

The Prison Industry: Carceral Expansion and Employment in U.S. Counties, 1969–1994*

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Objectives. Despite the interest that social scientists have displayed in the rising rate of incarceration, little attention has been devoted to understanding its consequences for local areas. This is an important omission because prison construction has become a component of state and local economic development schemes. Indeed, there is a widespread belief that prison construction provides significant economic benefits to local areas. *Methods.* We analyze data on all existing and new prisons in the United States since 1960 and examine the impact of these prisons on the pace of growth (as measured by public, private, and total employment growth) in U.S. counties from 1969 to 1994. To our knowledge, our study is the first comprehensive and longitudinal assessment of the impact of prison construction on local areas. *Results.* We find no evidence that prison expansion has stimulated economic growth. In fact, we provide evidence that prison construction has impeded economic growth in rural counties that have been growing at a slow pace. *Conclusion.* Despite sharp ideological and intellectual differences, the critics and the advocates of the prison construction boom share the assumption that prisons can contribute to local growth, especially in hard-pressed local areas. This belief flies in the face of mounting evidence that state and local initiatives rarely have a significant impact on growth; this belief is also contradicted by our analyses.

Director Gomez [Director of the California Department of Corrections] agrees that prisons are like military bases, a steady source of income and employment.

Neumann (2000)

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[Prisons] don't pollute, they don't go out of business, they don't get downsized.
David Lamb in Dyer (2000:16)

Since the 1970s, the United States has mounted an aggressive campaign to incarcerate, tripling the number of prisons and prisoners. Not surprisingly, criminologists have studied the causes and consequences of this sharp jump in incarceration (Tonry, 1999; U.S. Department of Justice, 1999). Other social scientists have moved beyond the immediate concerns of criminology; Western and Beckett (1999) examined the impact of incarceration on employment trends and updated our understanding of labor markets by considering the consequences of placing so many people behind bars. In this spirit of moving beyond criminological concerns, our research examines the consequences of prison construction for local economic growth.

Despite the interest that social scientists have displayed in the rising rate of incarceration, little attention has been devoted to understanding its consequences for local areas. This is an important omission because corrections officials and many state and local policymakers present prisons as a panacea for struggling local economies. Due to a widespread belief that prison construction provides significant economic benefits to local areas, local areas compete to attract new prisons—and this competition may provide momentum for further prison construction. The belief that prisons stimulate growth is so strong that a town in Illinois “put together a rap song and purchased television time as part of a public relations blitz for state legislators considering where to locate a new prison” (Donzinger, 1996). In Texas, “students in a Sunday school class reportedly got on their knees and prayed that a new prison would open in their neighborhood” (Lotke, 1996).

We collected data on all existing and new prisons built in the United States since 1960 (U.S. Department of Justice, 1998) and examined the impact of these prisons on employment growth in U.S. counties from 1969 to 1994. To our knowledge, our study is the first comprehensive and longitudinal assessment of the impact of prison construction. We begin with a review of existing accounts of the prison-building boom that emphasizes two issues.

1. How is prison building linked to larger conceptualizations of local economic development?
2. Do these accounts anticipate that prison building spurs economic growth?

There are two views of the current prison-construction boom. The view that is prominent in public policy debates—and shared by both advocates and critics of prison construction—assumes that prison expansion contributes to economic development. Although less prominent in public debate, many students of local economic development doubt that state and local governments can alter the trajectory of growth. At the same time, these scholars recognize that the political climate compels state and local leaders to

overstate (and take credit for) economic benefits (Dewar, 1998; Wolman and Spitzely, 1996). Leading a highly visible campaign to attract a prison provides local politicians with an opportunity to demonstrate their commitment to economic development—even if the prison fails to provide the promised economic benefits. By providing an empirical examination of the impact of prisons on local growth, our research informs debates over local economic development schemes and the role of state and local governments. Our research also adds to the growing body of literature that explores the consequences of high and growing rates of incarceration in the United States.

Carceral Expansion and Local Growth

Between 1980 and 1998, the prison population in the United States grew from 329,821 to 1,302,019—an increase of almost 400 percent (U.S. Department of Justice, 1999)—translating to an incarceration rate of 668 prisoners per 100,000 citizens. In the 1990s, the federal prison population doubled; in the early 1990s, an average of three 500-bed prison facilities opened *each week* in the United States (Schlosser, 1998). These statistics mask even more remarkable developments at the state level; between 1973 and 1998, New York State's prison population increased from 12,500 to more than 69,000. Similarly, in the last 20 years, California has built 21 new prisons and increased its inmate population eight-fold (Schlosser, 1998; U.S. Department of Justice, 1999). Commenting on these trends, Tonry concludes that "American imprisonment rates did not rise simply because crime rates rose. They rose because American politicians wanted them to rise" (1999:422).

Most observers would agree on two points: (1) it is essential to look behind the punitive functions of prisons; and (2) advocates of prison construction are often pursuing a larger agenda when claiming the economic benefits of prisons. But the consensus ends here. Some observers are persuaded that prison construction makes a tangible contribution to local economic growth. Although the construction and expansion of a prison is unlikely to impact a large labor market, such a facility may well alter the dynamics of a small, stagnant economy. Those who believe that prisons are a boon to local economies often disagree sharply on other issues. Most important, some advocates of prison construction see economic benefits as a fortuitous byproduct of an appropriate effort to get tough on crime (Silas, 1984). Although critics of the prison-construction boom anticipate tangible economic benefits, they lament that, once a prison is built, there is pressure to fill it. Whether advanced by proponents or critics of prison construction, the assertion that prisons spur growth is contradicted by a number of scholars who study economic development and find that state and local interventions often fail to promote economic development. If programs specifically designed to promote growth frequently fail, it is very unlikely that prisons could provide a boost.

The Case for Carceral Expansion Contributing to Local Economic Development

Prisons look very attractive to hard-pressed communities; the belief that prisons can revive stagnant rural economies has changed the politics of prison siting. Whereas local resistance was once routine, many hard-pressed communities are currently competing to attract a prison: “We don’t have to sell it to a community. The community is knocking on our door . . . It used to be ‘not in my back yard’. Now, they want it in the front yard” (Jimmy Turner, Vice-President of Operations, Corrections Corporation of America, in Erskine and Graham, 2000; see also Gaseau, 1999; Julien, 1998; McDonald, 1999; Neumann, 2000). It is widely believed that the flow of federal funds on the basis of population provides a significant advantage to rural communities in which prisons are located. Donzinger (1996) notes that between 1980 and 1990, prisoners—most of them African-American and Hispanic prisoners from urban areas—accounted for 5 percent of the entire increase in rural populations in the United States. The rural and predominantly white areas in which most prisons are located increase their share of federal grants and political representation; the impoverished urban communities that these prisoners leave behind lose funds and representation.

Bartik argues that tax incentives and infrastructural investments made by state and local governments “can significantly affect the growth of a state or metropolitan area [and] that increases in the growth of a local economy can benefit the unemployed” (1991:2). It must be borne in mind that building and operating a prison is distinct from the tax incentives and infrastructural programs Bartik reviewed. Prisons provide jobs to the people who build and operate them; prisons do not provide indirect benefits that impact on tax incentives and business climate. That said, Bartik also provides compelling evidence that a short-term shock to a local economy can have a long-run impact on a local labor market: “Due to faster growth, in the short run some persons in the area will obtain jobs who otherwise would be unemployed. In addition, some will move up to better jobs. The short run experiences of these persons change their values, skills, self-confidence, and reputation. In economic jargon, these short-run experiences increase their human capital” (1991:76). In this sense, the potential benefits of a new prison are two-fold. The construction of the prison provides a short-run shock with long-term benefits for local workers (including those struggling to find work), while the day-to-day operation of the prison provides a source of steady employment for local residents.

To date, most studies of the impact of prisons on local areas have concluded that building a prison results in an “inevitable economic boost” (Silas, 1984:27; see also Abrams and Lyons, 1987; Maxim and Plecas, 1983; Shichor, 1992). As we discuss below, most of these studies are descriptive and rely on a handful of selected study sites. For example, Lidman, Poole, and Roper (1988) examined dynamics in several different types of communities and included facilities constructed in the 1800s through the

1980s. Using a variety of measures, Lidman, Poole, and Roper (1988:6; see also Carlson, 1988) concluded: “Washington prisons contribute significantly to local economies.” But this study did not directly examine economic processes; it relied on the perceptions of business leaders (Lidman, Poole, and Roper, 1988:23). Several business leaders speculated that existing businesses increased sales when a prison was built. Although generally positive, the study also raised the possibility that prison construction might impede local growth if “communities with correctional institutions . . . [were] seen as ‘prison communities’” (Lidman, Poole, and Roper, 1988:3).

Even critics of the incarceration surge believe that prisons spur growth—but they lament that these economic benefits add momentum to building many more prisons than needed (Schlosser, 1998; Dyer, 2000). Davis (1998:416) uses the term “carceral Keynesianism” when explaining the active efforts of small towns in California to house prisons. With prisons sprouting across the small towns and rural areas of California, the people in these communities find employment by staffing prisons that incarcerate urban Californians. These same dynamics are at work in other states. Schlosser (1998) notes that the Governor of New York, Mario Cuomo, “turned the urban development corporation into a rural development corporation” that invested billions of dollars in upstate New York, primarily in the corrections industry. Of the 29 correctional facilities authorized during the years in which Cuomo held office, 28 were constructed in upstate districts represented by Republican senators. In addition to the more than \$1.5 billion that was spent to build correctional facilities, the prisons now contribute approximately \$425 million in annual payroll and operating expenditures in New York State (Schlosser, 1998). Many critics of the incarceration boom accept the premise that prisons create jobs. However, they use this to raise doubts about the motives of those calling for still more prisons (McDonald, 1999).

The Case Against Carceral Expansion Contributing to Local Economic Development

State and local governments have created policies and programs to promote local growth throughout the nation’s history (Eisinger, 1988). Since the 1970s, states and localities have been under increasing pressure to demonstrate their ability to influence growth. Due to the “absence of coherent national industrial policy, American states and communities have become the de facto engineers of development” (Grant, Wallace, and Pitney, 1995:143; see also Eisinger, 1988; Wolman and Spitzely, 1996). The visibility of prison construction makes this an attractive project for local officials pressured to demonstrate their efficacy. Our research considers and rigorously explores the possibility that—despite the visibility and popularity of prison construction—prisons have not delivered the benefits that have been promised.

A large body of research has raised doubts about the efficacy of state and local economic development efforts. When summarizing a decade of research published in *Economic Development Quarterly*, Wolman and Spitzely (1996) stress the ineffectiveness of subnational interventions and ask: "Why do [local government officials] do it, even though we tell them it does not work?" They answer their own question as follows: "[S]tate officials must focus on local economic development because it is the issue by which their performance and legitimacy are ultimately evaluated" (Wolman and Spitzely, 1996:131; see also Dewar, 1998).

For the most part, those who take a skeptical view of state and local economic development efforts and those who think these programs can be effective (see above) focus on indirect initiatives, that is, tax incentives, business subsidies, and infrastructural initiatives. But prison building is a direct intervention in the sense that the newly created jobs are based on the public expenditures. For this reason, military bases may provide an apt comparison to prisons. This comparison provides additional reason to question the purported benefits of the prison boom. It is true that high-tech national security installations have spurred lucrative spin-off industries and have contributed to regional growth (Markusen et al., 1991). However, prisons are more similar to military bases than they are to high-tech labs and facilities. Recent research provides no evidence that military bases have made a comparable contribution (Hooks, 2003). In fact, studies of base closures have found that many local areas grew at a faster pace *after* the base was closed and the facility converted to other uses (Bradshaw, 1999; Hill and Raffel, 1993).

Even if prisons do promote job creation, there are reasons to doubt that the residents closest to the prison will benefit. Many of the goods and services are procured from businesses outside the local area and much of the workforce commutes long distances. Especially in rural areas, it is likely that direct effects are dispersed and diluted. Larger prisons are even less likely to purchase locally because their orders are larger and more specialized. Thus, a new prison may precipitate churning within the lower skilled ranks of the local labor force without producing a net increase in employment. Based on a study of small towns across the country, Calvin Beale (1998; see also Johnson and Beale, 1998) doubts that prisons offer a solution: "Secure, well-paid prison jobs are highly prized by people in [rural counties], but it is questionable whether prisons will give rural communities a foundation for longer-term growth" (see also Glamser, 1996; Larmer, 1995).

Data and Methods

To date, studies of prisons have sampled only a handful of correctional facilities. Our research is designed to improve the current state of knowledge by creating a database that contains information on prisons across the country with a wide range of prison and community characteristics (see McShane, Williams, and Wagoner, 1992).

In recent years, a disproportionate number of prisons have been built in rural areas (Beale, 1998). For this reason, the unit of analysis must be one that allows investigation of both metropolitan and nonmetropolitan areas. As is the case with many prominent studies of regional processes, this study uses data for the approximately 3,100 counties in the contiguous 48 states (Hooks and Bloomquist, 1992; Lichter, McLaughlin, and Ribar, 1997; Lobao, 1990; Lobao, Rulli, and Brown, 1999). Counties provide comprehensive national coverage, spanning both metropolitan and nonmetropolitan populations. They offer advantages for comparative, cross-time analyses because their boundaries, unlike cities and labor markets, are highly stable. Because counties are smaller than states, they are less likely than states to obscure within-area differences and the resulting loss of information. Counties also have limitations. All spatial units raise concern about containment of social processes or diffusion effects between units; counties also are situated within other scales of government that influence internal relationships. We include controls for spatial diffusion effects and use models that account for nesting of counties within states.

Drawing on the *1995 Census of State and Federal Adult Correctional Facilities* (U.S. Department of Justice, 1998), we have gathered data on all prisons built in the United States. We explore three periods: 1969–1979, 1979–1989, and 1989–1994. As of 1960, there were 509 prisons in the United States. Between 1960 and 1969, an additional 107 prisons were built (representing an increase of 21 percent over the decade). During the 1970s, prison expansion proceeded at a comparable rate (149 prisons, representing a 24 percent increase). In the 1980s, however, the rate of prison construction accelerated. Three-hundred-twenty-four prisons were built—a 42 percent increase in the total number of prisons. From 1990 to 1995, 249 prisons were built (a 23 percent increase over this five-year period). We employ a 10-year lag between time periods to test for long-term development shifts at the local level. Finally, this study requires a detailed and consistent series of data, so that variables must be constructed from sources collected on a periodic or decennial basis. We make use of information provided in the *1995 Census of State and Federal Adult Correctional Facilities* to identify the number of prisons in existence at the beginning of the period and the number of prisons built during the time period under examination. Our research is restricted to adult correctional facilities (state and federal); it excludes juvenile correctional facilities.

Dependent Variables

Because jobs are the prize in contests to attract new prisons, we focus on employment growth. The *Regional Economic Information System, 1969–94 (REIS)* (U.S. Department of Commerce, 1996) provides employment data for each county on an annual basis. *REIS* compiles information from

published and unpublished federal data, as well as state reports (i.e., Social Security contributions, unemployment compensation, etc.). We developed three measures of employment growth: public, private, and total (the sum of public and private employment). As most, but not all, prisons are government owned and operated, they make a direct contribution to public-sector employment. We also explore growth in private-sector employment to assess the indirect impact of prisons on local areas. Finally, we examine total employment (public and private sector) to gain insight into general trends. Because *REIS* provides employment data for each year, we are able to measure employment change as the average annual change in public, private, and total employment over the period. For example, when measuring the change in private employment for the 1969–1979 period, we calculated the change in private employment for each year of the period (1969–1970, 1970–1971, etc.) and calculated the average across this 10-year period. This measure is superior to a simple change score using the beginning and ending years of the period because information from each year—and not simply the first and last years of a period—is included. As such, the influence of an exceptional beginning or ending year is moderated by the trends of all the years in the period.

Independent Variables

We are concerned with the impact of prisons—especially the impact of new prison construction—over the 1969–1994 period. To address this issue, it is important to establish whether or not a prison is present in a county at the start of each period and if a prison has recently been built. *The Census of State and Federal Adult Correctional Facilities* (U.S. Department of Justice, 1998) provides information on each adult correctional facility in the United States. We developed measures of the total number of prisons in a county a decade preceding each period and the number of prisons built in a county in the preceding decade. For example, in analyses of the 1969–1979 period, we include two measures of prisons: a count of all prisons in a county as of 1960 and a count of prisons built between 1960–1969. Comparable measures are included for the 1979–1989 and the 1989–1994 periods. These lagged measures of prison construction and growth serve as predictors of employment growth over the time period.¹

¹ For two reasons, our measurement strategy does not consider the size of each facility. First, the Bureau of Justice (BOJ) did not maintain a consistent methodology when it conducted a *Census of Prisons* in 1984, 1990, and 1995, and missing geographical data plagued the Censuses conducted in 1984 and 1990; only the 1995 *Census of Prisons* provided geographical information for each prison. For example, when working with the 1990 data, even after using external resources and in some instances calling individual prisons, we were unable to reliably place approximately 20 percent of the prisons into a county. Second, for the questions we are addressing, it is important to establish whether or not a prison is present in a county during an initial period and to examine the impact of this prison for subsequent

Control Variables

Social ecology and the new urban/rural sociology have been prominent in analyses of regional processes (Mencken, 1999). Social ecology emphasizes technological and “natural” influences on growth; the new urban/rural sociology places greater emphasis on political and institutional influences. Although not necessarily incompatible, these two theoretical traditions emphasize different dynamics (see Frisbie and Kasarda, 1988). We employ control variables reflecting both of these approaches. Control variables are derived from several different sources and are available according to the data-collection protocol of the agency collecting these data (e.g., population and other measures derived from the *Census of Population* are available once per decade). Each control variable is measured prior to or at the beginning of the time period examined.

Social Ecology. Agglomeration is one of the most persistent findings in regional analyses. Larger and more populated regions tend to be the centers of subsequent growth. In a similar vein, regions with greater affluence tend to grow more rapidly than less affluent regions. We have included two measures of agglomeration: *population* (natural log) (U.S. Department of Commerce, 1995). The importance of infrastructure is a second theme that emerges in the social ecology literature. Air transportation became increasingly important over the observed period. Those counties in which an airport is located have grown more quickly than counties lacking an airport (Irwin and Kasarda, 1991). The volume of *commercial aircraft activity* (natural log, U.S. Federal Aviation Administration, various) provides a measure of infrastructural development. Commercial banking assets are an important infrastructural resource that facilitates local growth. *Total bank deposits* in a county has been included in our models, with the expectation that this variable is positively associated with growth (FY 1982 dollars (millions), U.S. Department of Commerce, 1981, 1995). Social ecology embraces much of neoclassical economics in understanding regional processes. The government is seen as external to the economy and taxes are seen as an impediment to growth. A body of research suggests that employers are sensitive to the tax rate and seek regions with lower tax burdens (Frisbie and Kasarda, 1988; Plaut and Pluta, 1983). To control for the effects of local taxation, *per capita property taxes* (FY 1982 dollars) have been included in all models (U.S. Department of Commerce, 1981, 1995).

employment. Although each *Census of Prisons* provides information on the total number of inmates and the size of the staff, we can only extract information specific to the reporting years. Because we are concerned with the impact of prisons—especially the impact of new prison construction—over the 1969–1994 period, we have developed measures that provide greater precision concerning the existence and founding of prisons.

New Urban/Rural Sociology. The new urban/rural sociology draws on the Weberian and Marxist traditions, takes a critical view of regional processes, and draws attention to political processes and social institutions. In contrast to social ecology, the new urban/rural sociology points to the possibility that the state can facilitate local economic growth (Grant and Wallace, 1994; Hooks and Bloomquist, 1992; Mencken, 1999). The fiscal capacity of state and local governments enables them to build and maintain an infrastructure, thereby influencing the pace of economic growth. To control for the state's contribution to the local economy, we included the *total revenues* available to local governments (FY 1982 dollars (millions), U.S. Department of Commerce, 1981, 1995).

Other Control Variables. We also included several variables that are not specific to either of the major paradigms that have dominated sociological analyses of regional processes. It is probable that economic growth in a county is influenced by the state in which it is located. State governments deliberately strive to influence economic growth through a variety of programs and might influence local economies. We control for state context by inserting a *dummy variable for each state* except one (Virginia). Although for somewhat different reasons, both social ecology and the new urban/rural sociology anticipate that the skills and education of the locally available workforce influence the opportunities for economic growth. To control for human capital, we included the *percentage of workers with a bachelor's degree* (U.S. Department of Commerce, 1981, 1995).

In developing controls for employment structure of local areas, we draw on work by Lobao, Rulli, and Brown (1999; for comparable county-level studies, see Bloomquist and Summers, 1982; Lobao, 1990). We distinguish among the core manufacturing, core nonmanufacturing, competitive sector, and the state sector. The core (manufacturing and nonmanufacturing) refers to sectors associated with high wages and high levels of job security; low wages, few benefits, and high levels of job insecurity characterize the competitive sector. Our measure of the state sector includes employment in public administration, health, education, and welfare, that is, direct public administration and public services combined (see Hodson, 1978). To develop these measures, we identify employment by the two-digit SIC code. We developed four measures (each measure refers to percentage employment in the county): *core manufacturing*, *core nonmanufacturing*, *state*, and *competitive sector*.² We expect to find that core manufacturing is associated with employment growth in the 1970s, but this relationship becomes nonsignificant in the 1980s and

² *Core manufacturing* includes durable manufacturing (except furniture) plus printing/publishing and chemicals and allied products. *Core nonmanufacturing* includes construction, transportation services, communication services, and banking credit and other financial services. Most nondurable manufacturing (e.g., food, textiles) is in the *competitive sector*. The *state sector* refers to employees of federal state and local governments (see Lobao, Rulli, and Brown, 1999:594–95 for details).

1990s. Because low-wage jobs and service industries grew quickly over the 1970–1994 period, we expect core nonmanufacturing and competitive-sector employment to have a positive relationship with employment growth. Finally, we expect percentage employment in the state sector to have a positive relationship with public-sector employment growth, but an indeterminate relationship with total employment growth.

Spatial Autocorrelation. It is likely that growth or decline in one county influences economic processes in nearby counties. If a spatial process is unmeasured, there is a possibility that the results will be biased. As such, our analyses also address spatial autocorrelation (Land and Deane, 1992). Land and Deane have developed a procedure to efficiently compute estimators for spatial autocorrelation. This estimator or its variants are a common method of controlling for spatial autocorrelation in sociological studies using counties as the unit of analysis (Tolnay, Deane, and Beck, 1996). To calculate the spatial effects term, “each place is treated successively as the point of reference, and the sum of quotients of the [dependent measure] of every other place divided by its distance from the reference point is computed” (Land and Deane, 1992:227; distances have been computed using a standard trigonometric function and the latitude and longitude coordinates internal to each county). Then, the term created is regressed on all dependent variables in the model plus a set of instrumental variables. Following Land and Deane and other county studies, we use region and population measures as the instrumental variables.

Results

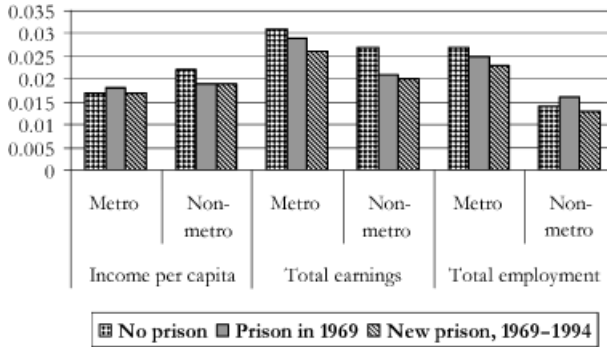
Our analyses are disaggregated by metropolitan and nonmetropolitan counties. Among urban counties, only 115 counties housed a prison in 1969. By 1994, prisons had been built in an additional 124 counties, while there is no prison in 442 urban counties. Among nonurban counties, the pace of prison construction has been even faster. The majority of rural counties (1,862) do not house a prison. In 1969, a prison was found in 135 counties. Between 1969 and 1994, prisons were built in an additional 267 counties.

Figure 1 provides a context for the multivariate analyses that follow. This figure displays the relationship between the presence of a prison in a county and several measures of well-being, including earnings, per capita income, and employment growth over the 1969–1994 period. For each measure of well-being, we have calculated the average annual change from 1969 to 1994.

The trends displayed in this figure provide little reason to believe that prison construction boosts local economies. Among urban counties, there is little difference in the average annual change in income per capita. There is a

FIGURE 1

Prisons and Average Annual Growth in U.S. Counties (Selected Measures), 1969–1994



visible pattern for earnings and employment growth. However, those counties without a prison have the highest annual rate of growth—and those with a newly built prison grew at the slowest pace. Nor does this figure suggest that prisons benefit rural counties. For both total earnings and income per capita, those rural counties without a prison grew at a faster pace. It is notable that employment grew more slowly in counties in which a new prison was built. The following analyses focus on employment and attempt to isolate the impact of prisons by introducing controls for other influences on county economic growth.

Determinants of Total Employment Growth in Metropolitan and Nonmetropolitan Counties

Table 1 presents the results of analyses of growth in total employment between 1969 and 1994 (disaggregated by metropolitan and nonmetropolitan). The Land-Deane spatial effects term is statistically significant for metropolitan counties in the 1969–1979 panel and for nonmetropolitan counties in the 1979–1989 panel. In both instances, the sign of the coefficient is positive, suggesting that the processes influencing employment growth diffuse among nearby counties. Overall it does not appear that spatial autocorrelation is distorting the findings.³ Other than the mixed role played by commercial bank deposits and per capita property taxes in promoting employment growth, control variables performed as anticipated.

³In addition to the analyses reported in the text, we also conducted ordinary least squares analyses without the Land-Deane spatial effects term. On the theoretically important findings, these analyses yielded very similar results to those reported in Tables 1 and 2 (results available on request).

TABLE 1

Determinants of Total Employment Growth in 792 Metropolitan and 2,264 Nonmetropolitan Counties in the Contiguous 48 States 1969-1994 (Two-Stage Least Squares)^a

	1969-79		1979-89		1989-94	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
Land-Deane spatial effects	-0.06 (0.10)	-7.84*** (2.13)	0.28* (0.13)	-1.56 (1.59)	0.23 (0.18)	2.32 (6.87)
Established prison	5.91 (12.61)	1164.56** (207.20)	-2.39 (11.31)	1589.45*** (185.56)	-11.54 (13.52)	-1045.44*** (176.09)
New prison	33.42 (28.83)	1984.78** (663.11)	-35.66 (30.76)	671.57 (463.57)	-27.32 (20.02)	-249.29 (543.74)
Core manufacturing ^b	-161.91 (171.80)	22519.68** (8993.52)	-250.80 (207.32)	17810.18* (8951.39)	-58.37 (380.41)	5260.40 (24394.66)
Core nonmanufacturing ^b	595.17*** (151.69)	19263.84 (9917.66)	541.63* (222.73)	20746.08 (10656.69)	885.45*** (246.40)	27347.02* (13896.56)
Competitive sector ^b	-261.43** (82.89)	12694.56 (8362.95)	385.76*** (95.30)	11806.20 (9061.79)	775.03*** (145.13)	14531.19 (17080.32)
State sector ^b	-17.59 (113.34)	551.48 (8919.22)	768.20*** (111.65)	6182.84 (9176.46)	684.69*** (195.43)	6812.92 (16319.48)
Commercial bank deposits	1.05*** (0.09)	-0.14*** (0.03)	0.53*** (0.09)	0.17*** (0.03)	0.63*** (0.08)	-0.50*** (0.03)
Commercial aircraft activity	233.05*** (25.79)	411.94** (158.07)	6.72* (3.13)	-50.35 (43.95)	31.74*** (4.50)	85.33* (43.40)

TABLE 1—continued

	1969–79		1979–89		1989–94	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
Per capita property tax	34.99 (42.46)	-4922.40 (18451.10)	40.25 (24.84)	4642.87** (1908.79)	109.70*** (26.46)	1445.73 (1583.25)
Percent of labor force with BA ^c	132.09 (82.45)	4428.40 (2608.87)	171.66*** (26.29)	-47.46 (942.10)	139.14*** (35.25)	650.08 (1085.95)
General revenues of local gov't	74.68** (31.15)	-1221.42 (866.95)	67.13* (30.69)	-2547.89** (877.53)	13.02 (28.44)	533.63 (756.71)
Total population	26.09 (31.22)	2891.04** (928.95)	-184.95 (49.29)	5011.74*** (1447.45)	-16.86 (57.49)	1266.17 (1564.63)
Adjusted R ²	0.47	0.38	0.39	0.49	0.41	0.42

* $p < 0.10$, one-tailed test; ** $p < 0.05$, one-tailed test; *** $p < 0.01$, one-tailed test.

^aDummy variables for 47 of 48 states (except Virginia) were included to control for state context. To save space, neither the state dummies, nor the constant are reported in this table. The unemployment rate in 1970 and total housing units in 1950 served as instrumental variables.

^bCoefficient and standard error divided by 10 to improve readability.

^cBecause data on college attendance are unavailable in 1969 the control for education is the percentage of labor force with a high school degree for the 1969–79 panel.

Net of control variables, Table 1 indicates that prisons have *not* played a prominent role in economic growth. In the 1969–1979 and the 1979–1989 periods, the number of established prisons is associated with employment growth in metropolitan counties. But this positive effect is not present in the 1990s. In fact, from 1989 to 1994, established prisons are negatively related to total employment growth in urban areas. For nonmetropolitan counties—the counties in which the majority of prisons have been built and counties that have competed to attract in order to boost local growth—there is no evidence that prisons have provided a boost. Neither established nor newly built prisons made a significant contribution to employment growth in rural counties.

Even if prison construction is not a boon for all nonmetropolitan counties, prisons might provide tangible benefits to depressed rural counties. To explore this possibility, we distinguished nonmetropolitan counties experiencing slow employment growth during the preceding decade (25th percentile and lower) from those growing at a faster pace (above the 25th percentile). Table 2 summarizes analyses that incorporate this distinction.

The Land-Deane spatial effects term is statistically significant in models of total employment growth from 1979–1989. For the most part, control variables performed as they did in Table 1. The trends in evidence in Table 2 cast doubt on the assumption that prisons spur growth in rural counties. Among counties growing at a rapid pace, established prisons contributed to the growth in public-sector employment in each period. And new prisons also contributed to the growth of public-sector employment from 1989 to 1994. However, when the focus is on change in total employment, there is no evidence that prisons (new or established) made a significant contribution in counties growing at a moderate or fast pace. Among slow-growing counties, the effect of established prisons failed to attain statistical significance in any panel. Among these slow-growing counties, it appears that new prisons do more harm than good. In the more recent panels, 1979–1989 and 1989–1994, new prisons impeded private and total employment growth. Thus—instead of helping counties in greatest need—carceral expansion has the least beneficial outcomes for depressed rural areas.

Our finding that prisons impede economic growth in counties growing at the slowest pace flies in the face of the widely held view that prison construction can assist struggling local areas. To buttress our faith in these findings, we conducted comparable analyses with alternative dependent measures. Specifically, using a comparable analytic approach, we assessed the impact of new and established prisons on changes in the unemployment rate, median family income, and earnings over the 1969–1994 period. We found no evidence that prisons helped to lower the unemployment rate, raise the median family income, or raise earnings (results available upon request).

TABLE 2

Determinants of Public, Private, and Total Employment Growth, 1969–1994 (2,264 Nonmetropolitan Counties in the Contiguous 48 States, Two-Stage Least Squares)^a

	1969–1979			1979–1989			1989–1994		
	Private	Public	Total	Private	Public	Total	Private	Public	Total
Land-Deane spatial effects term	-0.09 (0.10)	0.05 (0.38)	-0.06 (0.10)	0.25 (0.14)	0.63 (0.38)	0.28* (0.14)	0.19 (0.18)	0.37 (0.52)	0.22 (0.18)
<i>Established prison</i>									
Slow-growing county	-31.69 (23.38)	0.11 (13.80)	-31.66 (28.10)	-17.23 (33.13)	3.41 (8.67)	-12.09 (36.45)	-30.92 (34.43)	7.69 (11.60)	-23.24 (38.34)
Fast-growing county	-1.45 (11.39)	13.36* (6.68)	12.16 (13.68)	-14.74 (10.96)	13.90*** (3.14)	-0.80 (12.17)	-27.89* (13.06)	16.03*** (4.42)	-11.96 (14.55)
<i>New prison</i>									
Slow-growing county	-27.44 (41.02)	23.96 (24.17)	-3.61 (49.30)	-151.67* (73.15)	-0.38 (20.63)	-153.40 (81.08)	-98.36** (41.08)	0.17 (13.80)	-98.05* (45.72)
Fast-growing county	32.56 (29.03)	17.86 (16.64)	48.88 (34.74)	-19.78 (29.55)	3.18 (8.12)	-17.66 (32.69)	-29.65 (19.56)	17.39** (6.46)	-12.49 (21.74)
Core manufacturing ^b	-182.44 (140.65)	29.99 (92.69)	-161.28 (171.71)	-160.20 (194.07)	-67.57 (41.41)	-245.09 (210.20)	-53.27 (357.03)	-58.45 (80.13)	-28.69 (383.15)
Core nonmanufacturing ^b	560.93*** (126.57)	47.59 (73.20)	601.23*** (151.76)	583.83** (203.42)	-26.70 (55.74)	552.22* (224.95)	827.82*** (221.39)	61.38 (72.75)	885.77*** (245.76)
Competitive sector ^b	-255.79*** (69.18)	-0.29 (39.91)	-259.33** (82.89)	386.37*** (88.42)	12.34 (21.71)	391.37*** (96.60)	732.84*** (130.46)	50.15 (45.07)	777.63*** (144.64)
State sector ^b	-83.39 (94.38)	68.01*** (55.58)	-14.79 (113.41)	621.06*** (100.24)	151.61*** (29.15)	769.80*** (111.37)	640.86*** (174.38)	38.77 (62.01)	678.28*** (195.09)
Commercial bank deposits	0.72*** (0.08)	0.32*** (0.05)	1.05*** (0.09)	0.45*** (0.08)	0.10*** (0.02)	0.54*** (0.09)	0.59*** (0.07)	0.03 (0.02)	0.63*** (0.08)
Commercial aircraft activity	209.94*** (21.48)	22.04 (12.64)	232.17*** (25.81)	6.07* (2.81)	0.49 (0.79)	6.59 (3.11)	26.55*** (4.04)	5.23*** (1.33)	31.85*** (4.49)

TABLE 2—continued

	1969–1979		1979–1989		1989–1994	
	Private	Public	Private	Public	Private	Public
Per capita property tax	77.15* (35.32)	-40.78 (20.87)	36.67 (22.28)	5.71 (7.38)	100.44*** (23.52)	9.51 (8.80)
Percent of labor force with BA ^c	213.69*** (66.47)	-89.49 (50.19)	154.36*** (24.42)	14.38* (6.00)	170.32*** (26.73)	-9.73 (10.82)
General revenues of local government	23.74 (25.87)	50.17*** (15.37)	75.87* (31.14)	13.36 (7.18)	67.37* (30.68)	10.84 (8.66)
Total population	72.62** (25.97)	-44.43** (15.25)	25.97 (31.21)	-21.29 (11.54)	-183.54*** (49.96)	15.70 (17.87)
Adjusted R ²	0.47	0.23	0.39	0.14	0.42	0.11
						109.77*** (26.46)
						137.70*** (35.28)

* $p < 0.10$, one-tailed test; ** $p < 0.05$, one-tailed test; *** $p < 0.01$, one-tailed test.

^aDummy variables for 47 of 48 states (except Virginia) were included to control for state context. To save space, neither the state dummies, nor the constant are reported in this table. The unemployment rate in 1970 and total housing units in 1950 served as instrumental variables.

^bCoefficient and standard error divided by 10 to improve readability.

^cBecause data on college attendance are unavailable in 1969 the control for education is the percentage of labor force with a high school degree for the 1969–1979 panel.

Conclusion

Ironically, despite sharp ideological and intellectual differences, the critics and the advocates of the prison-construction boom share the assumption that prisons have contributed to local growth, especially in hard-pressed local areas. For advocates, this claim justifies prison-building campaigns, including expensive lobbying efforts to woo the legislators and bureaucrats who control prison construction. For critics, highlighting economic motives helps to delegitimize runaway prison construction. Regardless of the ideology and political aims, claims that prison construction accelerates local economic development fly in the face of mounting evidence that state and local initiatives rarely impact growth; and these claims are contradicted by our analyses.

Although there is evidence that some state and local economic development programs have been effective (Bartik, 1991), it is not surprising that prisons fail to spur employment growth. From sports stadiums to tax-abatement schemes, the evidence of economic growth has been mixed at best (Dewar, 1998; Wolman and Spitzely, 1996). Moreover, several studies have documented that the closure of military bases has not been the disaster that many had feared. In fact, in a number of instances, the closure of a military base ushered in an era of faster growth (Bradshaw, 1999; Hill and Raffel, 1993). As such, the failure of prisons to spur growth is consistent with the expectations of economic development specialists. Still it is surprising to find that prison construction and expansion impedes growth. Future research might examine in greater detail the negative relationship between prison construction and economic growth.

If prisons impede economic growth in rural counties, we believe the most plausible explanation centers on prison building crowding out alternative economic activity (opportunity costs). With communities competing to attract prisons, corrections bureaucracies are shifting infrastructure costs to local governments. Communities are being forced to supply prisons with “electrical services, roads, and the other things to construct and operate a facility” (Lynn Phillips, Assistant Secretary for Construction, North Carolina Department of Corrections, in Gaseau, 1999). Under these pressures, rural counties desperate for jobs are diverting large portions of limited infrastructure budgets to support a correctional facility and adapting a limited infrastructure to the needs of a (new or existing) prison. As a result, the infrastructure may be ill suited for other potential employers, and local governments have few funds left for other investments in the local infrastructure. There is a widespread belief that prisons spur local growth—a belief that is reinforced by newspaper articles and political leaders. Although social scientists have been skeptical of this belief, there are few empirical studies of the consequences of carceral expansion. We hope that our surprising finding that prisons impede growth in rural counties that were already growing slowly will spark additional studies of the local consequences of this prison boom.

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