A Rural Community Developer's Guide to Jail Alternatives and Costs

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Volume 32, No. 2 pg. 354 2001.

Many rural community leaders and citizens periodically face once in a lifetime decisions regarding whether or not to build a new jail or to pass a jail bond. Such decisions are important because they often involve factors that influence community security and livability. However, because these decisions only occur periodically, they may challenge the normal realm of community practitioner expertise and knowledge. This study was designed to identify frameworks, methods, and cost estimates for a sample of rural jails to assist community development practitioners who may be asked to facilitate local jail discussions and to develop information to assist in rural community jail decisions.

The Community Development Practitioner Context

Historically, rural community development has focused on economic issues such jobs, income and economic growth to bring prosperity to rural communities (Summers, 1986; Wilkinson, 1989). One reason is rural economic conditions have lagged behind those of metro areas (Luloff and Wilkinson, 1990; Pulver, 1994). Others (Hart, 1995; Castle, 1993) argue that rural community development practitioners must address social and environmental problems. In more recent years, some community development practitioners have sought to sustain development by reversing negative community trends and by creating more livable communities (PCSD, 1996).

Negative trends may show up in any one of more than a dozen economic sectors as well as a similar number of interrelated social networks of the community. Sustaining community development requires that attention be given to the community's priority concerns and attributes. Such priorities often represent complex sets of multiple-faceted tasks. In rural communities, effective decision-making is often thwarted by a lack of information, access to technology, and an eroding base of voluntary leadership. Unfortunately, once choices have been made and physical and social infrastructure built, reversing mistakes is difficult and costly (Hosler, 1998).

Community livability is influenced by the perceived security, level of justice, and incidence of social problems, which are in turn influenced by the related effectiveness of local courts, law enforcement, jail services, and programs for prevention, intervention and rehabilitation. State constitutions often articulate legal principles of equal access to justice and equal opportunity, including those who live in rural areas (ISCC, 1996). However, increasingly the real rural reality has become the subject of debate.

New state and federal crime laws implemented during the 1990s increased penalties for a variety of crimes and were followed by efforts to "beef up" local law enforcement (Petroski, 1997). Criminal caseloads before the courts increased and some states expanding judicial positions (Edelman and Raun, 1995). While many states initiated construction of new state prisons, expansion of local jail capacity was typically slow to follow (Vestal, 1996). Until recent years, relatively less attention has been given to the impacts of state and federal policy changes on rural jails (Weinblatt, 1998) and in turn the impact of jail adequacy on community livability.

Many rural courthouses and jails are nearing the end of their useful lives. Many do not meet current ADA and other incarceration standards (CPTF, 1996). Since most architectural and bonding consultants receive fees based on the size of planned construction projects, community development practitioners can often be viewed as an independent source of information to verify basic assumptions regarding costs, structural alternatives, and experiences in other communities.

Concern over crime has been high nationally and incidence for certain kinds of criminal activity appears to be migrating to rural areas (ISCC, 1996). For example, meth labs often locate in rural areas to avoid attention and to gain access to storage of anhydrous fertilizer. Physical abuse more likely goes unreported in isolated rural areas. While research on incarceration as an effective crime deterrent is important, adequacy of jail space and the proximity between local jails and the courtroom can also influence the nature of sentences, the ability of law enforcement to serve warrants, and judicatory opinions regarding equal access to justice.

Leading up to this study, some state leaders, interest groups and consultants had been promoting consolidation and packaged plans for regional jails (Gardner, 1992). While initiatives have

collected statewide data on community jails (CPTF, 1996), relatively little information and analysis continues to be available on jail costs and the economic feasibility of alternative jail strategies, particularly for small rural counties. Therefore as a practical first step in local decision-making, citizens and leaders of several communities became interested in examining existing local jail costs, economies of size, and alternative jail strategies before significant long term public investments were made on community jail decisions.

A Framework for Public Decisions

Other studies have examined expenditure functions and institutional innovation for local government units (Stinson and Lubov, 1982; Edelman and Knudsen, 1990; Otto and Edelman, 1990). Research on expenditure functions for smaller units of local government often faces major obstacles due to unique differences in the local mix of services provided, differences in production techniques, and data limitations (Stinson and Lubov, 1982). Therefore, community development practitioners must often start only with a framework for analyzing the local service alternatives and then develop their own cost estimates based on local sources of information.

Other studies have outlined indirect benefits from jail service expansion such as added jobs, increased food sales, inmate visitor expenditures and indirect social costs such as unsavory visitors, inmate releases, and increased monetary costs for related social services of inmates and their families (Swenson and Otto, 1996; DLR Group, 1998).

State prisons house only inmates that have been tried and convicted of serious crimes. Prisons are reserved for a state's more violent prisoners with long-term sentences. In contrast, community jails house wide variety of persons, including those who may be under the influence of drugs or alcohol, those who are accused but not yet convicted, post-trial inmates on work release and less violent inmates with temporary or short-term sentences. Local jails are primarily constructed with the use of local revenues. Because of relative isolation and low volumes of criminal activity, the ability to integrate jail services with other law enforcement responsibilities becomes a relevant issue that can affect jail service efficiency and inmate costs. Such costs and perceptions of efficiency can play a critical role in community decisions regarding jail service options and jail bond decisions. Thus, prison studies, design

standards, and costs (Swenson and Otto, 1996) are different and not particularly relevant as a proxy for use in local jail decisions, particularly for dispersed rural counties with smaller, more antiquated jails.

Government accounting practices and jail service integration often mean that jail costs are never compiled or reported in a way that is conducive to quantitative analyses. Conceptually accurate and complete cost data for existing jails in rural areas are typically not available from secondary data sources. Jail facility, energy, insurance, and utility costs are often paid out of the general county budgets. Construction costs are paid from debt service funds. Deputies who devote time to jail services are often paid out of the law enforcement budget. Dispatchers who monitor inmates are often paid from the communication center budget. Revenues from housing jail inmates from other counties are often deposited in the county general fund. As a result, jail budgets typically represent a cost center for a relatively narrow scope of inmate housing costs that do not accurately reflect the comprehensive accounting for all revenues and expenses related to jail functions. Furthermore, different counties often handle similar expenses differently. As a result, any analysis of jail expenditure functions based on secondary data are suspect unless a thorough verification process has been conducted to assure appropriate interpretation during a comprehensive data collection process.

The objective of this study was: (1) develop a framework for analyzing local jail service alternatives and (2) to examine the implications of the various strategic alternatives by using local cost profiles estimated for a sample of eight rural jails. As community development practitioners, the researchers were asked to assist local officials in examining jail service alternatives and to provide a sense of the relative costs and probable consequences. With the help of law enforcement, other community development practitioners, and jail consultants, a framework of five alternatives were identified. Option one is to transport prisoners to other counties with jail space available. The second option is to expand an existing jail. The third option is to build a new jail designed to house the local inmate population. A fourth option is to participate in construction of a multi-county/regional jail. Option five is to build a new oversized jail for local inmates and outside prisoners from other counties, the state, and/or federal marshals.

Methods and Data

Iowa's Department of Corrections supplied jail capacity data for the sample selection process. Since the focus was smaller rural county jails, only jails with inmate capacity of less than 50 were included. Jails were arrayed according to size. Two jails were selected to approximate each of four size parameters: jails with 5-beds, 10-beds, 20-beds, and 40-beds. A sample size limit of eight observations and site visits was imposed by the intensive nature of primary data collection, funding, and time constraints. These limitations also prevented the use of more sophisticated regression analysis and large sample analysis techniques. Thus the value of this study is found in demonstrating the usefulness of the decision-making framework, level of interaction needed by community development practitioners in collecting an accurate set of data, and usefulness of the information provided to local decision-makers. Because of the sample size, study results should be viewed as a first attempt--rather than definitive step--toward solving local data and information needs for evaluating jail alternatives and costs.

Three objectives guided development of the survey instrument: (1) consistent collection of time and motion coefficients for accurately estimating costs and making comparisons across jails, (2) identification of constraints and structural differences in jail operations across the observations of jail size, and (3) identification of perceived needs, opportunities and preferences in community jail policy and management parameters.

Interviews were conducted with the sheriff and/or chief jail administrator of each county jail. Often key information for analysis was simply not available to the sheriffs and/or chief jail administrators, therefore additional data were collected from others, including county officials, local realtors, insurance brokers, etc. As a result, the data collection methods represent an engineering feasibility study approach to estimating the actual costs for each jail situation. In addition, officials from other counties recently involved in jail feasibility studies provided copies for review and corroboration (Durrant Architects, Inc., 1995; Kimme Planning and Architecture, P.C. et al, 1990; Plepla and Associates, 1996; Plepla and Associates 1997).

Table 1. Characteristics for a Sample of Eight Rural Iowa County Jails Selected by Size, 1997.

County/Beds	A-5	B-8	C-9	D-10	E-17	F-17	G-40	H-41	

County Pop. 1990	18,600	14,300	13,300	8,400	17,100	15,100	21,500	40,300	
City Pop. 1990	6,000	2,700	3,700	2,100	7,900	7,400	10,600	25,900	
Jail Inmate Capacity	5	8	9	10	17	17	40	41	
Inmate Days/Year	1551.25	2482	2792.25	3102.5	5274.25	5274.25	12410	12720.25	
System Structure	Shared Staffing	Shared Staffing	Shared Staffing	Shared Staffing	Full-time Staffing	Full-time Staffing	Full-time Staffing	Full-time Staffing	
Jail Staff FTEs	1.4	1.52	1.39	1.275	6.0	6.5	12.0	14.5	
Avg. Salary +Ben/FTE	$34,433	$25,324	$30,431	$35,056	$15,343	$18,769	$27,500	$24,110	
Jail Area Gr. Sq. Ft.	720	1,200*	1,339	2,040	3,172	5,692	18,850*	14,599*	
Gr. Sq. Ft./ Jail Inmate Capacity	144	150	149	204	187	335	471	356	
Rent Rate $/Sq Ft/Yr	$6	$5	$5	$5	$6	$6	$7	$8	

* Based on approximation of dimensions by researchers during site visits.

Jail characteristics associated with the site interviews for the sample are presented in Table 1. In counties with shared staffing structures, labor for jail functions was highly integrated with emergency communications and law enforcement functions. As such, the structural differences provide a basis for further threshold analysis segmentation by grouping the smallest four observations and the largest four observations in the sample (Stinson and Lubov, 1982).

Estimated Costs for the Sample of Jail Observations

Two assumptions are used to estimate jail operating costs for the sample of jails. First, operating costs are based on 85 percent occupancy. Site interviews indicated that jails were typically full and/or overflowing on weekends and at 75 percent capacity during the week. Interview responses indicated that this typical occupancy rate did not appear to vary across jail size groups. Second, transportation is excluded from jail costs and estimated separately when appropriate. Transportation costs per inmate tend to be related to proximity to courthouses, other jails and the state prison entry locations rather than jail size.

The largest components of jail costs include labor, food, and building costs. Labor and food costs are considered variable operating costs. In this study, labor costs are based on time and wages for jail functions from interviews with the chief jail administrator/sheriff (Table 2). For shared-staff counties, only the time spent performing jail functions are allocated to jail costs. Benefits are assumed to represent 25 percent of the wages reported.

For six of the eight jails, food was purchased from external vendors. Jails that provided in-house food preparation exhibited higher labor costs and lower food costs than the other jails.

Annual utility costs for water, sewer, electricity and gas were typically not separately metered for the jail space and these expenses were often billed to the county supervisors and/or the law enforcement agency as part of the law enforcement budget. Variation in actual county estimates for selected items representing a portion of the jail utility costs ranged from $2.50 to $4.02 per inmate day. Local sheriffs and jail administrators suggested that utility costs are related to number of inmates and jail space. Therefore, total utility cost estimates were calculated based on a flat rate of $3.34 per prisoner day plus $2 per square foot of building space.

Interviews with jail administrators/sheriffs indicated that few jails have insurance costs separate from those of the law enforcement and/or the county, in part, because combined umbrella policies for multiple functions of government are often less expensive in comparison to the combined costs of individual policies for individual functions. Insurance brokers indicated that insurance premiums for jail facilities are a function of property and tort liability. A formula for calculating insurance costs based on building value, nature of use, and number of FTEs (full-time-equivalent employees) was developed after consultation with insurance industry brokers familiar with insuring local jails. The formula assumes $2 million in liability coverage.

Variation in cost of supplies from site visits ranged from $2.81 to $5.33 per prisoner day, but appeared to be unrelated to jail size. So, costs of supplies are pegged at $3.91 per inmate day.

Table 2. Estimated Operating Costs Per Inmate Day for Selected Rural Iowa County Jails by Size, 1997.

County/Beds	A-5	B-8	C-9	D-10	E-17	F-17	G-40	H-41	
Labor	$31.08	$15.50	$15.15	$14.41	$17.46	$23.13	$26.59	$27.48	

Food	9.00	11.25	9.00	8.25	7.51	3.00**	7.80	4.41**	
Utilities	4.27	4.31	4.30	4.66	4.54	5.50	6.38	5.64	
Insurance	1.02	.78	.72	.68	1.17	1.22	1.32	1.34	
Supplies	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	
Operating Costs Total/ Inmate Day*	**$49.28**	**$35.75**	**$33.08**	**$31.91**	**$34.59**	**$36.76**	**$46.00**	**$42.78**	
Annualized Bldg Cost	$4,320	$6,000	$6,695	$10,200	$19,032	$34,152	$131,950	$116,792	
Opportunity Costs Bldg / Inmate Day	$2.78	$2.42	$2.40	$3.29	$3.61	$6.48	$10.63	$9.18	
Total Cost / Inmate Day	**$52.06**	**$38.17**	**$35.48**	**$35.20**	**$38.20**	**$43.24**	**$56.63**	**$51.96**	

* Does not include deputy time and transportation cost of prisoners between jails and court services.
** In-house food preparation is attributed to lower food costs and higher labor costs.

Building costs for existing facilities are typically estimated using an opportunity cost principle. Rational economic decision-makers want to recover their "full costs" for existing jails, which means they not only want to "break-even" with operating cost, but they also want to receive a return on their building investment comparable to a return that would be received for the next best opportunity. To calculate opportunity costs, an estimate of jail space per inmate was multiplied by a prevailing local rental rate for good quality commercial space. These rates were determined through interviews with realtors located in the communities where each jail was located. The opportunity cost methodology can be helpful in setting rental rates for jail space if other counties wish to rent space to house their inmates in an existing local jail facility.

While the sample size is too small to make definitive conclusions beyond the sample of observations, a U-shaped cost curve is implied by comparison of operating costs over jails of increasing size (Table 2). The costs range from a high of $56.63 per inmate day to a low of $35.48 per inmate day for a range of $21.15. The range represents 48 percent of the mean of the sample, indicating a broad variation in costs. Total costs for the smallest and largest jails exceeded $50 per inmate day, while mid-sized jails were below $40 per inmate day.

As noted in Table 1, all of the jails with 10 or fewer beds rely on shared staffing systems. Using dispatchers to perform monitoring duties frees up the use of deputy time. Deputy time is more expensive. Deputies are still used when needed for jail functions, but this allows most of their salary costs to be charged to other non-jail budgets. Visual monitoring of jails with shared staffing requires 5 to 10 minutes of dispatcher or deputy time per hour. This factor alone accounts for much of the economic efficiency and competitiveness of the smaller jails. The remainder of the non-jail shared-staffing time is charged to law enforcement budgets or communications services--functions still required in the absence of a local jail.

The labor costs per staff FTE shown in Table 1 are higher for the smaller jails. Smaller jails tend to rely more on deputies who are typically paid up to $10,000 per year more in comparison to full-time jailors. Interviews confirmed this variation in annual salaries between jailors and deputies across counties. In addition, the use of part-time employees accounted for some of the FTE and average salary differences for the larger jails.

Other studies (Stinson and Lubov, 1982; Edelman and Knudsen, 1990) imply threshold size economies are likely to exist even with integration of staff functions. In the sample of jails, the five-bed jail presented higher costs per inmate day than the 8, 9 and 10-bed jails but used similar staff FTEs. However, the threshold results are inconclusive. Labor costs are spread over fewer inmates in the 5-bed jail, but this observation also uses higher cost deputies for monitoring of inmates. Site interviews also support the notion of wide variation in wages across rural counties, depending on community size and proximity to regional metro labor markets.

Rural Implications of Mandatory Full-Time Jail Staffing

Presently, 30 Iowa counties have jails with 10 or fewer beds and 61 have jails with 20 or fewer beds. Table 3 shows the impacts on threshold economies of size if a recent legislative proposal to mandate full-time staffing structures were enacted on a hypothetical 10-bed jail. If communications dispatchers are not allowed to provide 24-hour monitoring of security, a minimum staff of 6.0 FTEs is required--one person for 24-hour supervision seven days a week plus 1.8 FTEs for other jail functions.

Table 3. Comparisons of Costs Per Prisoner Day for Shared and Full-time Staffing Structures.

	Shared Staffing 10-bed Jail	Full-time Staffing 10-bed Jail	Full-time Staffing 17-bed Jail
Labor Costs/Inmate Day	$14.41	$30.76	$17.45
Other Operating Costs/Inmate Day	$17.50	$17.50	$17.50
Operating Costs Total/ Inmate Day	$31.91	$48.26	$34.95

Imposing a full-time staffing requirement results in a doubling of labor costs per inmate day for the 10-bed jail. The 10-bed jail becomes uncompetitive compared to the 17-bed jail. The operating costs per inmate day for the 17-bed jail would be 27 percent lower than the 10-bed jail with full-time staffing. Thus, the full-time staffing bill would have increased the jail size threshold for which economies of size could be achieved. Jail operating costs likely would have increased for a relatively large number of small jails in Iowa's rural communities. The affected jails would have faced higher costs. In turn, they would likely have considered shutting down and transporting inmates to larger jails in the short run and/or jail expansion longer term.

Comparison of Composite Small Jail Costs to Larger Incarceration Facilities

State and local decision-makers may wonder how the costs of small jails in rural communities compare to costs of larger jails with over 50 beds and state prisons. A perspective on this issue may inform decisions relating to (1) whether or not development of multi-county or state and local partnerships should be considered for housing short-term or less violent state prisoners in community correction facilities, and (2) whether or not it is feasible to construct oversized facilities to house inmates from neighboring counties.

A composite of costs for the sample of small jails is compared to costs from architectural feasibility studies of planned incarceration facilities (Table 4). Because of structural differences among jails in the sample, only jails with 17 to 41 beds are included in the composite for small jail costs. In addition, the sample of existing smaller jails contains older jails that do not meet minimum space

standards for inmates in newly constructed jails. Jail design and inmate space assumed for composite cost estimate are based on a review of planned space contained in several feasibility studies for new jails with less than 50 inmates.

Longer-term strategic jail service provision decisions imply that facility costs are not fixed. Therefore, in place of opportunity cost calculation methods, a pre-construction financial cash flow projection is developed. The financial costs included in Table 4 are based on the construction costs reported for each facility financed using 20-year bonds at 6 percent interest. It should be noted that after the bonds are paid off, total cash flow costs decline. For the remainder of the facility's 40-year useful life, total costs are limited to operating costs plus building repairs. For the small jail composite, a review of studies indicated that $125 per square foot and 400 square feet per inmate were reasonable space design standards for new small jail projects at the time of this project (Vestal, 1996; Durrant Architects, 1995).

The composite costs for construction and operation of the small jail are fairly competitive with a new 750-bed minimum-security state prison and with at least one of the larger jails. Some potential opportunities for state and local savings may exist for housing state minimum security inmates in smaller local jails and for housing inmates from some other counties. However, the composite methods mask the variability that can exist, therefore economic feasibility should be examined on a case-by-case basis due to variation in local costs and circumstances.

Comparison of the two large jails shows a wide range in estimated costs. This variation calls into question conventional wisdom regarding economies of size for jails with more than 50 beds. Casual observation suggests 324-bed jail decision-makers should consider transporting inmates out to neighboring county jails, if they are presently not doing so. However, once it is known the county

currently transports inmates long distances, then the 324-bed jail option may still be the most feasible strategy for minimizing local jail costs when transportation and daily rates charged by host counties are analyzed. The lower facility costs of the 324-bed jail are due to rehabilitation and conversion of an existing warehouse into a jail facility.

Operating costs for the 110-bed jail reported in the 1992 feasibility study are adjusted for inflation. Even so, the researchers consider the food costs reported under "Other Operating Expenses" for the 110-bed jail (Table 4) to be a little low and unrealistic based on other studies reviewed. Thus, the range in costs for the large county jail studies reported might be overstated.

Table 4. Comparison of Composite Small Jail Costs to State Prison and Large Jail Costs, 1996-97*.

County	Small Local Jail 17-41 Bed Composite 85% Occupancy	State Prison 750 Bed Capacity 100% Occupancy	Local Jail 324 Bed Rehab. 85% Occupancy	Local Jail 110 Bed New Const. 85% Occupancy
Labor/Inmate Day	$23.66	$32.67	$48.52	$24.09
Other Operating Expenses	$16.37	$16.64	$17.88	$ 8.95
Operating Costs/ Inmate Day	$40.03	$49.31	$66.40	$33.04
Cost per bed of Inmate Capacity	$50,000	$46,666	$32,654	$51,555
Annual Bldg Cost/ Inmate Day	$11.94	$11.15	$ 7.80	$12.31
Total Costs/ Inmate Day	$51.97	$60.46	$74.20	$45.35

* Adjustments made for inflation based on CPI.
Sources: Katsamples and Plepla, 1992; Stevens, 1996; and Swenson and Otto, 1996.

One of the studies reviewed (Katsamples and Plepla, 1992) reports inmate-to-staff ratios and square footage per inmate for nine different jail feasibility studies for jails with more than 50 beds of capacity. The ratio of inmates to staff ranged from 4.3 inmates per staff FTE to 2.2 inmates per staff FTE. One level of staffing essentially represents a doubling of staff requirements planned for the other facility. The planned gross jail space per inmate ranged from a low of 191 square feet per inmate to

657 square feet per inmate. Neither ratio was related to jail size in terms of inmate capacity. With this level of variation in the major elements of the costs for larger and more urban jails, any conclusions regarding economies of size in larger jails cannot be definitive—beyond a case by case analysis of jails in a relevant region.

Transportation Costs and Inmate Housing Rental Rates

Community development practitioners wishing to analyze the relative feasibility of transporting inmates to other jails or the demand for jail space provided to inmates from other jurisdictions must develop information on transportation costs and inmate housing rental rates for the relevant market region. An estimate of deputy time and vehicle costs for transporting prisoners to neighboring counties can be calculated assuming a 60-mile round trip between jails (Table 5). This estimate is based on the number of trips to neighboring county jails and inmate days generated in two county jail feasibility studies. Based on the assumptions for distance and salary, transporting prisoners adds $10.08 per inmate day on top of the housing costs paid by the county transporting prisoners out to the neighboring county. Site interviews indicated that as jail space becomes short, distance to available inmate housing increases and inmates become more scattered at distant locations.

Table 5. Cost of Transporting Prisoners to Neighboring Counties.

Item	Transportation Costs
Deputy: 2 hr/trip @$15.00/hr.	$30.00
Auto: 60 mi./trip @ $0.315/mi	$18.90
Cost/trip	$48.90
Cost/prisoner day	$10.08*

* Assumes each prisoner transported an average of one trip for every 4.85 days.
Source: Hall and Johnson, 1994.

In 1996, the Iowa Corrections Planning Task Force (CPTF, 1996) conducted a survey of county jail officials on rates charged to house out-of-county prisoners. Among the 80 responses statewide, rates ranged from $35.00 per day to $78.93 per day. Forty-two counties charged $50 per inmate day and the average was $49.94 per day. A data limitation is that not all jails reporting data have extra space to rent. Informal anecdotal evidence suggests jails that do have extra space are more likely to charge above the average. For comparison, the rental rates reported in the site interviews for the sample of small jails are presented in Table 6.

Table 6. Rates Charged for Housing Prisoners for Other Counties, 1996-97.

County/Beds	A-5	B-8	C-9	D-10	E-17	F-17	G-40	H-41	
Housing Rent / Inmate Day	$50	$40	$40	$50	$50	$50	$55	$65 * $48 **	

* Rate for other counties.

**** Contract rate for federal prisoners.**

Time and costs for law enforcement to identify available space and transport inmates between jails, court services, and state correction facilities could be reduced with new telecommunications technologies. Site interviews confirm the potential for telecommunications to alter the economies of size and transportation relationships in rural counties. Electronic data and video communications (Internet, Iowa Communications Network, etc.) could potentially become a significant tool in the conduct of inmate hearings from remote sites as determined to be judicially appropriate and in organizing a statewide market for inmate housing.

Analyzing the Community Jail Alternatives

The implications for local policy can be examined using the parameters from this study for illustration. However such parameters should be localized to specific plans, if possible, because key factors like space per inmate and jail design are key determinants of construction costs and jail efficiency. The framework of jail alternatives identified for this study includes: (1) transporting inmates to other county jails, (2) expanding an existing jail, (3) building a new jail to house local inmates, (4) participating in a multi-county regional jail, and (5) building a new oversized jail for local inmates and those from other counties, the state, and/or federal marshals.

The decision on whether or not to transport prisoners in or out from a neighboring incarceration facility depends on three variables: (1) total financing and operating costs per inmate for the local jail, (2) costs for transporting inmates to and from neighboring jails, and (3) the rental rates charged to house inmates in the local jail and neighboring jails.

The decisions on construction of a new jail or a jail expansion can be analyzed by comparing the composite total financing costs for the small jail sample (Table 4) to the combined cost of transportation (Table 5) plus rent for jail space charged by a neighboring jail (Table 6). If local costs are lower, construction or expansion of the local facility is optimum. If local costs are higher, than development of longer-term contracts to house local inmates in neighboring facilities is more likely to be optimum.

Some counties have considered the construction of extra jail space to house outside prisoners (Edelman, March 1996). While other indirect social costs and benefits should not be ignored, this option potentially may raise extra revenue sufficient to lower the jail service costs financed by local taxpayers--depending on the occupancy and rental rates charged to other counties. Assuming standard occupancy rates, the composite small jail total costs (Table 4) shows this alternative is potentially an

optimum choice if the housing rate locally charged was more than $51.97 per day. If this is the case, a more precise marginal analysis is in order.

For some jail designs (Edelman, March 1996), the second 20 beds built in a 40-bed jail are less expensive than the first 20 beds because they can be added by constructing a second floor or building extension. The marginal construction, financing, and operating costs per prisoner for the second 20 beds represents a more precise break-even cost in deciding whether to build an oversized jail or to simply build a jail sized for local needs only. If the rate charged for housing out-of-county inmates is greater than the marginal costs for the second 20 beds, a profit contribution from the less costly second 20 beds will help lower the local taxpayer costs of the first 20 beds used by local inmates.

A key factor in the pre-construction analysis is the projection for inmate populations locally and for the region. Similar to prison populations, local incarceration rates are projected to increase. One study projects the incarceration rate to nearly double in 20 years based on trends in five comparable rural counties. Based on this assumption, a 20-year cash flow model (DLR Group, 1998) shows building a jail sized for current inmate population (24 beds) and transporting the inmate overflow out costs 53 percent more than building a jail sized for future inmate population needs in 20 years (48 beds) and using the extra space to house inmates from other jurisdictions during the early years ($21.6 million compared to $14.1 million).

Of course, the success of this strategy depends on the projection's accuracy. Because of the risks for policy changes and market conditions, local officials making such pre-construction decisions should consider ways to lock in long-term contracts for space, construction incentive grants and housing rates with those who would be interested in housing their prisoners in the local jail. Federal marshals typically provide long-term contracts and may participate in construction by paying a share of

construction costs. State government and other counties potentially could do the same. Local politics often prevents investing in jails located outside the county--which has been a barrier to the development of multi-county regional jails.

Summary and Implications

A framework and method for collecting local data was applied during site visits to eight rural counties. Jail capacities ranged from 5 to 41 inmates. Jail housing costs for 1997 were estimated and analyzed to evaluate the framework of local jail service alternatives. Costs varied by $21.43 per prisoner day, from a low of $35.20 per prisoner day for the 10-bed jail to $56.63 per prisoner day for the 40-bed jail. The threshold for achieving size economies was smaller than expected in the sample of observations due primarily to the shared-staffing systems and variation in square footage of space per inmate found in the existing smaller jails.

Transporting inmates to a neighboring jail in a contiguous county adds an estimated $10.08 per prisoner day to housing costs incurred by the county that is transporting inmates. Costs increase as inmates are transported over longer distances to jails in noncontiguous counties. Rental rates in the sample of local jails for housing out-of-county inmates vary over $25 per inmate day. The variation is consistent with a more extensive 1996 statewide survey.

Site interviews indicated that accounting practices used in the sample of local jail counties fail to match expenditures and revenues for jail functions. This results in a lack of management information and incentives for efficiency. No single department and/or budget is responsible/accountable for all jail accounting functions. Community development practitioners may potentially contribute to more efficiently managed jails and strategic jail decisions by assisting local leaders with the developing improved jail management information systems.

In the final analysis, transporting prisoners to neighboring counties, expanding existing jails, building efficient small jails sized to community needs and building oversized jails to house inmates from other jurisdictions are all potentially feasible, given the range of jail costs found in this study. Feasibility depends on distance, local costs, and circumstances in the market region.

Since the release of this and other studies, mandatory jail staffing proposals have been dropped and voters in two counties have approved construction of oversized jails to house prisoners for other jurisdictions. In addition, the director of state corrections endorsed the concept of state-local partnerships to add space for housing some state inmates to county jails. Since this study finds sufficient variation in costs for all such opportunities to exist, a case-by-case analysis process by is warranted to determine relatively feasibility given local jail costs, transportation distances, and the rental rates charged. Community development practitioners potentially represent a source of relevant information and facilitation skills that could enhance the community decision processes.

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