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**PRISONS, JOBS AND PRIVATIZATION:
THE IMPACT OF PRISONS ON EMPLOYMENT GROWTH IN RURAL U.S. COUNTIES, 1997-2004**

Shaun Genter, Tacoma Community College

Gregory Hooks, Washington State University

Clayton Mosher, Washington State University

Corresponding author: Gregory Hooks (ghooks@wsu.edu)

Mailing address:
Department of Sociology
Washington State University
Pullman WA 99164-4020

509-335-6419 (fax)
509-335-3687 (office)
509-432-1840 (mobile)

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ABSTRACT

In this study of prison privatization we draw on the insights of a recent body of literature that challenges a widespread belief that prisons help to spur employment growth in local communities. We look to these studies to provide an empirically and theoretically grounded approach to addressing our research question: what are the benefits, if any, to employment growth in states that have privatized some of their prisons, compared to states with only public prisons? Our research makes use of a large, national, and comprehensive dataset. By examining the employment contributions of prisons, as recent research has done, we were able to corroborate the general findings of this research. To study prison privatization we distinguish between states in which privatization has grown rapidly and those states in which privatization has grown slowly (or not at all). Our findings lend support to recent research that finds prisons do not improve job prospects for those communities that host them. We contribute to this literature by demonstrating that new prisons in states in which privatization is surging impede employment growth in the host community. To explain this we highlight the significant reduction in prison staffing - in both private and public prisons - where privatization is growing quickly.

RESEARCH HIGHLIGHTS

- Corroborates recent research challenging claims that prisons bring benefits to host communities.
- Goes beyond extant literature to examine the impact of prisons in states that turned to privatization.
- In states with at least one private prison as of 1990, prisons are significantly and negatively related to employment growth.
- Authors argue that privatization places downward pressure on staffing, pay and benefits for all prisons in the state. As a consequence, prisons not only fail to help but appear to harm host communities.

KEYWORDS

Incarceration

Prison expansion

Community economic development

Rural employment

Privatization

1. INTRODUCTION

This article focuses on the intersection of three trends in criminal justice and local economic development. First, in absolute and relative terms, the United States has dramatically expanded the number of prisons and prisoners. Fueled by “get tough on crime” policies (Dyer 2000), incarceration rates soared. In 2010, over 1.6 million individuals were incarcerated, with an incarceration rate of approximately 500 per 100,000 (U.S. Department of Justice 2012). While this incarceration rate is slightly lower than the peak (506 per 100,000 in 2007), this represents a dramatic increase relative to the 1970s and one of the highest in the world. To accommodate this growth, correctional officials filled prisons beyond their capacity (Besser and Hanson 2005), converted old buildings to prisons, transferred inmates to correctional institutions in other states, and constructed new facilities (Lawrence and Travis 2004). Second, over this same period, state and local governments have privatized a number of public services - including corrections (Domberger and Jensen 1997; Gaes *et al.* 2004; Hallett 2006; Logan 1990; Shichor 1995). Third, a disproportionate number of new prisons were built in nonmetropolitan counties. Rural counties and communities aggressively campaigned to attract prisons. As Besser and Hanson (2005:2) note, “what had been viewed as a LULU [locally undesirable land use] became a last resort for promoting economic development.”

The sharp recession that began in 2008 - and the enormous pressure placed on state and local budgets -- has stalled and may lead to a reversal of the incarceration trend (Coleman 2008; Lotke 2008). Even before this recession, the local benefits of prison expansion have been called into question (Besser and Hanson 2004; Gilmore 2007; Glasmeier and Farrigan 2007; Hooks *et al.* 2004; Hooks *et al.* 2010; King, Mauer, and Hulling 2004). The pervasive finding in recent research - that prisons bring few if any economic benefits - contradicts the hype surrounding prisons. But this finding is consistent with Eason’s (2010)

assertion that prison-building has compounded problems for struggling rural communities. Even if the rate of incarceration declines, the privatization of prisons will likely continue (Burnett 2011; Caputo 2011; Vardon 2011). In fact, Corrections Corporation of America (CCA) recently extended an offer to buy prisons from cash-strapped states. This offer is contingent on a commitment to have CCA manage the prisons for 20 years and that the facility is at least 90% full over the period (Kirkham 2012). Whereas supporters of privatization tout savings for the public sector and attractive employment options for nearby residents, critics dispute these claims and stress the profits flowing to out-of-state corporations. Our research is focused on privatized prisons and employment. To the extent that privatization delivers on the promise of lowering costs, it does so by reducing labor costs. As such, it is possible that private prisons generate fewer secure and well-paying jobs than comparable prisons managed by the public sector. In turn, the counties hosting private prisons are less likely to experience a net increase in employment when a prison opens.

To establish a baseline for comparison, we use measures and methods that have been employed to examine the relationship between prisons and local economic trends (Hooks *et al.* 2004, 2010). We then distinguish between states in which the privatization of prisons has grown rapidly and those states in which privatization has grown slowly. Consistent with trends in the literature, our empirical research provides no evidence that prisons contribute to local economic growth. Specific to private prisons, our analyses provide evidence that they have a negative impact on host counties. Where privatization is increasing at a rapid rate, we find a negative and significant relationship between prisons and local job growth.

2. PRIVATE PRISONS AND LOCAL EMPLOYMENT TRENDS

“Privatization” refers to the transfer of state managed and owned bureaucracies - and the public function they serve - to private management and ownership (see Sclar 2000; Shiva

2002). In important respects, critics and proponents of privatization agree about the mechanisms through which privatization reduces costs. Public bureaucracies are labor intensive, the savings (if any) will come from reducing outlays for labor. The executives of firms bidding on privatization contracts receive lucrative compensation (Mattera, Khan and Nathan 2003). As such, cost saving must come from other levels of the organization: fewer employees, fewer full-time employees and lower salaries.

“Market fundamentalism” refers to a strong adherence to an idealized free market and a belief that markets should be sheltered from political intervention and operate “freely” (see Sommers and Block 2005). For fundamentalists, unfettered markets offer the most efficient, highest quality, and most cost effective means of responding to human needs and desires. Unleashing the pressures of supply and demand “enforces efficiency by virtue of [the ability of buyers] to cease transacting with one provider in favor of another” (Hallett 2006:134). For proponents of privatization, the pressure of competition and avoidance of suffocating civil service rules insures that privatization will lower costs while maintaining or improving service delivery. Because private corporations can hire and fire personnel with fewer constraints, privatization allows for more nimble and responsive management than is possible with an ossified public bureaucracy.

Skeptics doubt that private prisons will display creativity and fresh thinking. Managers of private prisons are constrained by corporate executives and by a board of directors focused on profitability and growth. Moreover, all prisons must conform to the complex legal and political framework that constrains prison management (Ogle 1999, p. 588). These cross-cutting pressures will likely result in private prisons mimicking publicly managed prisons. In a study sponsored by the Department of Justice, Austin and Coventry (2001) found little evidence of organizational innovation. With regard to budgetary savings, private prisons achieved “modest cost savings, at least initially, by making modest reductions in staffing

patterns, fringe benefits, and other labor-related costs....The promises of 20-percent savings in operational costs have simply not materialized" (Austin and Coventry 2001, p. 58).

Critics are not surprised to find few cost savings. But problems go further. This is not the first time that prisons have been privately run in the United States - and the record is disturbing (Durham 1993; see also ACLU of Ohio 2011; Walker 1994). "History shows that privately operated prison facilities were plagued by problems associated with the quest for higher earnings. The profit motive produced such abominable conditions and exploitation of the inmates that public agencies were forced to assume responsibility" (Austin and Coventry 2001, p. 17). With the emphasis on reducing labor costs, there is no reason to expect that contemporary private prisons will avoid such abuses. For the present purposes, this larger debate over prison privatization provides a context for considering local employment impacts. If the defenders are correct when they paint a positive view of working conditions, then host counties should be better off for housing a private prison (or at a minimum, no worse off). If, however, the critics are correct when projecting fewer jobs - and if these jobs pay less and are less secure than at public prisons -- then host counties may be significantly worse off for housing a private prison.

2.1 Prisons and Employment Growth

As incarceration increased in the 1980s and 1990s, economic developers and policymakers espoused the virtues of this "industry" and promoted it to solve local economic problems. Communities, especially rural communities, competed fiercely to "win" prisons by offering large, public subsidies (Beale 1997; Glasmeir and Farrigan 2006; King, Mauer, Huling 2004). Academics, policy makers, and journalists of the 1980s and 1990s generally supported the economic claims of proponents, entrenching a conventional wisdom that a prison provided direct benefits in terms of employment opportunities at the prison. In addition, proponents claim a number of indirect benefits, including increased demand for local goods and services,

increased tax revenues for local governments, upgrades of the local infrastructure, and population increase (creating opportunities for increased funding from a variety of federal programs) (Glasmeier and Farrigan 2007, p. 277). This conventional wisdom was reinforced by commissioned impact studies designed to generate findings favorable to prison expansion (McShane, Williams, and Wagoner 1992) and by a host of academic studies that concluded prisons generated jobs for local communities (Abrams and Lyons 1987; Carlson 1992; Carlson 1991; Sechrest 1992; Sechrest 1991; Shichor 1992). Indeed, the view that prisons boost local economies was so widespread that opponents conceded the point, even as they condemned economic development plans rooted in human suffering (see Hooks *et al.* 2004).

Recent studies have challenged these optimistic claims (see Hooks *et al.* 2004; McShane, Williams, and Wagoner 1992). Most important, prisons *do not* generate local economic benefits (King, Mauer, Huling 2004), and in some cases can be harmful (Besser and Hanson 2004; Gilmore 2007; Hooks *et al.* 2004; Hooks *et al.* 2010). Furthermore, simply “identifying that a prison creates employment without tracing the recipients of that employment provides little useful information for citizens of a potential host community.... When prisons are promoted to a community as a solution for economic distress, the belief by the community is that not only will the prison bring jobs, but also that the *current residents* will fill the jobs” (King, Mauer, and Huling 2004, p. 457). But this is often not the case. Thies (1998) found that workers from *outside* of the county typically occupy new prison jobs, effectively narrowing opportunities for local residents (see also Beale 1997; Gilmore 2007). Partly, this can be explained by seniority privileges, especially where corrections personnel are unionized (King, Mauer, and Huling 2004; see also Dao 1997, Thies 1998). Nor are these dynamics limited to high-wage jobs; prisons generate surprisingly few low-wage jobs. Janitorial positions are out of reach because they are typically filled by the prisoners themselves. In fact, a number of prisons provide janitorial, landscaping and similar services

to government, church and other community groups -- paying well below the minimum wage. This can result in direct competition between local residents and inmates for jobs (King, Mauer, and Huling 2004:474; see also Blankenship and Yanarella 2004).

Recent literature casts doubt on the local benefits of large public infrastructure outlays more generally, e.g., sports venues and casinos. Such projects are often highly visible and politically popular, but empirical evidence casts doubt on claims of local benefits (Wolman and Spitzley 1996). Furthermore, when local and county governments invest in prison construction they may be left with fewer resources to invest in other services that are more effective (Hooks *et al.* 2004). Furthermore, prisons generate few linkages with the host community and thus leak important local dollars that are essential to job creation. During the construction phase, local firms and workers may be squeezed out. Prisons are large facilities. Especially in rural counties, local construction firms and workers typically lack the expertise to compete on such projects (see Blankenship and Yanarella 2004; Hooks *et al.* 2004; King, Mauer, and Huling 2004). The exclusion of local workers may continue after the prison opens. Gilmore (2007) notes that relatively few corrections officers live in the host community, thereby diluting their contributions to the local economy (see also King, Mauer, and Huling 2004).

2.2 Privatization and the Management of Prisons

The case for privatizing prisons rests on claims of efficiency, innovation, and flexibility. Corrections Corporation of America, the largest private prison company in the United States, housing some 75,000 inmates in more than 60 facilities, trumpets these purported benefits on its website: "CCA benefits America by protecting public safety, employing the best people in solid careers, rehabilitating inmates, giving back to communities, and bringing innovative security to government corrections - all while consistently saving hardworking taxpayers' dollars.... We extend life-changing career

opportunities, where you can make a difference” (Corrections Corporation of America 2010). Evaluating whether or not privatization has delivered on these promises has sparked scholarly debate on many aspects of private prisons, including ethics, race, politics, and inequality (ACLU of Ohio 2011; Shichor 1998, Shichor 1995; Logan 1990; Hallet 2006; Price 2006; Price and Riccucci 2005). In reviewing the literature, we gleaned important lessons on two issues directly related to our research: (1) the effects of prison privatization on labor, and (2) the generation of an economic climate of competition and the extent to which this may trigger a “race to the bottom.” Specific to prisons, proponents of privatizing them believe that competition leads private prisons to be more efficient than their public counterparts; they can, therefore, provide an equal or better “service” at a lower cost. Detractors emphasize the tension between profit chasing and cost containment. Because private companies are beholden to their shareholders, they privilege profit over the well-being of employees, prisoners or taxpayers.

Approximately 70% of prison budgets are allocated to labor (Donahue 1989; Gaes *et al.* 2004). According to Gaes *et al.* (2004), the purchase of materials required for construction and operations offers few opportunities for dramatic reductions in spending. Based on these facts, most observers - including proponents of privatization (see for example Logan 1990) - agree that the major cost savings of private prisons must come from labor expenses. A recent comparison of public and private prisons (Austin and Coventry 2001, p. iii) has shown that the total cost savings of private prisons “is only about 1%, most of which comes from cutting labor costs.” Since the focus on trimming labor costs is taken as a given, how do proponents and detractors envision the effect of free market discipline on the operations of private prisons? What are the consequences for job growth in host counties?

We found several studies asserting that private prisons have generated significantly more local jobs than public prisons - if only for the wrong reasons. When comparing public

and private prisons, higher turnover rates and lower morale will likely be found at private prisons. In turn, because it leads to more job openings being advertised, high turnover may give the appearance of a net growth in jobs available to local residents (Shichor 1995; see also Camp and Gaes 2000; Hallett 2006).

According to proponents, private corporations are deft at personnel management and “can cut costs *without cutting salaries*...[through] [a]dequate and appropriate staffing, better working conditions, and more efficient procedures.” In turn, this superior personnel management can “improve productivity and morale, decrease absenteeism and turnover, and reduce expensive reliance on overtime” (Logan 1990, p. 81, emphasis added). Some authors have argued that the introduction of private prisons can discipline public prisons into becoming more efficient and flexible (McFarland, McGowan and O’Toole 2001, p. 6). That is, the innovative approach to personnel management adopted by private prisons will be adopted by the remaining public prisons, thereby providing indirect benefits.¹ Assuming for the moment that Logan is correct about the attractive salaries and working conditions at private prisons, the only other avenue for controlling labor costs is through a net reduction in staff, leaving residents of host communities with fewer opportunities to secure employment. Critics of privatization dispute the assertion that private prisons pay higher salaries to employees, but they are in agreement that private prisons will have a relatively smaller workforce (see for example, ACLU of Ohio 2011). The issue here as it relates to impacts on the host county should be obvious: job opportunities for locals, which are limited even for public prisons, are in even shorter supply in private prisons.

¹ To control costs, Phoenix opened up bidding for garbage collection. Ultimately, the city-run “Public Works” won the contract with a margin of \$6 million over the nearest private competitor, demonstrating the ability of public agencies to compete with private firms on price. For proponents, Phoenix provides an example of competition keeping costs down while pushing public bureaucracies to provide services with greater flexibility and efficiency (Osborne and Gaebler 1992). Given our focus on employment prospects, it is notable that these savings were made possible by using technology requiring only one worker per truck (instead of three), resulting in reduced service and fewer jobs (Gaes 2005, p. 86).

2.3 *Patterns of Prison Location and Management, Public and Private*

The U.S. Department of Justice (various) has conducted a census of adult prisons at various points in time. We compiled data from these censuses to track the trend towards privatization and the consequences for staffing patterns. Table 1 sorts states based on the rate of privatization from 1995-2000.

<Table 1, about here>

Although rapid privatization (above the 75th percentile) is not specific to one region, no southeastern state and no New England state experienced rapid privatization. Nor is it the case that only small and less populated states rapidly turned to privatization (or vice versa).

In recent decades, new prisons were disproportionately sited in rural areas (Beale 1997; Hooks *et al.* 2010). Eason (2010) has documented the minority population was significantly higher in prison towns when compared to rural communities without prisons. Figure 1 returns to this issue, comparing patterns in states maintaining publicly managed prisons with patterns in states shifting towards privatization (see Table 1).

<Figure 1, about here>

Figure 1 contrasts counties with and without a new prison (between 1990 and 1997), and it provides separate contrasts based on rates of prison privatization (see Table 1). On several sociodemographic measures, differences are modest. In states undergoing a slow shift towards privatization, the percentage of adults with a high school degree is nearly identical in counties with and without a new prison. In states rapidly shifting to privatized prisons, the prevalence of high school degrees is slightly lower than in states privatizing more slowly, but there is little difference between those counties with and without a new prison. Where privatization was occurring at a slow rate, approximately 12-13% of the population possessed the BA degree. Where privatization is occurring at a rapid pace, new prisons were located in

counties with a comparable rate of BA degrees. However, in counties with no new prison, the percentage of adults with a BA degree was significantly higher (15.8%).

When the focus shifts to poverty, small differences are in evidence. Counties that hosted a new prison have a poverty rate approximately 2 percentage points higher in both cases: 14.2% versus 16.1% where privatization is occurring slowly and 15.3% versus 17.5% where privatization is occurring rapidly. Consistent with Eason's research (2010), the most striking contrast involves the minority population in a county. Where privatization is occurring rapidly, new prisons were located in counties with a significantly higher nonwhite population (17.0%) than counties with no new prison (12.6%). Even more striking is the pattern where privatization is occurring slowly (or not at all). Eleven percent (11%) of residents were nonwhite in counties with no new prison. However, where new prisons were built between 1990 and 1997, over 23% of the residents were nonwhite. Given these differences in the counties hosting prisons, our analyses of employment trends will revisit these issues (see below).

The focus now shifts to employment at prison, contrasting private and public prisons on this score. As of 2005 - and excluding employment at federal facilities -- nearly 150,000 people were employed at maximum security facilities (see Figure 2). One hundred twenty five thousand (125,000) people were employed at medium security facilities; while minimum security facilities accounted for another 67,000 jobs. Private prisons account for a small fraction of these jobs: 1 percent at maximum security prisons and 6 percent at medium security prisons. While private prisons accounted for 21 percent of all employment at minimum security prisons, the total number of jobs is significantly smaller at these facilities. In total (including all security levels), prisons employed approximately 233,000 people in 2005; private prisons accounted for 21,700 or 6.5 percent of these jobs.

<Figure 2, about here>

Given that the vast majority of prisons and most jobs at prisons remain in the public sector, we focus our attention on the possibility that the shift toward privatization is changing staffing patterns at public prisons. As noted (see above), proponents of privatization argue that allowing private corporations to perform public functions will serve to discipline public agencies and induce streamlined staffing.

Figure 3 charts employment trends by management type and the growth in privatization between 1995-2000. Because we are focused on employment trends, this chart tabulates the number of jobs per 100 inmates. It comes as no surprise that privatized maximum and minimum security prisons generate significantly fewer jobs than publicly-managed facilities. With regards to minimum security facilities, the difference between public and private facilities is modest.² For the present purposes, contrasts among public prisons are especially important.

<Figure 3, about here>

Regardless of security level, states without private prisons have the highest levels of staffing, generating 35.67 positions per 100 prisoners at maximum security facilities, 37.52 at medium-security prisons and 30.24 at minimum security prisons. In states where privatization grew slowly (below the 75th percentile) between 1995 and 2000, there is no clear pattern of decline in staffing trends. At maximum and minimum security facilities, staffing levels are nearly identical to those found in states with only public facilities. A significant difference is found at medium security facility: states with only public prisons generated roughly 25% more jobs per 100 inmates (37.52 versus 30.03) than in states in which privatization grew slowly. When the focus turns to states undergoing rapid privatization (above the 75th percentile - or an 18% increase between 1995 and 2000), contrasts are clear. When compared to states with only

² Many of the privately managed minimum security facilities are work release facilities (Feeley 2002). The relatively high staffing levels may reflect an aggressive deployment of prison labor to perform work in the community and generate income for the corporation managing the facility. Future research is warranted to examine these issues.

public prisons, public maximum security prisons in states undergoing rapid privatization generated 22 percent (22%) fewer jobs per 100 inmates (35.67 versus 29.17). Comparable contrasts for medium and minimum security facilities are 37 percent (37%, 37.52 versus 27.40) and 26 percent (26%, 30.24 versus 23.92), respectively.

Given that the vast majority of prison employment is found in maximum and medium security facilities that are publicly-managed (see Figure 2), the sharp contrast *among* public prisons has implications for local employment impacts. We have undertaken empirical research to shed light on debates over privatization and the impact of prisons on host counties. Given the trends revealed in Figures 2 and 3, we anticipate finding that employment trends are worse in the context of rapid privatization. As noted, recent literature has examined the effects of prisons on local areas and found that prisons, on the whole, have a modest impact on local employment. To the extent that prisons impact employment in host counties, that impact is negative. Should we find that privatization contributes to a significant and negative impact on local employment, this research can further our understanding of why the prison building boom provided so few benefits to host counties.

3. DATA AND METHODS

To examine the employment impacts of prisons, we made use of a dataset that includes detailed county-level employment information and other economic measures, as well as information on prison construction. According to Hooks *et al.* (2004, 2010), counties (1) are preferred over larger units of analysis such as states or regions because these larger units often obscure within unit variation, and (2) provide stable boundaries over time, which facilitates comparative analysis. With a county-level focus, however, it is possible to lose sight of macro-level political and economic interventions or processes that in part determine

county level conditions. For this reason, and following Hooks *et al.* (2004, 2010), we include controls for regional economic processes and spatial autocorrelation (see below).

We employ a panel design -- a seven-year period for the dependent variable (employment growth except construction, 1997-2004), as well as the lagged measure of this same variable (1990-1997). For this research, established prisons refer to those founded prior to 1991; new prisons opened between 1991 and 1997. We identified states reporting a rapid shift towards privatization between 1995 and 2000, at or above the 75th percentile, i.e., eighteen percent (18%) or faster growth in privatization (see below for details on data sources and measurement). When employing a panel design to study change, Halaby (2004; see also Finkel 1995) makes a persuasive case for employing the method of first difference, i.e., the dependent and independent measures are change scores. This approach models directly the change under investigation and provides some protection in the case of omitted variables (see Finkel 1995:5). For this reason, we created change scores for the independent and control variables. To reduce heteroscedasticity, we employ logarithmic transformations for each dependent and independent measure. Change scores include values of 0 and negative numbers. Because the log is undefined for these values, we calculated the log for the absolute value, plus one (1). Where the observed change score was negative, this result was multiplied by negative one (-1).

3.1 Dependent variable

Because jobs are generally viewed as the most important benefit in contests to attract new prisons, we focus on employment growth. The Bureau of Economic Analysis (BEA) (2008) compiles detailed information from federal sources as well as from state reports (i.e., Social Security contributions, unemployment compensation, etc.). Using the BEA data, we developed a measure of *employment growth (1997-2004)*. To control for employment stimulation due to construction, we subtract construction employment from total

employment. Because we have employment data for each year, we measure the average annual change in employment over the period. That is, we measured the change in employment for each year and calculated the average across this seven-year period. This average annual change score is superior to a simple change score using the beginning and ending year of the period because information from each year is included and thus potential influence of any one exceptional year is moderated by the trends of all the years in the period (log transformation).

3.2 Prisons

We have compiled data on adult (state level, public and private) correctional facilities built in the United States prior to 2000 (U.S. Department of Justice 2000). We exclude federal prisons from these analyses. By focusing solely on state prisons, our analyses highlight the impacts of state-level decisions to adopt or eschew privatization. Prior research contrasts the economic effects of newly constructed prisons and established prisons, thereby distinguishing between immediate benefits (or drawbacks) and long-term benefits (or drawbacks) of prison construction. We consider a prison to be *new prison* if it was constructed between 1991 and 1997. *Established* prisons are those built prior to 1991 (see Hooks *et al.* 2004, 2010).

3.3 Control Variables

Agglomeration effects are among the most persistent of findings in regional analyses: larger and more populated regions tend to be centers of subsequent growth, and in a similar vein, regions with greater human capital and prior economic activity tend to grow more rapidly. Our analyses include several lagged measures of agglomeration, including *employment growth in the preceding 7-year period (1991-1997)*. We include a separate measure of *change in construction employment (1991-1997)* in order to control for the local benefits that potentially flow from large construction projects (including, but not limited to,

prison construction). In the North American Industrial Classification (NAIC) system, the two-digit classification of construction (23) encompasses commercial, industrial, and residential projects. For the years prior to 1997, we used equivalent codes from the Standard Industrial Classification (SIC) system to construct this variable (for details on NAIC and SIC and conversion between them, see U.S. Census Bureau, 2008).

The importance of infrastructure to economic development is well-documented, with air transportation increasingly significant over the period of interest. Counties with an airport have grown more quickly than those lacking one (Irwin and Kasarda 1991). The *change in commercial aircraft activity* (1980-1990) compiled from U.S. Federal Aviation Administration reports provides a measure of infrastructural development. Commercial banking assets are also an important infrastructural resource that facilitates local growth. As such, *change in bank deposits* (1980-1990) in a county is included in our models, with the expectation that this variable is positively associated with economic growth.

Research into local taxation has become increasingly nuanced in recent years. Instead of assuming that employers will vote with their feet to escape relatively high local taxes, recent research (Brueckner 2000; Wilson 2000) also considers the possibility that residents and employers will be attracted to public goods made possible by higher levels of taxation. To control for impacts of local taxation rates, *change in per capita property taxes* (1977-1987), is included. To control for the potentially positive role of enhanced local fiscal capacity, we included *change in revenues available to local governments* (1977-1987). Although rates of taxation and levels of general revenue are closely intertwined, we measured taxation on a per capita basis and absolute levels of general revenue. We found only modest levels of correlation and no evidence of collinearity.

Our models include measures of *change in percent of population with a high school degree* (1980-1990) and *change in percent of population with a college (BA) degree* (1980-

1990). We anticipate both measures are positively associated with employment growth, but the change in college graduation rates have a greater impact (Young, Levy, and Higgins 2004).

To control for employment structure, we draw on Lobao, Rulli, and Brown's (1999) four measures of change in a sector's concentration in a county between 1980 and 1990: *core manufacturing*, *core non-manufacturing*, *competitive*, and *state sector*. The core sector (durable manufacturing and non-manufacturing industries such as producer services) is characterized by high wages and benefits and greater job security; the competitive sector (such as retail services) is characterized by low wages, few benefits, and lower job security. The state sector includes employment in public administration, health, education, and welfare. We use the two-digit SIC codes to develop the four measures, each of which refers to change in the percentage of county employment in the sector. Although core manufacturing provided stable and well-paying employment for much of the postwar period, the period we are investigating is one of deindustrialization. For this reason, we expect that change in core manufacturing will be inversely related to employment growth. Because service industries grew rapidly over the period, change in the remaining sectors, core non-manufacturing, competitive sector and state sector will likely have a positive impact on employment growth.

County economic growth may be influenced by regional economic processes. We control for regional context by inserting a dummy variable for each Census division, omitting the North Central division.

3.4 Spatial Autocorrelation

Growth or decline in one county likely influences economic growth in nearby counties (e.g., commuting to work across county boundaries or the expansion of service industries to support economic activities in nearby counties). We address spatial autocorrelation with a procedure developed by Land and Deane (1992). 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, p. 227). Distances are computed using a standard trigonometric function and latitude and longitude coordinates internal to each county. As the spatial effects term is endogenous, it is regressed on all dependent variables in the model plus a set of instrumental variables. In turn, the instrumented form of the spatial effects term is used in the model of interest. We use the unemployment rate in 1970 and existing housing units in 1950 as instrumental variables.

4. RESULTS

Table 2 reports summary statistics (means and standard deviations, logged and untransformed values) for the variables included reported analyses. Because the rate of prison privatization (by state) is a central feature of our analyses, we have included summary statistics for all (2,242) non-metropolitan counties³, for counties in states with rapid growth in private prisons (at or above the 75th percentile, 487 counties), and for counties in states with slower growth in privatization (1,755 counties). A quick glance at the dependent variable reveals that there is no difference in employment growth between states undergoing rapid versus slower privatization. In like fashion, employment growth over the 1990-1997 period was also very similar in the two sets of states.

<Table 2, about here>

For counties in states undergoing rapid privatization, a mean value of 0.08 prisons per county is found for established prisons (built in 1990 or earlier) and the mean value for new prisons

³ As our dataset includes all nonmetropolitan counties, a case could be made that inferential statistics are not needed. However, the various measures we employ are collected on one day during a given reporting year. In this sense, we do not have data on each day and county; and our data may reflect sampling error. For this reason, we have opted to include tests of significance.

(built between 1991 and 1997) was 0.08 per county. Conversely, for counties in states with little or no privatization, the mean value of established prisons was 0.11 prisons in 1990 while the mean value for new prisons was 0.04 prisons per county. These mean values suggest that most rural counties do *not* house a prison - but they also demonstrate that, on average, states undergoing rapid privatization had fewer prisons in 1990 but were adding prisons at a faster pace from 1991 to 1997. Fremont County (Colorado) for example - a state experiencing rapid privatization (see Table 1) -- had *eight* prisons as of 1990 and added *four more* prisons between 1991 and 1997.

Table 3 presents the findings of three regression analyses that examine the determinants of total employment growth in rural counties. The full sample includes all rural counties in the contiguous 48 states. The second model, includes 487 rural counties in states that rapidly shifted towards private prisons between 1995 and 2000. Conversely, the third model is restricted to the 1,755 counties in states that avoided privatization or shifted more gradually towards private management of prisons.

<Table 3, about here>

For the most part, control variables performed as expected across the three models. The Land-Deane spatial effects term fails to attain statistical significance in any of the models, suggesting that the analyses are *not* compromised by an unmeasured spatial process. Coefficients for lagged measures of change in employment are positive and significant. It is also the case that the change in construction employment (lagged) is positive and significant in each model. While not specific to prisons, this suggests that large construction projects have a positive impact on county employment trends. Contrary to expectations, neither per capita taxes nor commercial bank deposits achieved statistical significance; and we found an inverse relationship between growth in commercial aircraft activity and employment. We also found positive contributions to employment growth in general revenues of local

government. Enhanced educational attainment contributed to employment growth, but this positive role is only in evidence for growth in BA degrees (not high school graduation rates). With regard to industrial segmentation, core manufacturing returned negative and statistically significant results in each model. Core non-manufacturing and competitive sector, on the other hand, failed to attain statistical significance. However, growth in the state sector's share of the overall economy stimulated job growth.

Overall, Table 3 corroborates prior research into the impacts of prisons on local employment trends. These analyses offer no evidence that prisons contribute to employment growth. In states undergoing rapid privatization, there is evidence that prisons impede local employment growth. For counties in these states, established prisons do not contribute to growth, and new prisons are inversely and significantly related to employment growth. Overall, these findings suggest that privatization is likely to result in negative effects on employment growth in host communities.

Table 3 points to an interaction between privatization trends in a state and the local impact of prisons. To examine this interaction in greater detail, we created a dummy variable based on privatization trends from 1995 to 2000: this variable equals zero (0) for states reporting little or moderate shift towards privatization (below 75th percentile), it is coded one (1) for counties in states that rapidly embraced private management of prisons (at or above 75th percentile). Because this is a dummy variable, we created four slope-dummy interaction terms (see Hamilton 1992; Jorgenson, 2006): (1) established prisons in states with *rapid growth* in privatized prisons; (2) established prisons in states undergoing a *slower growth in* privatized prisons; (3) new prisons in states with *rapid growth* in privatized prisons; (4) new prisons in states experiencing *slower growth in* privatized prisons.

<Table 4, about here>

When reviewing Table 4, a review of control variables and the variables of interest reinforce the trends discussed above. The Land-Deane term is not significant, and the remaining control variables performed similar to Table 3. Prisons do not contribute to employment growth under any circumstances; in states shifting rapidly towards privatized prison management, new prisons impede employment growth.⁴

As noted, new prisons are not randomly distributed across counties. Instead, it appears that new prisons went to relatively disadvantaged counties (Eason 2010, see also Figure 1). We pursued analyses to assess the degree to job growth also varied along these lines. In the analyses summarized in Table 5, we employed the same measures and modeling procedures as employed in Table 4 - with one difference. We divided the sample into two based on several sociodemographic characteristics (above and below the median).

<Table 5, about here>

The results in Table 5 are noteworthy. Consistent with the trends reported in Table 4, there is no evidence that prisons (established or new) contribute to local job growth. Instead, where privatization is proceeding rapidly, these results suggest that new prisons impede local employment growth (again consistent with Table 4). But Table 5 introduces a new wrinkle. It appears that the negative impact of new prisons is *not* concentrated in relatively disadvantaged counties. Instead, in the context of a rapid shift toward privatization, new prisons impede employment growth for the counties with less poverty, higher educational attainment and a lower percentage of minority residents. As discussed below, this suggests that the negative impacts of prison privatization are felt most directly in counties with higher paying and more secure jobs.

⁴ The analyses summarized in Table 4 divides states at the 75th percentile based on the pace of privatization. In other analyses (not reported here), we divided states at center of the distribution (median and mean) and performed comparable analyses. The results were similar to those discussed in this paper. That is, for counties in states shifting towards privatization at a more rapid pace, prisons are inversely related to employment growth. Results available upon request.

5. DISCUSSION

Private operation of some prisons induces change across a state's criminal justice system. Proponents of privatization anticipate a positive sum outcome due to this system-wide change: lower costs to the taxpayers, the same or improved service delivery, and improved salary and working conditions. Opponents of privatization characterize these systemic changes as a race to the bottom, wherein salaries, job security and working conditions decline as privatization gains momentum.

Whether or not they bring jobs, critics object to the subsidization of private prison construction under the banner of economic development. Private prisons have received extensive economic subsidies from local, state, and the federal governments. A study of 60 private prisons with a capacity of 500 or more beds found that a total of \$628 million in tax-free bonds and other government issued securities were used to finance the prisons, that more than one-third received property tax abatements or other tax reductions, and that 23% received various infrastructure subsidies, such as water, sewer, or utility hookups, access roads, or other publicly financed improvements (Mattera & Kahn 2001; see also Shichor 1995). Where privatization is moving rapidly, we found a negative relationship between a new prison and local job growth. This finding is consistent with prior research that many of the jobs promised by private prisons simply do not materialize. For example, Wackenhut Corporation (now the GEO group) secured a contract to build and operate a correctional facility in East Mississippi in 1997, with officials predicting the facility would create up to 350 jobs. However, as of 2005, the prison employed only 220 people (American Federation of State, County, and Municipal Employees 2010). Further, non-residents fill many jobs at new prisons (Gilmore 2007; Mestas 2010). It is not only the case that private prisons generate surprisingly few jobs. But they are less likely to contribute to employment stability because of extremely

high turnover (with low wages and salaries no doubt contributing to this trend). Nationally, it is estimated that annual employee turnover in private prisons is 52% (American Federation of State, County, and Municipal Employees 2010) compared to estimates of 12-25% in public prisons (Minor *et al.* 2009). In Texas, annual staff turnover rates of 90% were found in private prisons, compared to 24% for publicly employed correctional officers in that state (Texas Senate Committee on Criminal Justice 2008). With regard to wages, the U.S. Department of Labor (2010) reports that in 2008, the median annual wage for correctional officers employed by the federal government was \$50,830, \$38,850 for officers employed by state governments, and \$37,510 for those employed by local governments. But, officers employed in privately operated prisons earned only \$28,790.

Critics - calling attention to anemic job creation, depressed wages, high turnover and public subsidies -- anticipate zero-sum dynamics: corporations have profited and their executives have earned exorbitant salaries (Mattera, Khan and Nathan 2003). But privatization has yielded few savings for the public sector, contributed to an erosion of service delivery, and undermined working conditions. Our findings cannot speak to the full range of outcomes -- but they do point towards another dimension of zero-sum outcomes. The counties hosting prisons are placed at risk by their failure to expand employment and by the depressed pay and high turnover that is characteristic of private prisons. Given that these negative findings are prevalent among relatively advantaged counties (as measured by minority population, education, and poverty levels, see Table 5), it appears that the quality and availability of middle-class jobs are placed at risk.

6. CONCLUSION

Most studies of prison privatization have focused on cost efficiencies (or inefficiencies) and comparisons of the "quality" of imprisonment with that found in public facilities. Our

research broadens the scope to consider local employment impacts. Consistent with recent studies, we find that prisons do not contribute to growth. Furthermore, we demonstrate that a state's decision to privatize some of its prisons does not improve employment prospects for the host county. In fact, it impedes them.

Proponents of privatization have long stressed its potential to induce a transformation of public agencies and services these agencies provide (McFarland, McGowan and O'Toole 2001; Osborne and Gaebler 1992). However, few studies have empirically examined this assertion. Our research into county employment impact of prisons takes initial steps towards assessing this claim; our findings challenge these optimistic claims. That is, in states undergoing a rapid shift towards privatization, prisons run by public agencies have reduced staffing to levels similar to private prisons (see Figure 3, especially trends in medium and maximum security facilities). In turn, we provide evidence that these shifts in staffing have consequences for the rural counties hosting prisons. Specifically, new prisons in states undergoing a rapid shift towards privatization are inversely related to employment growth.

These findings offer preliminary evidence bearing on an important but understudied phenomena. But this research is not offered as the final statement. On the contrary, this research may be of greater value for the questions that it poses. In the context of aggressive efforts to privatize prisons in states around the country (Burnett 2011; Caputo 2011; Vardon 2011), research into the impacts of such shifts is especially valuable. In addition to local employment impacts that we have examined, research into the quality and effectiveness of prison operations (escapes, riots, assaults and recidivism) would be salient. Given the findings that we present, the contrast should not be simply public versus private prisons (as is common), but the contrasts should consider the larger administrative context, including the extent and pace of shifts to privatization. While our focus is on corrections, when other

aspects of public administration and other public services are examined, it would also be advantageous to consider the larger context.

The direct effects offer the most obvious explanation for the inverse relationship between local employment growth and prisons in the context of rapid privatization, i.e., downward pressure on salary, benefits and staffing levels at prisons. But a potentially complementary explanation, one emphasizing indirect mechanisms, is also plausible. Hooks *et al.* (2004) suggest that prisons might impede employment growth due to the opportunity cost of a misguided investment. One of the ironies of the prison expansion boom of the 1980s and 1990s is that the resources that were used to fund this effort were often diverted from programs, such as education, that have a well documented and positive impact on local employment opportunities (Crookston and Hooks forthcoming). According to Hallett (2002:375, emphasis in the original), the incarceration boom diverted public resources “toward *prisons* and away from public programs in education and childcare.” Coming to terms with the impacts of privatization is of growing importance. Facing budget pressures, a growing number of states are contracting out public services, including corrections. Our findings suggest these trends will have deleterious consequences for rural counties and their efforts to expand and retain middle-class jobs.

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Table 1: Prison Privatization Trends 1995-2000 (by state)

| Rapid Growth in Privatization (above 18% growth between 1995 and 2000, 75 th percentile) | Slower Growth in Privatization (below 18% growth between 1995 and 2000, 75 th percentile) | Public Prisons, only |
|---|---|--|
| Arizona California Colorado New Jersey Oklahoma Pennsylvania South Dakota Texas Utah Wyoming | Alabama Arkansas Connecticut Florida Georgia Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nevada New Mexico New York North Carolina North Dakota Ohio Oregon South Carolina Tennessee Virginia West Virginia Wisconsin | Delaware Nebraska New Hampshire Rhode island Vermont Washington |

Sources: U.S. Department of Justice 1998, 2004.

Table 2: Descriptive Statistics^a

| | All non-metropolitan counties ^b | Rapid growth in privatization (at or above 75th percentile) | Slower growth in privatization (below 75 th percentile) |
|---|--|---|--|
| Number of states | 48 | 10 | 32 |
| Number of non-metropolitan counties | 2,242 | 487 | 1,755 |
| <i>Dependent Variable</i> | | | |
| Employment (1997-2004) except construction, count | 9.28 (0.02) | 9.28 (0.02) | 9.28 (0.02) |
| <i>Independent Variables</i> | | | |
| New Prison (1991-1997), count | 0.05 (0.18) | 0.08 (0.24) | 0.04 (0.16) |
| Established Prison (pre-1991), count | 0.11 (0.29) | 0.08 (0.27) | 0.11 (0.29) |
| <i>Control Variables</i> | | | |
| Employment (1990-1997) except construction, count | 10.27 (0.02) | 10.27 (0.02) | 10.27 (0.02) |
| Construction employment (1990-1997), count | 8.34 (0.01) | 8.34 (0.01) | 8.34 (0.01) |
| Percentage of labor force w/ BA (1980-1990) | 0.10 (0.04) | 0.10 (0.06) | 0.10 (0.04) |
| Percentage of labor force w/ HS diploma (1980-1990) | 0.10 (0.03) | 0.09 (0.04) | 0.10 (0.03) |
| Core manufacturing (1980-1990), percentage | 0.02 (0.02) | 0.02 (0.02) | 0.02 (0.02) |
| Core non-manufacturing (1980-1990), percentage | 0.02 (0.02) | 0.02 (0.02) | 0.02 (0.02) |
| Competitive sector (1980-1990), percentage | 0.04 (0.03) | 0.05 (0.04) | 0.04 (0.03) |
| State sector (1980-1990), percentage | 0.02 (0.02) | 0.03 (0.03) | 0.02 (0.02) |
| Commercial aircraft activity (1980-1990), flights per year | -0.01 (0.03) | -0.00 (0.04) | -0.01 (0.03) |
| Commercial bank deposits (1980-1990), \$1982 millions | 2.05 (2.17) | 1.54 (2.32) | 2.20 (2.10) |
| Per capita property tax (1977-1987), \$1982 millions | 0.19 (0.16) | 0.26 (0.22) | 0.17 (0.14) |
| General revenues of local government (1977-1987), \$1982 millions | 1.56 (1.05) | 1.72 (1.06) | 1.52 (1.04) |

^a All values are natural logarithms of observed change scores. As change scores include zero and negative values, the natural logarithm is based on the absolute value of the

observed value plus one (1). When the observed score was negative, the result was multiplied by negative one (-1).

^b Excludes District of Columbia, Alaska and Hawaii and individual counties with missing data for one or more variables included in models of interest (see Tables 3 and 4).

Table 3: Determinants of Employment Growth in Nonmetropolitan Counties, 1997-2004 (two-stage least squares, n = 2,242)^a

| Determinant | All non-metropolitan counties ^b | Rapid growth in privatization (at or above 75 th percentile) | Slower growth in privatization (below 75 th percentile) |
|--|--|---|--|
| Land-Deane Spatial Effects Term | -0.04 (0.05) | 0.02 (0.12) | -0.04 (0.04) |
| New Prison (1991-1997) | -0.26 (0.23) | -0.84 ** (0.30) | -0.00 (0.32) |
| Established Prison (prior to 1991) | -0.06 (0.18) | -0.36 (0.36) | -0.09 (0.21) |
| Employment (1991-1997 w/o construction) | 86.79 *** (9.93) | 118.68 *** (16.79) | 81.80 *** (11.43) |
| Construction employment (1991-1997) | 39.73 *** (5.73) | 25.31 * (11.26) | 46.34 *** (5.59) |
| % of labor force w/ BA (1980-1990) | 8.51 *** (1.77) | 5.02 * (2.43) | 8.52 *** (2.16) |
| % of labor force w/ HS diploma (1980-1990) | 0.96 (1.68) | -1.41 (3.08) | 1.98 (1.96) |
| % Core manufacturing (1980-1990) | -5.28 * (2.18) | -10.83 ** (3.91) | -4.90 * (2.33) |
| % Core non-manufacturing (1980-1990) | 1.69 (1.95) | 1.16 (3.22) | 1.52 (2.47) |
| % Competitive sector (1980-1990) | 0.43 (1.30) | 1.57 (2.04) | 0.67 (1.60) |
| % State sector (1980-1990) | 6.47 * (2.54) | 7.46 * (4.77) | 5.96 * (2.76) |
| Commercial aircraft activity (1980-1990) | -3.11 * (1.58) | -2.81 * (2.52) | -3.15 # (1.85) |
| Commercial bank deposits (1980-1990) | -0.01 (0.03) | 0.02 (0.03) | -0.02 (0.03) |
| Per capita property tax (1977-1987) | -0.52 (0.38) | -0.38 (0.49) | -0.35 (0.45) |
| General revenues of local government (1977-1987) | 0.12 * (0.05) | 0.35 *** (0.10) | 0.05 (0.06) |
| Constant | -294.20 ** (114.11) | -502.89 ** (162.49) | -298.58 * (136.88) |
| Adjusted R ² | 0.42 | 0.62 | 0.38 |
| | n = 2,247 | n = 487 | n = 1,755 |

#p < 0.05, *p < 0.05, **p < 0.01, ***p < 0.001; two-tailed test

^a Coefficients and standard errors have been multiplied by 100 to improve readability.

Table 4: Determinants of Employment Growth in Nonmetropolitan Counties with Slope Dummy Interaction Terms, 1997-2004 (two-stage least squares, n = 2,242)^a

| Determinant | With zero-order measure of privatization context | With slope dummy interaction terms |
|--|--|--|
| Land-Deane Spatial Effects Term | -0.04 (0.05) | -0.03 (0.05) |
| New Prison (1991-1997) | -0.25 (0.23) | ----- |
| Established Prison (prior to 1991) | -0.06 (0.18) | ----- |
| Rapid growth in prison privatization (75 th percentile or above, dummy variable) | -0.06 (0.14) | ----- |
| <i>Rapid</i> growth in private prisons (75 th percentile or above) | | |
| New Prison (1991-1997) | ----- | -0.67 ** (0.25) |
| Established Prison (prior to 1991) | ----- | -0.23 (0.27) |
| <i>Slower</i> growth in private prisons (below 75 th percentile or above) | | |
| New Prison (1991-1997) | ----- | -0.01 (0.28) |
| Established Prison (prior to 1991) | ----- | 0.01 (0.20) |
| Employment (1991-1997 w/o construction) | 86.76 *** (9.92) | 87.02 *** (9.95) |
| Construction employment (1991-1997) | 39.64 *** (5.69) | 39.45 *** (5.75) |
| % of labor force w/ BA (1980-1990) | 8.61 *** (1.75) | 8.68 *** (1.79) |
| % of labor force w/ HS diploma (1980-1990) | 0.89 (1.65) | 0.94 (1.68) |
| % Core manufacturing (1980-1990) | -5.43 * (2.12) | -5.70 * (2.16) |
| % Core non- manufacturing (1980-1990) | 1.72 (1.98) | 1.61 (1.95) |
| % Competitive sector (1980-1990) | 0.49 (1.34) | 0.47 (1.30) |
| % State sector (1980-1990) | 6.61 ** (2.46) | 6.73 ** (2.55) |
| Commercial aircraft activity (1980-1990) | -3.11 * (1.58) | -3.05 # (1.56) |
| Commercial bank deposits (1980-1990) | -0.01 (0.03) | -0.01 (0.03) |
| Per capita property tax (1977-1987) | -0.49 | -0.49 |

| | | |
|--|-----------|-----------|
| | (0.37) | (0.38) |
| General revenues of local government (1977-1987) | 0.12* | 0.13* |
| | (0.05) | (0.05) |
| Constant | -293.62** | -294.90** |
| | (113.55) | (113.92) |
| Adjusted R ² | 0.42 | 0.42 |

#p < 0.05, *p < 0.05, **p < 0.01, ***p < 0.001; two-tailed test

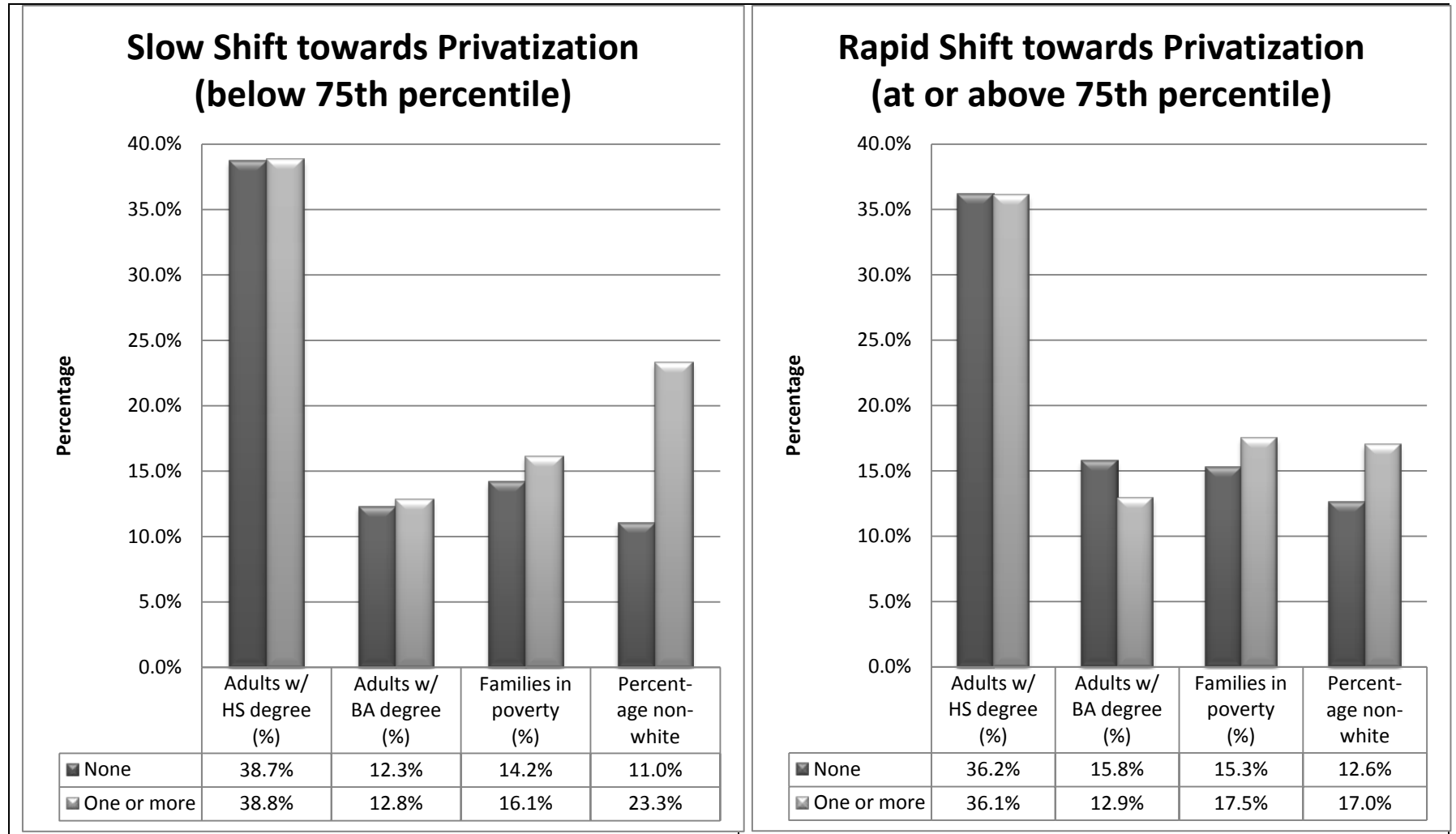
^a Coefficients and standard errors have been multiplied by 100 to improve readability.

Table 5: County Characteristics and Determinants of Employment Growth, 1997-2004 (two-stage least squares, n = 2,242)*

| | <i>Faster growth in private prisons (at or above 75th percentile)</i> | | <i>Slower growth in private prisons (below 75th percentile)</i> | |
|---|---|--------------------------|---|--------------------------|
| | Established prison, as of 1997 | New prison, 1997-2004 | Established prison, as of 1997 | New prison, 1997-2004 |
| <i>Relatively disadvantaged counties</i> | | | | |
| Percentage of adult populations with high school degree <i>below</i> median | N/S | N/S | N/S | N/S |
| Percentage of adult populations with bachelor's degree <i>below</i> median | N/S | N/S | N/S | N/S |
| Non-white population <i>above</i> median | N/S | N/S | N/S | N/S |
| Percentage of families in poverty <i>above</i> median | N/S | N/S | N/S | N/S |
| <i>Relatively advantaged counties</i> | | | | |
| Percentage of adult populations with high school <i>above</i> median | N/S | <i>Negative</i> | N/S | N/S |
| Percentage of adult populations with bachelor's degree <i>above</i> median | N/S | <i>Negative</i> | N/S | N/S |
| Non-white population <i>below</i> median | N/S | <i>Negative</i> | N/S | N/S |
| Percentage of families in poverty <i>below</i> median | N/S | <i>Negative</i> | N/S | N/S |

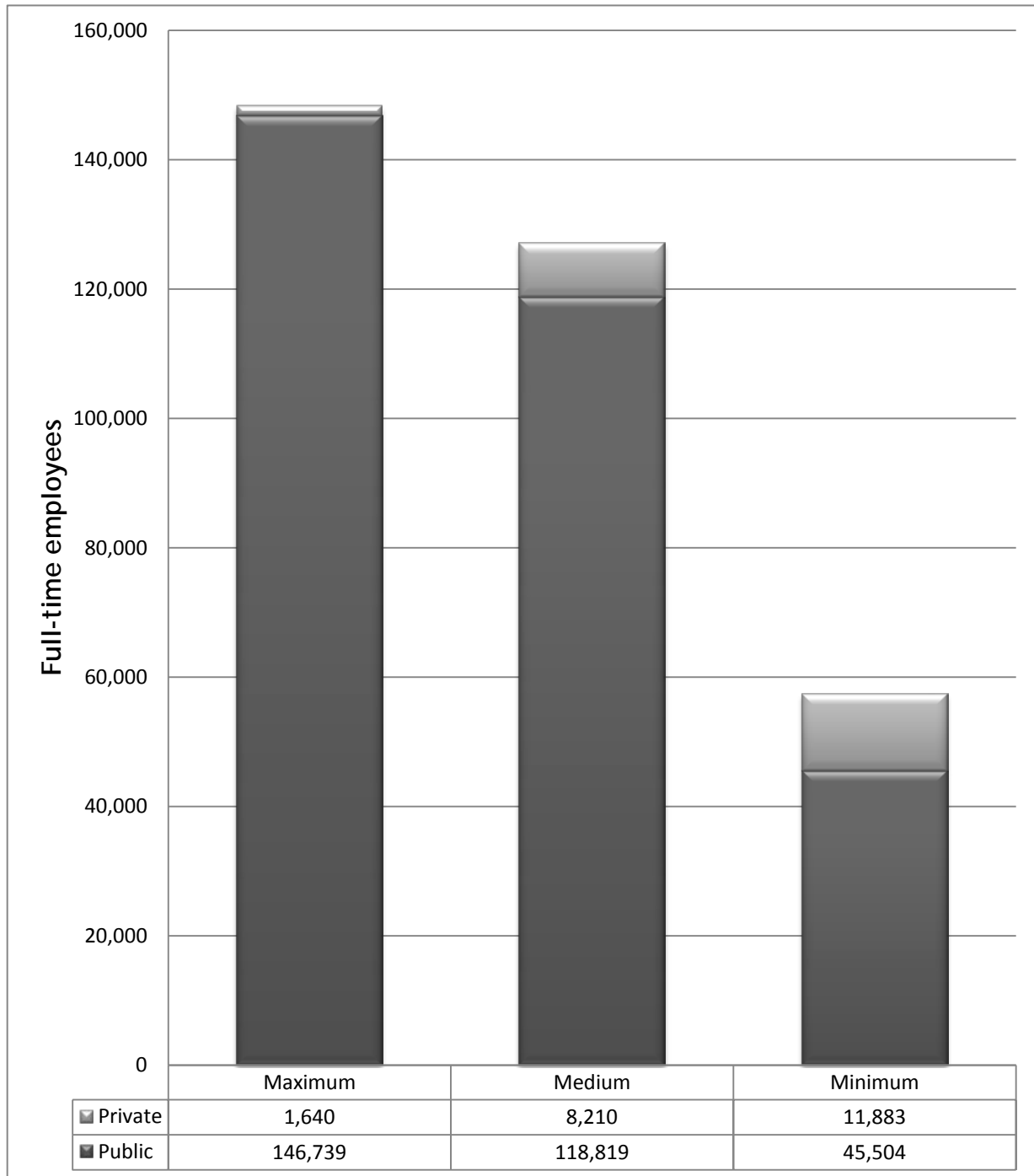
* After dividing counties at the median for selected characteristics (percentage of adult populations with high school degree, percentage of adult populations with BA degree, non-white population [percentage], and percentage of families in poverty), separate analyses were performed. Modeling followed the same procedures and included all variables presented in Table 4 (see above).

Figure 1: Selected Characteristics of Counties by Rate of Prison Privatization (see Table 1) and Prison Expansion in County (1990-97)



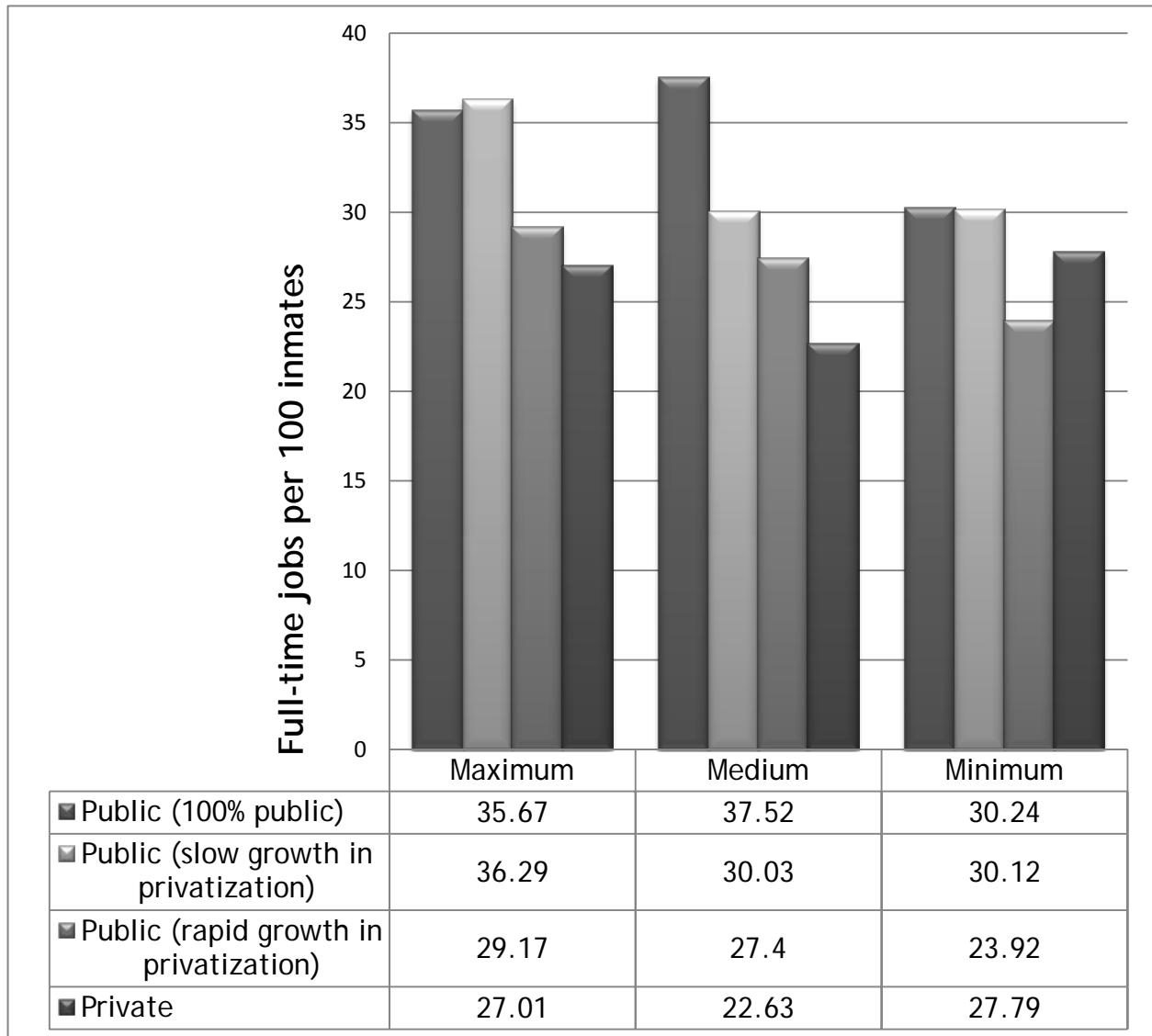
Sources: Data on prison privatization and prison growth from U.S. Department of Justice 1998, 2004. Data on county characteristics from U.S. Department of Commerce 1995.

Figure 2: Full-Time Employment at Public and Private Prisons in the United States, Non-Federal Prisons in the United States in 2005



Sources: Sources: U.S. Department of Justice 2005.

Figure 3: Full-Time Jobs per 100 Inmates in 2005^a, by Management Type and Growth of Prison Privatization between 1995 and 2000^b (Non-Federal Prisons in the United States)



Sources: U.S. Department of Justice 1998, 2004 and 2005.

^a Fulltime jobs per 100 inmates in 2005 was computed for each state, management type and security level. This measure was calculated by dividing the number of inmates (100s) by the number of full-time employees.

^b Growth of prison privatization between 1995 and 2000 was computed for each state by subtracting the percent of state prisons operated by private firms in 1995 from the comparable measure in 2000. The 75th percentile (or 18% growth between 1995 and 2000) demarcates slower and rapid growth. In Figure 3, staffing trends in states with *only* public prisons are contrasted to other states. In models of interest (see Table 3, 4 and 5), counties in these states are included with those where growth was below the 75th percentile.