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Comparing Costs of Public and Private Prisons: A Case Study

by Charles H. Logan, Ph.D., and Bill W. McGriff, C.P.A.

What are the total governmental costs of imprisonment? Would these costs be lower or higher if prisons were run by private companies under contract? Many jurisdictions today are asking the second question without a requisite understanding of how to answer the first.

This article illustrates how one jurisdiction, Hamilton County, Tennessee, calculated answers to both questions. Hamilton County found that contracting out prison management generated annual savings of at least 4 to 8 percent—and more likely in the range of 5 to 15 percent—compared to the estimated cost of direct county management.

This is believed to be the first published study comparing the actual costs of public and private operation of a prison facility. Results in different corrections systems may vary. However, other jurisdictions may be able to profit from—and improve upon—this approach to analyzing correctional costs. The methodology used overcomes the major difficulty in comparing correctional expenditures—the problem of hidden costs.

Photo courtesy Corrections Corporation of America

Hidden costs of corrections

Generally, reports of government correctional costs are taken from a single budget, either that of a facility

Charles H. Logan is Associate Professor of Sociology at the University of Connecticut. Bill W. McGriff is County Auditor for Hamilton County, Tennessee.

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or of the agency in charge of the facility. While correctional budgets vary, it is fair to say that no official budget shows all of the direct and indirect costs of corrections.

Costs that do not appear in a budget can be referred to, for convenience, as "hidden costs." This does not imply that they are deliberately concealed, only that they are not easily discernible. Most of these costs come from the budgets of other agencies, or from a general fund, where they may not be identified specifically as expenditures on corrections. Even a rough inventory (see box) shows how extensive the hidden costs of corrections can be.

Costs omitted from correctional budgets can amount to one-third the value of those that are included. A 1985 survey of State correctional officials asked, first, for reports of *agency* costs and, second, for estimates of *total* costs of correctional confinement and care, taking into account expenditures by other agencies.[1] The 42 States responding reported an average estimated total cost that was 13.5 percent higher than the average reported agency cost. That, however, was for operating costs only; if construction and financing had been included, total costs would have exceeded reported agency costs by an even greater margin.

Citing studies from New York State, New York City, and Canada, in which total costs were estimated at 30 to 44 percent above normally reported agency costs, the researchers concluded that true total costs are likely to be 20 to 35 percent higher than reported agency costs. It is reasonable to assume that real costs are typically 35 percent higher. When agencies or facilities do not pay pensions and fringe benefits out of their own budgets, that omission alone will call for a 25 to 30 percent inflation factor.

Correctional officials may find it difficult to identify and estimate correctional costs that are paid from another agency's budget. A county auditor, however, is in a good position to do so. That fact forms the basis of the analysis that follows.

Some Hidden Costs of Corrections

- **Capital costs:** land purchases, construction, major equipment, depreciation or amortization.
- **Finance costs:** service and interest on bonds.
- **Opportunity costs:** taxes or rent forgone from alternative uses of land or buildings.
- **Employment (fringe) benefits:** insurance, longevity bonuses, retirement contributions, unfunded pension payouts.
- **Unemployment and workers' compensation costs.**
- **External administrative overhead:** prorated share of the expenses of centralized executive offices (governor, mayor, etc.) or administrative offices (e.g., personnel services, central purchasing, data processing, general services administration).
- **External oversight costs:** inspections, program monitoring, administrative or judicial reviews and appeals of decisions, auditing and other comptroller services.
- **Legal service costs,** including public funds for inmate plaintiffs and defendants as well as for defense of the government.
- **General liability costs:** successful legal claims, punitive damages, fines, court costs, premiums for general liability insurance or costs of administering a self-insurance plan.
- **Property insurance costs:** premiums or self-insurance costs for fire, theft, and casualty protection (or risk cost of uninsured losses).
- **Staff training costs** (when provided or subsidized by another agency).
- **Transportation costs:** transportation services, vehicles, vehicle maintenance, fuel, parts, related costs (when provided by other departments).
- **Food costs** (when other government agencies provide surplus food or subsidies).
- **Interagency personnel costs** (when personnel are borrowed from other agencies for routine purposes or emergencies).
- **Treatment or program costs** (when other agencies provide hospitalization, medical and mental health care, education, job training, recreation, counseling, or other treatment programs and services).

Hamilton County Penal Farm: a cost comparison

On October 15, 1984, Corrections Corporation of America (CCA) assumed management of the Hamilton County Penal Farm. This 350-bed minimum-to-medium-security county prison located near Chattanooga holds convicted county misdemeanants, State felons, and some pretrial detainees under the county's jurisdiction.

The cost of the contract is renegotiated by CCA and the county every year. For that purpose, Bill McGriff, the county auditor (and one of the authors of this report), prepares an annual analysis estimating what the total cost would be if the county were to run the prison directly and comparing that to the estimated total cost of continuing to operate the facility under contract. The costs estimated for fiscal year 1986–87, given direct county operation, are itemized in table 1.

Costs under county management

The first nine items in table 1 appeared as line items in the Penal Farm budget when it was under county operation. Actual expenditures in these categories are available for fiscal year 1983–84, the last year in which the county itself ran the prison. To project from these 1983–84 expenditures what it would cost the county to take back the prison in later years, McGriff made four assumptions:

1. Staffing would be the same as the contractor's, with certain adjustments.

2. Prison employee salaries would have increased in the interim by the same amount as the salaries of other county employees.

3. Nonsalary expenses would have increased at a rate equal to inflation as measured by the Consumer Price Index (CPI), and where appropriate, a rate equal to the increase in the prisoner population.

4. The county would have incurred no extraordinary expenses, such as a lawsuit settlement beyond the level of insurance coverage.

The assumptions were designed to be conservative—to underestimate costs to the county if it had retained or resumed management of the prison.

For example, the assumption that county staffing would be the same as that of the contractor is realistic for purposes of pricing a *resumption* of control. However, it could well underestimate what the staff size might have grown to under *continued* county management because one of the goals of contracting is to achieve greater staffing efficiency.

Assumption 2 had to be modified in fiscal year 1986–87 because a county wage study indicated that prison employees, among others, had been especially underpaid by the county. If the county took back the prison, it would have to pay salaries responsive to the wage study, whether higher or lower than the contractor's. Furthermore, the personnel department indicated that since corrections officers at the prison must be certified and trained in the same manner as the sheriff's jail officers, they should be paid accordingly. Jail officer trainees with 6 months' experience were paid at grade 8, while the entry level for prison officers prior to the contract was at grade 4.

Table 1.

Hamilton County Penal Farm—Estimated Total Cost if Operated by County, Fiscal Year 1986–87

1.	Salaries and wages	$1,239,380
2.	Fringe benefits	320,491
3.	Food and kitchen supplies	404,966
4.	Medicine and personal care	28,694
5.	Utilities	198,587
6.	Consumable maintenance supplies	56,532
7.	Uniforms	61,237
8.	Equipment	45,506
9.	Other operating expenses	108,045
	Subtotal: Operating budget items	**$2,463,438**
10.	Maintenance and garbage collection	70,195
11.	Insurance	41,885
12.	Clerk of workhouse records	16,238
13.	County hospital care	238,886
14.	Depreciation on pre-contractor construction	57,500
15.	Interest on pre-contractor construction	74,878
16.	Amortized purchase of contractor addition	152,000
17.	Other direct costs[a]	204,888
18.	Other indirect costs[b]	93,833
	Total cost for year	**$3,413,741**
	Prisoner days (avg. pop.: 364)	**132,788**
	Cost per prisoner day	**$ 25.71**

[a] Other direct costs: personnel, accounting, financial management, data processing, purchasing, county physician, human services administrator.

[b] Other indirect costs: county commission, county executive, county auditor, county attorney, finance administrator.

On the other hand, the county had a policy of not upgrading a position more than two grades in one year, which might or might not have applied to the prison officers because they had already been out of the county system for a year. The fiscal year 1986–87 analysis assumed an upgrade of only two grades if the county took back the prison, leaving the prison officers, at grade 6, about 13 percent below the novice jail officers at grade 8. This is a significant underestimate, since it is reasonable to suppose that corrections officers returning to the county payroll (especially those with experience) would be paid no less than entry level jail officers. It should be noted that underestimation of salaries also implies underestimation of fringe benefits. Together, these two categories constitute close to half of total costs.

Assumption 3, because it uses the CPI, probably underestimates inflation in other county costs. Since World War II, the cost of services provided by government has tended to rise substantially faster than the CPI,[2] and correctional costs have recently been rising even faster than other government costs.

Assumption 4, that no extraordinary (i.e., unforeseeable or incalculable) expenses would occur, is a necessary one. However, because such expenses are bound to occur sooner or later, the assumption has the effect of underestimating the potential costs of county management. Without a contract, all such costs would fall on the county. Under private management, the contractor serves as a buffer by shouldering some of the risk of uninsured losses or unexpected cost increases, unless the contract can be renegotiated.

Cost items 10 through 18 in table 1 would not appear in the Penal Farm budget under county administration; rather they would be charged to other budgets, as the following examples show.

- Maintenance and garbage removal at the prison. These were previously provided by the county out of other budgets.

- Liability and property insurance. McGriff estimated what it would cost the county to obtain liability and property insurance for the prison by using a portion of the total cost of insuring the sheriff's department, which includes a jail.[3]

- The salary of the workhouse records clerk, who keeps records on time served by prisoners. The salary for this position is separate from the Penal Farm's budget.

- Hospital care for all prisoners. This is paid by the county from funds set aside for indigents.

- Depreciation and interest costs. These are calculated for all construction at the prison prior to the contract.

Item 16 reflects the $1.6 million in renovations and additions invested by the contractor in its first year of operating the prison. If the contract were terminated, the county would have to reimburse the contractor. The estimated cost of this reimbursement assumed a bond rate of 7 percent and a depreciation period of 40 years.

Other direct costs include activities of central offices that routinely perform services for all county agencies: personnel, accounting, financial management, data processing, and purchasing. Under county management, the prison required these services although they were not paid for out of the prison budget. The salary of the county physician, who worked part time for the county, is an example of a direct cost as are the salaries of the human services administrator, whose division includes the prison, and her secretary.

Other indirect costs are those incurred by certain county officials at the executive level. These officials and their staffs must spend some portion of their time dealing with matters pertaining to the prison.

Prorating formulas

For other costs, both direct and indirect, conservative prorating formulas were used to calculate what proportions of various other budgets to attribute to the prison. The Personnel Department costs, for example, were attributed to the Penal Farm in the same proportion as prison employees were to total county employees. However, personnel turnover is much greater in corrections than it is in other areas of county employment. The county personnel director confirmed that the assumption of equal effort per worker underestimates the time his department would spend dealing with prison employees.

The county physician attended prisoners at the jail as well as at the prison, so his salary and fringe benefits were attributed to the Penal Farm in the same proportion as Penal Farm inmates to the total inmate population (prison plus jail).

The salary and fringe benefits of the human services administrator and her secretary were prorated based on the Penal Farm's portion of the county's total human services obligations.

All other direct and indirect costs were prorated based on total Penal Farm obligations as a percentage of the county's total General Fund obligations. This formula assumes that the ratio of external costs to internal costs was no greater at the Penal Farm than in the average county operation.

Again, such an assumption may well underestimate actual costs. For example, auditing and purchasing for the prison are more difficult than for other county operations and thus are underestimated by the prorating technique. As a case in point, the county had to go through a formal bidding process every week for prison kitchen supplies. After the contractor took over all prison purchasing, the county was able to eliminate two buyer positions.

It is safe to assume that when it was under direct county administration, the Penal Farm caused more headaches per dollar of internal spending and required more time from some county executives than did the average county operation. The county attorney, for example, probably spent more time on prison matters than on many other county matters prior to contracting. County commissioners everywhere cite the county jail or prison as a disproportionate source of problems, particularly when they are uninsured against personal liability in the case of lawsuits. Thus, the proportional attribution of part of the time and budgets of county executives to prison matters was probably on the low side.

Table 1, then, shows a modestly estimated total cost of $3,413,741 for fiscal year 1986–87, if the prison were under direct county management. Note that the total cost shown at the bottom of table 1 is 38.6 percent higher than the subtotal, which includes only prison budget line items. As noted earlier in the discussion of hidden costs, we suggested adding 35 percent to most prison budgets to reflect estimated indirect costs. If Hamilton County had charged fringe benefits to a general budget, as many other jurisdictions do, the total would have been 74 percent higher than the subtotal.

At an estimated total cost per prisoner day of $25.71 for fiscal year 1986–87, Hamilton County would have been very frugal. A 1986 survey showed a reported cost of $30.26 per prisoner day for 10 jails in the East South Central region (Alabama, Kentucky, Mississippi, Tennessee).[4] In 1983–1984, the reported cost per prisoner day across all of Tennessee's State adult confinement facilities was $30.17.[5] Even though this figure includes capital as well as operating expenditures, it is probably not as inclusive as the Hamilton County estimate, and the period it covers is 3 years earlier.

Clearly, then, Hamilton County's estimated costs for county management of the Penal Farm were low relative to those of other government-run facilities in the same region. Therefore, this facility provides a fairly severe test of a private contractor's ability to lower costs to government of operating a prison.

Costs under contracting

After estimating costs under county management, total prison and related costs to Hamilton County under contractual management can be calculated fairly clearly, simply, and thoroughly. The fee per prisoner day is fixed by contract and the number of prisoners, while not always predictable, is known precisely for any past or current period. To these per diem payments, however, three other sets of costs must be added:

1. The salary of the superintendent (who monitors the contract and makes all release and gain time decisions) and that of his secretary.

2. Certain other costs that the county continues to pay directly: the salary of the clerk of workhouse records, county hospital care for prisoners, and depreciation and interest on construction prior to the contractor coming on board (items 12–15 in table 1).

3. Other indirect costs (item 18 in table 1). The prison continues to require some attention by county executives, but only a small fraction of the time they devoted to prison matters under county operation; this fraction is estimated generously as one-quarter.

These costs, which could be called the "hidden costs" of contracting, are offset by what might be referred to as a "hidden rebate" from contracting. Every year, the contractor pays about $64,000 back into the community in local sales, property, and business taxes that would not otherwise have been collected.

Comparison of costs

Table 2 shows the total costs to Hamilton County for each of the first 3 fiscal years, when the prison was managed by the contractor. These are compared to the total costs (as estimated by the methods described for table 1) that would have been incurred under county management.

Fiscal year 1985–86 was the first full fiscal year under the contract. The contractor's fee that year was $21 per prisoner day. The higher per diem figure of $24.10 shown in the table is based on total county costs under the contract—including hidden costs—not just the fee paid to the contractor.[6] In fiscal year 1986–87, the fee was raised to $22, where it remained the following year.

Table 2 shows savings to the county of *at least* 3.8 percent the first year, 3.0 percent the second year, and 8.1 percent the third year. The savings dipped a little when the contractor first raised its fee; however, they increased considerably the following year, when the contractor held (or was held) to the same fee while the county's own cost basis increased.

Because of the conservative nature of the county cost estimates, the savings are *certainly more than* those identified in table 2. For example, consider the effects of assumption 2 (regarding county salaries) on the figures for fiscal year 1986–87, where savings were lowest. Even if average pay of prison officers had been estimated as *equal* to that of novice jail officers, rather than two grades lower, this would still have underestimated county costs. However, it would have added $148,676 to the estimated county costs, and the estimated savings for that year would have been 7 percent rather than 3 percent. This adjustment would not affect the estimate for fiscal year 1985–86 (see earlier discussion of assumption 2), but the $148,676 increase in county salaries would continue during fiscal year 1987–88, so the estimated savings for that year would be 12 percent rather than 8 percent.[7]

There still remain several other downward biases in the county cost estimates and therefore in the estimated savings. These include the underestimation of governmental inflation, the assumption of no unforeseen expenses, and the conservative prorating techniques for other direct costs and other indirect costs. Only the direction of these biases is known; it is too difficult to estimate their magnitude. However, based on a subjective allowance for their existence, a reasonable yet still cautious estimate of real savings over the 3-year period would range from 5 to 15 percent per year.

Comparing the costs of public and private prisons: an overview

Two methodological problems in particular make it hard to compare the costs of public and private prisons. One, as already discussed in detail, is the problem of hidden costs, which vary in size and source depending on the type of prison administration. The other is the "apples and oranges" problem. The facilities and programs being compared are not sufficiently alike in other respects to make a straight dollar comparison fair.

The study summarized here reduces the magnitude of both problems by comparing the total cost of a privately operated county prison with the estimated total cost (projected from prior expenditures) to the county if it operated that same facility itself.

The words "total" and "same" must be immediately qualified, however. Although it is fairly thorough, this study undoubtedly does not capture all costs, and the prison, as administered by the contractor, is different in important respects from what it would have been if the county had continued to operate it directly.

In estimating correctional costs, the only certainty is that there will be errors, generally errors of omission. In this study, however, those errors actually strengthen the findings. When reliable figures could not be obtained, the study either omitted costs or used assumptions that erred on the low side. Thus, we have confidence in the *direction* if not the absolute size of the findings. It is clear that Hamilton County saves money by operating its prison under a private contract.

In response to the "apples and oranges" problem, the Hamilton County Commission, in deciding to renew the contract, considered some costs and benefits that were not quantifiable. For example, the contractor carries $5 million in liability insurance. In the event of a successful lawsuit, an indemnification clause in the contract could save the county (and perhaps the commissioners personally) a considerable but unpredictable amount of money. The added staff training, new inmate classification system, computer records management, and other improvements introduced by the contractor would also have cost the county money not included in the auditor's calculations.

In addition, commission members said the contractor provided better management and more professional training than previously existed and spared county officials many of the daily hassles involved in running a prison. Grand jury reports were all positive after the contract began, thus eliminating the time and expense required of the county to correct the sorts of problems criticized by earlier grand juries.

Two benefits in particular make the contractor-operated facility not truly comparable to the county-run operation: new physical improvements and

Table 2.

Hamilton County Penal Farm Costs: Estimated Cost of County Operation vs. Contractor Operation—Fiscal Years 1985 Through 1987

	1985–1986	1986–1987	1987–1988
County operation	$2,853,513	$3,413,741	$3,642,464
(per diem)	($25.05)	($25.71)	($27.49)
Contractor	$2,746,073	$3,312,428	$3,346,300
(per diem)	($24.10)	($24.95)	($25.25)
Savings	$ 107,440	$ 101,313	$ 296,164
(as percent)	(3.8)	(3.0)	(8.1)
Prisoner days	113,928	132,788	132,514
(avg. pop.)	(312)	(364)	(363)

the added service gained by splitting the superintendent functions from the warden function.

The county benefited from $1.6 million in new construction handled by the contractor. The cost for this is factored into both sides of the analysis. However, if the county had bid the construction itself (i.e., had there been no contract), the cost almost certainly would have been higher. Inmate housing constructed by the county in 1981, for example, cost approximately $65 per square foot. The contractor's cost to construct inmate housing in 1985 was $48.62 per square foot. Thus, for the price assumed on both sides, the county would not have been able to add as much housing without the contract.

In addition to the new construction, the contractor invested capital and labor in repair and preventive maintenance of every aspect of the physical plant, including plumbing, heating, and electrical systems, which it received in a deteriorated state. This cost was included in the contractor's fee, but the analysis does not estimate the cost of such extra repairs and maintenance under county administration.

The contract added human as well as physical capital. Under the contract, the county has two full-time managers (each with a secretary) performing three functions: warden, superintendent, and monitor. Without the contract, the county would have only one person (with one secretary) to perform as both warden and superintendent, and it would have no monitor. It should be emphasized that monitoring is not just an added cost; it is an added benefit as well. The monitor adds a new element of independent review of disciplinary and other decisions, which protects due process, and an onsite supervisor and regulator to ensure the quality of operation.

The county has also gained expertise. The warden under the county had no prior correctional background, while the warden under the contract is a man with considerable experience in corrections. The county on its own would have been unlikely to attract comparable candidates for that position. Moreover, the Hamilton County facility now has behind it the experience and expertise of the contractor's top corporate officers, who oversee the operation of over a dozen such facilities around the country.

As this study shows, the prison operation that Hamilton County has under private contract is not the same as it would have had otherwise. By contracting for its prison management, the county has apparently received more and better prison services for less money.[8] **NIJ**

Notes

1. George Camp and Camille Camp, *The Real Cost of Corrections: A Research Report* (South Salem, New York: Criminal Justice Institute, 1985).

2. William D. Berry and David Lowery, "The Growing Cost of Government: A Test of Two Explanations," *Social Science Quarterly* 65 (1984): 735–749.

3. Under private operation, the contractor carries heavy insurance and indemnifies the county against potential costs of litigation and legal damages.

4. *Corrections Compendium*, November 1986. This source did not indicate whether the $30.26 per prison day included capital costs.

5. U.S. Department of Justice, *1984 Census of State Adult Correctional Facilities* (Washington, D.C.: Bureau of Justice Statistics, August 1987), tables 18 and 31 (combining data).

6. Actual payments to the contractor are lower, on an average, than the basic per diem fee, because a lower fee is charged for offenders convicted of drunk driving.

7. Another aspect of the methodology understates the savings in percentage terms, though not in dollar amounts. Certain costs (items 12–15 in table 1) are continuing, noncontracted county costs. They are paid by the county directly and would be the same whether the prison was contracted or not. These costs are included in table 1 (and therefore in table 2) to show as complete an accounting of the county's total correctional costs as possible. In table 2, these costs were included on both sides of the comparison, but they might just as well have been subtracted from both sides. Had that been done, the dollar differences between contracting and direct county operation, shown in table 2, would have been the same in all 3 years. However, the percentage savings under contracting would have been 4.3 percent, 3.3 percent, and 9.1 percent, instead of 3.8 percent, 3.0 percent, and 8.1 percent. When this effect and the salary adjustment effect are combined, the new figures on savings for the 3 years are 4.3 percent, 7.9 percent, and 13.1 percent.

8. For a detailed discussion and evaluation of operational changes at the prison, see Samuel Jan Brakel, "Prison Management, Private Enterprise Style: The Inmates' Evaluation," *New England Journal on Criminal and Civil Confinement* 14 (Summer 1988): 175–244. For further reading on costs, see Douglas C. McDonald, "The Cost of Corrections: In Search of the Bottom Line," *Research in Corrections* vol. 2, no. 1 (Boulder, Colorado: National Institute of Corrections, National Information Center, 1989).

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