; Thomas, 1997; Urban Institute, 1989). In addition, three of the studies compare “hypothetical” costs (Mitchell, 1996; OPPAGA, 1998; TSAC, 1990), and the Louisiana and Kentucky studies were the only studies that employ tests of statistical significance to assess the differences in cost. Furthermore, many of the studies fail to account for confounding factors that could have influenced the cost differences, such as security level, maximum capacity, and the number of programs the facility provided.

Thus, as with the literature addressing the comparisons of the quality of confinement across public and private prisons, the existing cost comparisons offer little in the way of firm conclusions about whether turning over the responsibility of managing prisons to the private sphere will result in any substantial and/or consistent cost savings. Indeed, the variations in the methodological approaches taken by researchers and the lack of generalizability associated with the case study method do not lend themselves well to any concrete conclusions about cost-effectiveness. Even so, the current *inability* to state with any certainty whether private correctional management is—or is not—a sure bet for easing the burden on state correctional budgets is important for two reasons. First, like the literature on the quality of confinement, neither side of the correctional privatization debate should, at this time, be

able to legitimately claim that the weight of the empirical evidence is on their side. There are simply too many methodological variations and shortcomings within this body of literature to warrant confidence in either position. Second, and similarly, the lack of empirical clarity brought on by the dissimilarities in the case study methods employed by researchers in this area thus far may be remedied, at least to a certain extent, by alternative methods of studying the effects of prison privatization. To date, only one study attempted to address the limitations of the above studies (Pratt & Maahs, 1999).

Pratt and Maahs (1999) reviewed all studies that were published in academic journals and all federal, state, and local evaluation reports from political agencies in search of common statistical patterns in the cost-effectiveness evaluation research. Only those studies that include an estimate of the inmate cost per day, or a way to calculate it, and provide information on institutional characteristics of the facilities were included in their sample. The analysis of 33 cost evaluations found that there was no overall significant pattern of cost savings for private over public prisons. To be sure, after controlling for the number of inmates, the age of the facility, and security level, the ownership variable—whether public or private—was found to be “an insignificant predictor of the standardized measure of inmate cost per day” (Pratt & Maahs, 1999, p. 365).

This was the first study comparing private and public facilities that tests for the significance of ownership while controlling for other confounding factors. Pratt and Maahs’ (1999) study is not flawless, however. It assesses evaluations of a small nonrandom sample of prisons, which may indicate a threat to external validity (i.e., it remains difficult to generalize to all private facilities). Even so, this study is a step in the direction that future research should progress. To that end, the final section of this paper discusses how we can reach a better understanding of the relative advantages and disadvantages of public versus private prisons with regard to issues of the quality of confinement and cost-effectiveness.

CONCLUSIONS

In recent years, there has been an increasing call for “evidence-based” policy making in corrections (MacKenzie, 2000; Sherman et al., 1997). Although this call has been taken up most aggressively by researchers who advocate adopting strategies for offender treatment to reduce recidivism (Andrews et al., 1990; Cullen & Gendreau, 2000; Latessa & Holsinger, 1998; Palmer, 1992; Petersilia, 1996), the implications of the evidence-based movement in corrections are much broader. In short, it is a challenge to cor-

rectional policy makers to use the best available empirical evidence to inform their decisions—not only for the purpose of correctional rehabilitation, but for all other domains of correctional policy as well.

Even so, such an approach assumes that the body of empirical studies addressing a given topic clearly demonstrates a preponderance of evidence in favor of a particular side of a debate. Unfortunately, this is not the case when it comes to the literature addressing the relative cost-effectiveness and quality of confinement in public versus private prisons. To be sure, our understanding of these issues is severely obscured by variations in how researchers have gone about studying the dynamics of prison privatization. Indeed, should we place greater emphasis on studies assessing real or hypothetical prisons? What is the best way to conceptualize and measure quality? Perhaps even more critical, how much credence should we afford studies where the number of independent variables exceeds the number of observations (see the discussion by Useem & Reisig, 1999)?

In addition to these concerns, how should correctional policy makers determine which side is “right” when both advocates and opponents of prison privatization claim that the weight of the empirical evidence is on their side? Accordingly, based on the present review, the volume of methodological inconsistencies across studies indicates that the confusion surrounding the demonstrated advantages and disadvantages of prison privatization is warranted. To advance this portion of the debate to the point where evidence-based correctional policy making can actually take place, certain changes in the way scholars go about studying these issues would be helpful. With this goal in mind, we have three major recommendations for future researchers that may help to clarify the empirical portion of the prison privatization debate.

Our first recommendation is to *move beyond the case study method*. Case studies have undoubtedly dominated the empirical landscape in prison privatization research. The utility of this approach of course lies in the ability of the researcher to understand certain organizational processes (e.g., budgeting and contracting) and to serve decidedly “localized” goals (i.e., Would prison privatization benefit a particular region in a particular state?). Nevertheless, a comparative analysis based on a sample size of two or three facilities tells us precious little about the nearly 2000 other secure adult correctional facilities (not to mention juvenile facilities) in the United States.

In essence, the case study approach has contributed—by itself—to the lack of empirical clarity associated with prison privatization research in two ways. First, and most obvious, case studies—by definition—lack generalizability. In other words, a comparison of two medium-security correctional facilities in one state may show either a public or private advantage

in terms of cost-effectiveness and/or quality of confinement, yet one cannot assume that such results will be replicated elsewhere. Perhaps even more important—and briefly stated above—the second problem brought on by the overreliance on case studies in this area is that the inconsistencies in results across case studies allow researchers on both sides of the debate to marshal a certain “block” of studies in their favor. More large-scale studies would therefore help to remove some of the controversy surrounding what is “known” about public versus private prisons that has been brought on by the current dependence on the results generated by the bevy of case studies.

Our second recommendation is that should case studies continue to be conducted, *researchers should give the scrutiny of management practices equal weight with contracting and budgeting concerns*. This has been done with a high degree of methodological rigor only in the study conducted by Logan (1992). Most often, researchers tend to be more concerned, for example, with how private agencies may manipulate accounting practices and/or circumvent traditional budgeting procedures so that an appearance of cost-effectiveness can be maintained. We certainly do not want to trivialize these issues as being unimportant to our understanding of the possible advantages and disadvantages of prison privatization. Indeed, these are legitimate concerns that researchers have been wise to consider. Nevertheless, what needs to be uncovered now is an understanding of: (a) the administrative techniques used by private agencies that may be capable of resulting in a lower cost and/or a higher quality of service provision and in turn, (b) whether these are techniques that can be adopted by public agencies as well. Such information would reveal whether the key variable in the operation of prisons is, independent of “ownership,” how the facilities are managed (DiIulio, 1987, 1990).

Finally, as with fields such as correctional treatment (Andrews et al., 1990; Lipsey, 1992), a centralized database should be created containing the most accurate and up-to-date research information on both public and private prisons. The foundation for such a project already exists with the census of U.S. correctional facilities data set sponsored by the Bureau of Justice Statistics. The information on the private facilities in these data sets, however, is generally considered to be unreliable on certain key quality of confinement variables (e.g., escapes, rule infractions, violent incidents), and only crude cost estimates are included (i.e., no information on potential hidden costs are provided; see the discussion by Austin & Coventry, 1999). Thus, a database housing the most current and reliable information on public versus private prisons that could be accessed by both policy makers and academics would no doubt prove to be an invaluable resource. To be sure, prison privatization continues to expand, and the business of corrections is still “booming”

(Harland, 1997, p. 3). As such, providing correctional policy makers with more conclusive and definitive empirical information may help to add a more rational component to discussions about prison privatization that may then contend with the legal, philosophical, and moral dimensions of the debate.

NOTES

1. The academic journals reviewed include *The Australian Journal of Criminology*, *Crime and Delinquency*, *Crime, Law and Social Change*, *Criminal Justice Policy Review*, *Criminology*, *Corrections Management Quarterly*, *Federal Probation*, *The Howard Journal of Criminal Justice*, *International Journal of Offender Therapy and Comparative Criminology*, *Journal of Criminal Justice*, *The Journal of Criminal Law and Criminology*, *Research in Corrections*, *Justice Quarterly*, and *The Prison Journal*.

2. This review excluded studies regarding community correctional facilities and those studies conducted outside of the United States. The analysis was limited to United States' prison studies for two reasons. First, the United States views privatization and private companies much differently than comparable countries abroad (Harding, 1998). Secondly, the United States has a very different idea about the use of prisons and prison policy. The United States has the second largest imprisonment rate in the world, trailing behind Russia (Van Slambrouck, 1998). Other countries contracting out to private industries, such as the United Kingdom, has about one fifth of the United States' incarceration rate (Home Office, 1999). Therefore, comparing private prison studies internationally to those within our own borders is problematic.

3. The facilities were opened within 1 or 2 years of its comparison.

4. Researchers have found DiIulio's (1987) measures of amenity, order, and service to be difficult to measure and to be more subjective (but see Reisig, 1998). DiIulio himself even acknowledged that order "is the most easily measured" (p. 50). Furthermore, amenity is based primarily on the perception of the inmates as it assesses if the cells are considered to be clean and if the food is good. Logan's (1992) domains, however, can be obtained through prison records. Additionally, his eight domains provide more extensive information on the quality of the prison, as he captures DiIulio's three domains of order, amenity, and service and adds four other domains.

5. Because only one study focused on the domain of justice, this domain was not included in the analysis.

6. Given the large confidence interval in the study conducted by Sellers (1989), U.S.\$3.40 is an approximate median value in the distribution of cost differentials between the public and private facilities.

REFERENCES

- Anderson, P., Davoli, C. R., & Moriarty, L. (1985). Private corrections: Feast or fiasco? *The Prison Journal*, 65, 32-41.
- Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis. *Criminology*, 28, 369-404.
- Archambeault, W. G., & Deis, D. R. (1996, December). *Cost-effectiveness comparisons of private versus public prisons in Louisiana: A comprehensive analysis of Allen, Avoyelles, and*

- Winn Correctional Centers (Executive Summary). Baton Rouge: Louisiana State University, School of Social Work.
- Austin, J., & Coventry, G. (1999). *Emerging issues on privatized prisons*. Washington, DC: National Council on Crime and Delinquency.
- Beck, A. J., & Karberg, J. C. (2001, March). *Prison and jail inmates at midyear 2000* (Bureau of Justice Statistics Bulletin). Washington, DC: U.S. Department of Justice, Office of Justice Programs.
- Bowditch, C., & Everett, R. S. (1987). Private prisons: Problems with the solution. *Justice Quarterly*, 4, 441-453.
- Brister, R. C. (1996). Changing of the guard: A case for privatization of Texas prisons. *The Prison Journal*, 76, 310-330.
- Camp, S. D. (1999). Do inmate survey data reflect prison conditions? Using surveys to assess prison conditions of confinement. *The Prison Journal*, 79, 250-268.
- Camp, S. D., & Gaes, G. G. (1998, October). *Private adult prisons: What we know and how we can know more*, monograph. Washington, DC: Federal Bureau of Prisons, Information, Policy, and Public Affairs Division.
- Camp, S. D., Saylor, W. G., & Wright, K. N. (1999). Creating performance measures from survey data: A practical discussion. *Corrections Management Quarterly*, 3, 71-80.
- Colson, C. (1989). Alternatives to reduce prison crowding. *Journal of State Government*, 62, 59-94.
- Corrections Corporation of America. (2001). *Frequently asked questions (FAQ)*. Available from www.correctionscorp.com/statsqa.html
- Cox, N. R., & Osterhoff, W. E. (1993). The public-private partnership: A challenge and an opportunity for corrections. In G. Bowman, S. Hakim, & P. Seidenstat (Eds.), *Privatizing correctional institutions* (pp. 113-129). New Brunswick, NJ: Transaction Publishers.
- Cullen, F. T., & Gendreau, P. (2000). Assessing correctional rehabilitation: Policy, practice, and prospects. In J. Horney (Ed.), *Criminal justice 2000* (pp. 109-75). Washington, DC: National Institute of Justice.
- DiIulio, J. J. (1987). *Governing prisons: A comparative study of correctional management*. New York: Free Press.
- DiIulio, J. J. (1991). *No escape: The future of American corrections*. New York: Basic Books.
- Drowota, C. (1995). *Comparative evaluation of privately-managed CCA prisons (South Central Correctional Center) and state-managed prototypical prisons (Northeast Correctional Center, Northwest Correctional Center)* (Executive Summary). Nashville, TN: Select Oversight Committee on Corrections, Tennessee Assembly.
- Durham, A. M. (1989). The privatization of punishment: Justification, expectations, and experience. *Criminal Justice Policy Review*, 3, 48-73.
- Geis, G., Mobley, A., & Shichor, D. (1999). Private prisons, criminological research, and conflict of interest: A case study. *Crime & Delinquency*, 45, 372-388.
- General Accounting Office. (1996). *Private and public prisons: Studies comparing operational costs and/or quality of service*. Washington, DC: Author.
- Harding, R. (1998). Evaluating private prisons: A reply. *The Australian Journal of Criminology*, 31, 314-320.
- Harland, A. (1997). Editorial introduction. *The Prison Journal*, 77, 3-5.
- Henig, J. R. (1985). Privatization and decentralization: Should governments shrink? *Public Policy and Federalism*, 12, 26-53.
- Home Office. (1999). *Research development statistics*. Available from <http://www.homeoffice.gov.uk/rds/prischap1.html>

- Lanza-Kaduce, L., Parker, K. F., & Thomas, C. W. (2000). The devil in the details: The case against the case study of private prisons, criminological research and conflict of interest. *Crime & Delinquency, 46*, 92-136.
- Latessa, E. J., & Holsinger, A. (1998). The importance of evaluating correctional programs: Assessing outcome and quality. *Corrections Management Quarterly, 2*, 22-29.
- Lilly, R. J., & Deflem, M. (1996). Profit and reality: An analysis of the corrections commercial complex. *Crime & Delinquency, 42*, 3-20.
- Lilly, R. J., & Knepper, P. (1993). The corrections-commercial complex. *Crime and Delinquency, 39*, 150-166.
- Lipsley, M. (1992). Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In T. D. Cook et al. (Eds.), *Meta-Analysis for explanation: A casebook* (pp. 83-127). New York: Russell Sage.
- Logan, C. H. (1987). The propriety of prisons. *Federal Probation, 51*, 35-40.
- Logan, C. H. (1990). *Private prisons: Cons and pros*. New York: Oxford University Press.
- Logan, C. H. (1992). Well-kept: Comparing quality of confinement in private and public prisons. *The Journal of Criminal Law and Criminology, 83*, 575-613.
- Logan, C. H. (1996). Public vs. private prison management: A case comparison. *Criminal Justice Review, 21*, 62-85.
- MacKenzie, D. L. (2000). Evidence-based corrections: Identifying what works. *Crime and Delinquency, 46*, 457-471.
- Maxfield, M. G., & Babbie, E. (1998). *Research methods for criminal justice and criminology* (3rd ed.). Belmont, CA: Wadsworth.
- McConville, S. (1987). Aid from industry? Private corrections and prison crowding. In S. Gottfredson & S. McConville (Eds.), *America's correctional crisis: Prison populations and public policy* (pp. 221-242). New York: Greenwood.
- McDonald, D. C. (1989). The cost of corrections: In search of the bottom line. *Research In Corrections, 2*, 1-26.
- Mitchell, G. A. (1996, December). *Controlling prison costs in Wisconsin* (Report No. 9). Thiensville: Wisconsin Policy Research Institute, Inc.
- Office of Program Policy Analysis and Government Accountability. (1998, April). *Review of Bay Correctional Facility and Moore Haven Correctional Facility* (Report No. 97-68). Tallahassee, FL: Author.
- Office of Program Policy Analysis and Government Accountability. (2000, March). *South Bay Correctional Facility provides savings and success: Room for improvement* (Private Prison Review Report No. 99-39). Tallahassee, FL: Author.
- Ogle, R. S. (1999). Prison privatization: An environmental catch-22. *Justice Quarterly, 16*, 579-600.
- Palmer, T. (1992). *The re-emergence of correctional intervention*. Newbury Park, CA: Sage.
- Petersilia, J. (1996). Improving corrections policy: The importance of researchers and practitioners working together. In A. T. Harland (Ed.), *Choosing correctional options that work* (pp. 223-231). Thousand Oaks, CA: Sage.
- Pratt, T. C., & Maahs, J. (1999). Are private prisons more cost-effective than public prisons? A meta-analysis of evaluation research studies. *Crime & Delinquency, 45*, 358-371.
- Reisig, M. D. (1998). Rates of disorder in higher-custody state prisons: A comparative analysis of managerial practices. *Crime & Delinquency, 44*, 229-244.
- Reisig, M. D., & Pratt, T. C. (2000). The ethics of correctional privatization: A critical examination of the delegation of coercive authority. *The Prison Journal, 80*, 210-222.
- Schiraldi, V., & Greene, J. (2002, February). *Cutting correctly: New state policies for times of austerity* (Policy Report). Washington, DC: Justice Policy Institute.

- Sechrest, D. K., & Shichor, D. (1996). Comparing public and private correctional facilities in California: An exploratory study. In G. L. Mays & T. Gray (Eds.), *Privatization and the provision of correctional services: Context and consequences* (pp. 133-151). Cincinnati, OH: Anderson.
- Sellers, M. P. (1989). Private and public prisons: A comparison of costs, programs and facilities. *International Journal of Offender Therapy and Comparative Criminology*, 33, 241-256.
- Sherman, L. W., Gottfredson, D., MacKenzie, D. L., Eck, J., Reuter, P., & Bushway, S. (1997). *Preventing crime: What works, what doesn't, what's promising*. Washington, DC: National Institute of Justice.
- Shichor, D. (1993). The corporate context of private prisons. *Crime, Law and Social Change*, 20, 113-138.
- Shichor, D. (1995). *Punishment for profit: Private prisons/public concerns*. Thousand Oaks, CA: Sage.
- Steelman, S., & Harms, K. (1986). Construction management firms—saving time and money. *Corrections Today*, 48, 64-66.
- Texas Sunset Advisory Commission. (1990, December). *Contracts for correctional facilities and services* (Staff Report to the Sunset Advisory Commission). Austin, TX: Author.
- Thomas, C. W. (1997, August). *Comparing the cost and performance of public and private prisons in Arizona*, monograph. Phoenix, AZ: Arizona Department of Corrections.
- Thomas, C. W. (2001, September). *Private Adult Correctional Facility Census: A "real-time" statistical profile*. Available from <http://web.crim.ufl.edu/pcp/census/2001/>
- Urban Institute. (1985, August). *Comparison of privately and publicly operated corrections facilities in Kentucky and Massachusetts*, project report. Washington, DC: Author.
- Useem, B., & Reising, M. D. (1999). Collective action in prisons: Protests, disturbances, and riots. *Criminology*, 37, 735-760.
- Van Slambrouck, P. (1998, August 6). U.S. prisons—under pressure—shows increase in violence. *Christian Science Monitor*. Available from <http://www.csmonitor.com/durable/1998/08/06/pls2.htm>
- Van Voorhis, P. (1994). Measuring prison disciplinary problems: A multiple indicators approach to understanding prison adjustment. *Justice Quarterly*, 11, 679-709.
- Vardalis, J. J., & Becker, F. W. (2000). Legislative opinions concerning the private operation of state prisons: The case of Florida. *Criminal Justice Policy Review*, 11, 136-148.
- Wackenhut. (2001). *The Wackenhut corporation press release page*. Available from www.wackenhut.com/twc-pr.html
- Winn, R. G. (1996). Ideology and the calculation of efficiency in public and private correctional enterprise. In G. L. Mays & T. Gray (Eds.), *Privatization and the provision of correctional services: Context and consequences* (pp. 21-30). Cincinnati, OH: Anderson.

Dina Perrone is a research assistant and Ph.D. student at the School of Criminal Justice at Rutgers University. Her primary research interests include "club drug" use, drug policy, and correctional policy.

Travis C. Pratt is an assistant professor in the Department of Political Science/Criminal Justice at Washington State University. His primary areas of interest include correctional policy and macro-level criminological theory. His recent articles have appeared in The Prison Journal, Criminal Justice Policy Review, Crime & Delinquency, Criminology, and Justice Quarterly.