

## WHO BENEFITS FROM JOB CREATION TAX CREDITS?

G. Jason Jolley, Ohio University  
E. Brent Lane, University of North Carolina at Chapel Hill  
Sharon R. Paynter, East Carolina University

### ABSTRACT

*Whether economic development job creation programs benefit existing residents or in-migrants has been a subject of numerous academic studies; some scholars advocate that incentive programs employing existing residents, particularly the unemployed, have greater economic impact. Utilizing confidential employment and tax records, the authors examine 49 companies receiving job creation tax credits to hire 1,179 new employees under North Carolina's William S. Lee tax credit program in 2006. These data provide a snapshot of who benefits from hiring under the state's job creation tax credit.*

### INTRODUCTION

In the last two decades the United States has experienced a large population shift as residents of Midwestern and Northeastern states migrated to the Sunbelt region. Sunbelt states offer a warmer climate, lower tax burdens, and better employment prospects. For existing residents of Sunbelt states, the rapid in-migration and population growth has been a double-edged sword. The influx of new capital and talent heightened the economic competitiveness of some metropolitan regions bringing with it increased competition for local jobs and strained public infrastructure in already congested urban areas. As state governments in the Sunbelt up the ante on economic development financial incentives to attract and retain business and industry, a vexing question is whether or not current residents, who are foregoing prospective tax revenue, are directly benefiting from new and expanding businesses.

Regardless of state of origin applicants for jobs must be treated the same. Legislatures have offered interview preference for residents within states as a way to take advantage of the multiplier effect of hiring existing residents. For example, there greater economic impact can be achieved by hiring an unemployed resident than an unemployed person from another state (Bartik, 1990). In addition, in-migrants bring with them higher public service costs (schools, roads, social services, and other infrastructure demands).

Extant models are unable to pinpoint exactly who benefits from tax incentive programs. Without primary data from businesses taking advantage of tax incentives there is no way to know whether jobs created are held by existing residents of a state or migrants from other places. There are no data on whether the unemployed are able to become re-employed or if the programs are sustainable.

While this research note contributes to the larger discussion of the benefit of tax incentive programs by focusing on the effectiveness of state job creation credits as economic development incentive tools to encourage companies to hire existing residents over in-migrants, it also offers a methodological challenge to collect, share, and analyze administrative data for the purpose of program evaluation. To set the stage for the discussion, a review of the academic literature on the beneficiaries of new job creation and the policy approaches utilized by governments to maximize economic opportunities for existing residents is provided. This review also discusses the policy implications and motivations for government policies favoring existing residents. Next, previously unavailable data on hiring patterns under the job creation tax credit program in North Carolina, a Sunbelt state experiencing rapid population growth over the past two decades, are shared. The North Carolina experience is used to discuss the implications of research for

areas experiencing in-migration. This case may benefit both academe and policy makers writ large by strengthening the connection between administrative and employment data with economic development strategy.

### LITERATURE REVIEW AND POLICY IMPLICATIONS

As state and local governments face unprecedented fiscal pressure in the current economic downturn, economic development incentive program are under increasing scrutiny. Policymakers want to ensure incentive programs, which cost taxpayers current or future revenue, realize intended benefits and fulfill policy goals of job creation. Since the Great Recession, the growth of unemployment rolls has turned much of the job creation focus to reemployment of displaced workers and mechanisms to reward companies hiring the unemployed. Extant literature suggests a well crafted, temporary federal job creation tax credit could boost job growth (Bartik & Bishop, 2009; Bivens, 2010). Policymakers and researchers are frequently concerned with deciphering who benefits from jobs created through economic development incentive programs. Typically, job creation benefits are couched in terms of impact analyses based on salaries generated through the new project (Davis, 1990). There has been vigorous and long-standing debate about the validity of these studies in the literature with doubts being cast on the worth of simple count models (Haveman & Kutilla, 1968; Courant, 1994 ).

Economic development that brings success (jobs, revenue, and population growth) in one area is often emulated in other places (Greenbaum et al, 2010). Political and fiscal considerations like impact fees (Burge & Ihlanfeldt, 2008), employment and population growth, per capita personal income, and earnings per job are regularly debated when new projects are considered (Marcus, 1999). Bringing in more workers can also mean increased expenditures for public services including schools, roadways, public safety, and governmental aid. Raising taxes to offset the costs associated with population growth due to economic development is not always a popular option (Altshuler & Gomez-Ibanez, 1993). In some locales, it may not be politically palatable for existing residents to subsidize job creation or relocation for workers from another state through foregone tax revenues. Even so, attracting industry, including those planning to transplant workers, through the use of economic development incentives is a frequently used component of a healthy economic development strategy.

Both the policy and method for estimating the impact of job creation programs have been heavily debated in academic circles. Ex ante approaches such as input-output models tend to be the preference over impact assessments like job chain analyses (for example see Felsenstein & Persky, 2007). Calls for studies of incentive packages judged by improvement to economic welfare rather than outputs like number of jobs created or capital investment (Courant, 1994) were issued. Resulting studies looked at growth relative to tax incentives (Bartik, 1991), projected relief of economic distress (Greenbaum, 2004), and job creation (Fisher, 2007).

Impact assessments focusing on number of new jobs and capital investment are limited, and more comprehensive cost benefit analyses hold the most promise for considering the impact of economic development projects through the lens of more comprehensive program evaluations (Bartik, 2005). Such comprehensive analyses would incorporate the fiscal impact of residents of others states relocating to take new jobs. With in-migration local governments may be forced to bear the brunt of increased public service costs, especially in sprawling urban environments where residential development consumes more in public service costs than it pays in tax revenue. American Farmland Trust's aggregation of Cost of Community Services (COCS) studies find that the median net financial benefit of various types of land

use varies widely. For every dollar spent on public services, residential development contributes 87 cents, commercial development \$3.57, and agriculture \$2.78 (American Farmland Trust, 2007).

There are two other ways that hiring current residents has advantages. Programs that generate jobs for people already living in a state yield a higher net benefit because these citizens produce no new public service demand. This demand can be further reduced if existing unemployed workers are removed from state and/or locally funded social safety net programs as a result of reemployment.

Due to the confidential nature of firm level hiring records, evaluations of the benefits of job creation is often limited to modeling based on aggregate data. Timothy Bartik is one of the foremost job creation modeling scholars. Bartik (1993) examined job creation from growth in the local economy and he found that only 25 percent of new job creation in a metropolitan region goes to local residents in the long run, which he defines as a five or more years. For policymakers focused on local economic growth, subsidizing employment opportunities for in-migrants may represent an unintended consequence of fiscal outlays and foregone tax revenues for economic development purposes.

## STRATEGIES TO SUPPORT LOCAL HIRING

At the local level, communities have engaged in a variety of strategies to promote hiring of local residents as part of the approval process for economic development projects. A common tool used by local governments is Community Benefits Agreements (CBA) entered into by developers or companies and a local government as a part of a development project. CBAs may include local hiring quotas for publicly funded projects (Pellicciotti, 1985) or first source hiring arrangements (Sullivan, 1998). More broadly, CBAs may include local job assurances post development (Been, 2010) and other amenities in exchange for project support (Fazio & Wallace, 2010). While a legal review of CBAs is well beyond the scope of this paper, it is worth noting that CBAs paint a complicated legal picture as preferences for residents directly discriminate against non-residents of a locality or state and *may* violate Constitution's commerce clause and/or privileges and immunities clauses (Clark, 1984/1985; Sullivan, 1998). In lieu of negotiated CBAs, other communities have attempted to award eligibility for incentives to those companies meeting an established set of community identified criteria, which include job quality and hiring of local residents (Jolley, McHugh, & Reid, 2011).

While CBAs are a commonly researched local government strategy aimed at employing existing residents, the academic and policy literature is largely silent on other strategies states could use on a statewide basis to promote job opportunities for existing residents over in-migrants. Given the plethora of economic incentives states utilize to promote economic growth, it is conceivable that some strategies might have a larger effect than others on local hiring. This paper examines the influence of one such policy, job creation tax credits, focused only on local hiring in North Carolina.

### WILLIAM S. LEE ACT IN NORTH CAROLINA

The William S. Lee Act (Lee Act) was North Carolina's first foray into the world of economic development incentives. The Lee Act existed from 1996 to 2006 in North Carolina and provided statutory tax credits to companies meeting job creation and investment thresholds. In 2007, the Lee Act was replaced with a slightly modified tax credit program, Article 3(J). Under the Lee Act, North Carolina's 100 counties were divided into one of five tiers based on levels of economic distress. Companies engaging in job creation, research and development, and/or machinery and equipment investment generated tax credits for these activities. These tax credits could be utilized toward up to 50 percent of a company's tax liability. As many companies may not have sufficient tax liability in the year of the job

hires or investment, these tax credits can be carried forward into future tax years. To promote increased hiring and investment in more distressed areas, companies engaging in these activities in more distressed counties were eligible for larger amounts of credits.

It is important to note that the effectiveness of the Lee Act tax credits in inciting company behavior to invest or hire workers the firms would not have otherwise hired is beyond the scope of this paper. Our purpose is to examine only characteristics of those hired under the program; there is no way to determine whether these jobs might have existed in the absence of the tax credits through analysis of the data available for this study. However, the Lee Act has been examined in several academic studies. Luger and Bae (2005) conducted an early study of the Lee Act, where they utilized a simulation model to estimate the gross and induced employment effects of the Lee Act tax incentives. While Luger and Bae (2005) found the program did induce a small number of new jobs in North Carolina, these jobs came at a high cost of \$147,463 per induced job.

Rondinelli and Burpitt (2000) also conducted an early study of site location factors in North Carolina by surveying 118 executives in internationally owned firms. The authors found tax incentives, including Lee Act tax credits, were low (8 out of 11) on the list of important location factors to internationally owned firms. A more recent study by Jolley and Lane (2010) utilized semi-structured interviews with company executives in firms receiving Lee Act tax credits. Executives generally reported the Lee Act had no bearing on their firms' decisions to invest or create jobs. In fact, these executives reported the tax credits as being an accounting function primarily managed by accountants.

## METHODS AND ANALYSIS

In 2008, two of the authors of this paper were engaged by the North Carolina General Assembly, the state's legislature, to study the effectiveness of the state's economic development incentive programs. To facilitate this effort, the North Carolina General Assembly passed legislation granting the authors of this study access to electronic and physical copies of tax filings for companies receiving Lee Act tax credits (N.C.S.L. 2008-134 Sec. 78). This unprecedented access to company employment and tax records gave the authors an opportunity to explore the impact of tax credits on employment.

North Carolina requires firms claiming the job creation tax credit under the Lee Act to provide the new employee's name, social security number, and hire date on state income tax forms. Physical tax forms for companies claiming the Lee Act job creation tax credit in 2006 were examined and separated according to whether or not a company claimed the job creation tax credit. Not all companies claiming the job creation tax credit reported new employee name, employee social security number, and job hire date on the tax forms. In some instances, new employees were hired and listed in prior tax years, and the credit was "carried over" into future tax years if the company lacked sufficient tax liability to claim the full credit in the year of hire.

Forty-nine companies reported information in 2006 for 1,179 new hires under the Lee Act. The authors transcribed information into a database for submission to the North Carolina Employment Security Commission (NCESC) to garner additional information about these new hires. NCESC provided two types of information: 1) the unemployment insurance history for each hire and 2) the year the person first received wages in North Carolina. Only 2006 hiring data was available to the authors.

The unemployment insurance history for Lee Act hires provides two levels of information. First, it indicates whether the hire was previously unemployed and receiving unemployment insurance benefits, which is operationalized as a "distressed worker." Second, the data also indicate whether an employee received unemployment insurance benefits after being hired under the Lee Act. Unemployment insurance

benefits are used as a proxy for the sustainability of jobs created by tax credits. The study is limited because the data do not indicate the duration of unemployment benefits and may be slightly inflated by manufacturing companies with routine annual or periodic layoffs for retooling.

Data on the year the employee first received wages in North Carolina is also important because this information is used to measure whether a person is a new resident of the state. Though there is the possibility that some inflation may occur by counting existing residents who are new entrants to the workforce, these data are the best available option to measure in-migration effects. Both unemployment and wage data serve as the best available alternative to identify the beneficiaries of job creation under the Lee Act including extending the analysis to consider whether jobs created are sustainable.

A series of descriptive tables follows to provide context for the discussion. Table 1 examines the number of persons receiving unemployment benefits in each year from 2003 to 2008 who were hired under the job creation tax credit provision of the Lee Act. The analysis reveals that nearly 14.8 percent of individuals hired in 2006 by companies claiming the job creation tax credit had previously been unemployed at some point in time that year. A similar percentage of people had previously been unemployed at some point in time in prior years. This indicates that some “distressed workers” under this proxy measure were hired by companies claiming the job creation tax credit.

Are these jobs sustainable? The data suggest they are not. Proxy measures for unemployment are generated by asking whether the person has previous employment in NC and assume that the person is an existing NC resident. The approach may understate the case of younger workers (less than 20). The percentage of the individuals hired and who returned to unemployment is examined, resulting in a finding that 19 percent do. This finding raises some questions about the sustainability of jobs created through the Lee Act, though the data are limited. Of the 1,179 people hired in 2006, approximately 135 (11.5 percent) were unemployed at some point in 2007, and 220 (18.7 percent) were unemployed at some point in 2008. The trends reveal that nearly 19 percent of the individuals hired under the job creation tax credit were unemployed for some duration within two years later. The Great Recession likely contributed to this unemployment in 2008, yet North Carolina’s unemployment rates were relatively low in 2007 and most of 2008. During the 2007 calendar year, the monthly unemployment rate in North Carolina never exceeded 5.1 percent; during the 2008 calendar year, the monthly employment rate in North Carolina ranged between 5.5 and 6.9 percent from January to October 2008, reaching higher rates in November (7.5 percent) and December (8.1 percent), respectively (North Carolina DES, 2012).

*Table 1: Number of Persons Receiving Unemployment Insurance Benefits for 2006 Lee Act Hires under Job Creation Tax Credit*

Year	Frequency	Percent
2003	168	14.25
2004	176	14.93
2005	167	14.16
2006	174	14.76
2007	135	11.45
2008	220	18.66

Table 2 assesses the unemployment history of Lee Act hires. Of the 1,179 individuals hired, nearly 56.7 percent never received unemployment during the period 2003 to 2008. Approximately 12 percent of hires had received unemployment insurance benefits in 3 or more years over the period. Without

information on the duration of unemployment, it is impossible to parse out the chronically unemployed from those with annual, routine layoffs for manufacturing retooling.

*Table 2: Total Years of Receiving Unemployment Insurance Benefits for 2006 Lee Act Hires under Job Creation Tax Credit*

Total Years Receiving Unemployment Benefits	Frequency	Percent
0	667	56.57
1	228	19.34
2	141	11.96
3	70	5.94
4	47	3.99
5	24	2.04
6	2	0.17
<b>Total</b>	<b>1,179</b>	<b>100.00</b>

Next, the year each hire first received wages in North Carolina was examined. The analysis revealed that 83.9 percent of hires had previously received wages (a proxy for previous NC employment) in 2005, which indicates that most of the new jobs associated with 2006 Lee Act job creation tax credits are being filled by existing North Carolina residents.

*Table 3: Year of Received First Wage in NC for 2006 Lee Act Hires under Job Creation Tax Credit*

Year	Frequency	Percent	Cumulative Percent
1992	411	34.86	34.86
1993	92	7.8	42.66
1994	50	4.24	46.9
1995	46	3.9	50.81
1996	34	2.88	53.69
1997	40	3.39	57.08
1998	39	3.31	60.39
1999	47	3.99	64.38
2000	60	5.09	69.47
2001	43	3.65	73.11
2002	21	1.78	74.89
2003	32	2.71	77.61
2004	31	2.63	80.24
2005	43	3.65	83.88
2006	150	12.72	96.61
2007	5	0.42	97.03
Missing	35	2.97	100

---

Total	1,179	100
-------	-------	-----

---

To gain a better understanding of the types of companies contributing to subsequent layoffs of new hires, a company-level analysis was conducted. As part of the confidentiality agreements, it was important that these data only be analyzed and presented in aggregate form to ensure individual companies are not identifiable. Companies were grouped into three-digit North American Industrial Classification System (NAICS) categories. This analysis reveals a smaller number of companies in machinery manufacturing and furniture manufacturing contributed most of the subsequent unemployment. It is common for manufacturing facilities in some subsectors to engage in temporary shutdowns for equipment retooling and workers meeting certain criteria may be eligible to receive unemployment benefits during this retooling period. As there is no information on the duration of unemployment, it is unclear if this unemployment represents temporary retooling layoffs or be indicative of the general decline in manufacturing employment. For example, automobile manufacturers are among those that often temporarily lay off workers to retool facilities in preparation for changing product lines such as for a new vehicle or the next model year of the same. For this reason and while no data is available for which companies, if any, engaged in retooling, laying off employees for retooling is most likely associated with machinery manufacturing—NAICS Code 333 (see Table 4).

*Table 4: Analysis of Companies by NAICS Code*

NAICS	Industry	Percentage of Companies	Percentage of Total Employees	Unemployed Employees In 2007	Unemployed Employees In 2008	
311	Food Manufacturing	2.04 (n=1)	27	2.48 (n=27)	7	5
313	Textile Mills	4.08 (n=2)	6	0.55 (n=6)	1	2
321	Wood Product Manufacturing	4.08 (n=2)	13	1.19 (n=13)	1	3
322	Paper Manufacturing	2.04 (n=1)	3	0.28 (n=3)	3	0
326	Plastics and Rubber Products Manufacturing	4.08 (n=2)	18	1.65 (n=18)	0	1
327	Nonmetallic Mineral Product Manufacturing	6.12 (n=3)	5	0.46 (n=5)	0	0
332	Fabricated Metal Product Manufacturing	14.29 (n=7)	58	5.33 (n=58)	0	16
333	Machinery Manufacturing	8.16 (n= 4)	233	21.42 (n=233)	85	65
334	Computer and Electronic Product Manufacturing	4.08 (n= 2)	4	0.37 (n=4)	1	0

336	Transportation Equipment Manufacturing	4.08 (n= 2)	13	1.19 (n=13)	1	5
337	Furniture and Related Product Manufacturing	8.16 (n= 4)	226	20.77 (n=226)	22	84
423	Merchant Wholesalers, Durable Goods	10.20 (n=5)	57	5.24 (n=57)	3	4
424	Merchant Wholesalers, Nondurable Goods	6.12 (n= 3)	80	7.35 (n=80)	2	10
484	Truck Transportation	2.04 (n=1)	4	0.37 (n=4)	0	0
511	Publishing Industries	4.08 (n= 2)	209	19.21 (n=209)	5	2
541	Professional, Scientific, and Technical Services	10.20 (n=5)	73	6.71 (n=73)	1	5
551	Management of Companies and Enterprises	2.04 (n=1)	29	2.67 (n=29)	1	0
811	Repair and Maintenance	2.04 (n= 1)	3	0.28 (n=3)	0	0
999	Federal Government or Self-Employed and Unpaid Family Workers	2.04 (n= 1)	27	2.48 (n=1)	1	2
Total		100.00 (n=49)	1088	100.00 (n=1088)	134	204

## CONCLUSIONS AND POLICY RECOMMENDATIONS

This study is constrained by data limitations but even a statistically crude analysis demonstrates the value of using administrative data to inform policy decisions, measure success, identify program benefits in real time, and review the sustainability of jobs created through tax incentive programs. If policy analysts and scholars have access to administrative data to evaluate economic development programs there is a greater likelihood that calls for accountability, accessibility, and program evaluations can be generated to increase public benefit via economic development projects.

Interactions between Departments of Commerce, Revenue, Labor and Employment Security may benefit from formalized data sharing plans to facilitate evaluation of tax credits relative to the companies that claim the incentives. States offering inducements for businesses should be able to measure the effectiveness of legislation leading to job creation and economic development; however, without the data these exercises are impossible. Using administrative data removes speculation and reliance on modeling estimates instead relying on actual hiring counts, numbers of jobs sustained, and measurable employment changes in a regular, consistent way.

These data provide a snapshot of who benefits from hiring under the jobs creation tax credit in North Carolina. Proxy measures reveal at least 83 percent of new hires are existing residents. The findings from



this study should encourage to policymakers concerned about whether economic incentives are used to employ and relocate non-residents to their state. While many businesses relocating to a state may bring a subset of employees along with the company, in North Carolina the primary beneficiaries of hiring under the job creation tax credit program are existing residents. Additionally, a portion of those hired under the job tax credit program (approximately 14 percent) were previously receiving unemployment benefits in the prior year. Using incentives offered through the program may have a potential to improve the unemployment rate in the state. The positive results are somewhat dampened with the discouraging finding that 18 percent received unemployment insurance benefits two years after being hired. Despite the good that comes with creating new jobs, the reality is that at least some portion of the new positions created under the tax credit are unsustainable. To fairly calculate economic benefit measures such as number of new hires and pre and post tax credit employment should be in place to ensure new jobs credited with tax benefits are “net” new jobs.

This research has limited external validity beyond North Carolina’s Lee Act Tax Credit program, but it plays an important role in highlighting the potential for expanding the role of state level employment security agencies in sharing administrative data with policymakers, bureaucrats, and others charged with developing, enforcing, and auditing job creation performance under incentive agreements. The access limitations on confidential employment data hamper the ability of policy analysts and scholars to effectively evaluation the success of these programs. Utilizing employment security data can enable policymakers to measure the success of numerous programs intended to re-employ displaced workers and upwardly employ trained and retrained existing workers with relatively little lag time in the data collection and immediately alert administrative agencies when companies are falling short of their required job performance goals. There is a general commonality of job creation credits in most state and local incentives agreements and a relatively inexpensive and effective manner to involve state employment and labor offices in sharing data as part of incentive agreements.

This research note makes the case for giving researchers and policy analysts access to administrative data to answer policy questions that determine who benefits from tax incentive programs, whether the jobs created are sustainable, and if setting employment targets boosts the benefits associated with tax credits. Unless administrative data from firms taking advantage of tax credits like the Lee Act provide administrative data for performance evaluation and policy analysis, any estimates are basically conjecture. It would be difficult to determine if programs do what is intended when the deals are made with respect to job creation and long-term, sustainable employment solutions.

## REFERENCES

- American Farmland Trust. 2007. Fact Sheet Cost of Community Services Studies.  
[http://www.farmlandinfo.org/documents/27757/COCS\\_09-2007.pdf](http://www.farmlandinfo.org/documents/27757/COCS_09-2007.pdf)
- Altshuler, A.A. & Gomez-Ibanez, J.A. 1993. Regulation for Revenue: The Political Economy of Land Use Exactions. Washington, D.C.: Brooking Institution and Cambridge, MA: Lincoln Institute of Land Policy.
- Bartik, T. 1991. Who benefits from state and local economic development policies? Kalazmazoo, MI: W.E. Upjohn Institute for Employment Research.

- Bartik, T.J. 1993. *Who Benefits from Local Job Growth: Migrants or the Original Residents?* *Regional Studies* 27, 4: 297-311.
- Bartik, T. 2005. Solving the problems of economic development incentives. *Growth and Change*, 36, 2: 139-166.
- Bartik, T.J. & Bishop, J.H. 2009. The Job Creation Tax Credit. *EPI Briefing Paper #248*.
- Been, V. 2010. Community benefits agreements: a new local government tool or another variation of the exactions theme? *University of Chicago Law Review*. 77, 1: 5-35.
- Bivens, J. 2010. Jobs and Wage Tax Cut Should Be Part of New Jobs Package. *EPI Policy Memorandum #158*.
- Burge, G. & Ihlanfeldt, K. 2008. Development impact fees and employment. *Regional Science and Economics*. 39, 1: 54-62.
- Davis, H. C. 1990. *Regional economic impact analysis and project evaluations*. Vancouver, British Columbia: University of British Columbia Press.
- Clarke, C.A. 1984/1985. Local hire and the state-market participant doctrine: a Trojan horse for the commerce power of Congress. *Cleveland State Law Review*. 33, 191-222.
- Courant, P. 1994. How would you know a good economic development policy if you tripped over one? Hint: Don't just count jobs. *National Tax Journal*, 47, 4: 863-881.
- Fazio, C.A. & Wallace, J. 2010. Legal and policy issues related to community benefits agreements. *Fordham Environmental Law Review*. 21, 541-558.
- Felsenstein, D. & Persky, J. 2007. Evaluating local job creation: A "Job Chains" perspective. *Journal of American Planning Association*, 73, 1: 23-34.
- Greenbaum, R.T., Russell, B.D., & Petras, T.L. 2010. Measuring the distribution of economic development tax incentive intensity. *Economic Development Quarterly*, 24, 2: 154-168.
- Haveman R. & Krutilla, J. 1968. *Unemployment, idle capacity, and the evaluation of public expenditures: National and regional analyses*. Baltimore: Published for Resources for the Future, by the Johns Hopkins University Press.
- Jolley, G. J. & Lane, E. B. (2010). The Limitations of State Economic Development Tax Credits. *International Journal of Business Research* 10, 5: 181-186.
- Jolley, G.J., McHugh, P., & Reid, D. 2011. Incentives 2.0: rewarding sustainable development and social accountability. *Economic Development Journal* 10, 3: 28-35.
- Luger, M.I. & Bae, S. 2005. The Effectiveness of State Business Tax Incentive Programs: The Case of North Carolina. *Economic Development Quarterly* 19, 4: 327-345.
- Marcus, M.J. 1999. What do we want from economic development? *Indiana Business Review*. 74, 10: 7-12.
- North Carolina Department of Commerce Division of Employment Security (DES). 2012. *Local Area Unemployment Statistics*. <http://esesc23.esc.state.nc.us/d4/> Accessed September 6, 2012.
- Pellicciotti, J. M. 1985. Local government resident hiring quotas: the import of a recent Supreme Court case. *Illinois Bar Journal*. 74: 136-140.

- Rondinelli, D.A. & Burpitt, W.J. 2000. Do government incentives attract and retain international investment? A study of foreign-owned firms in North Carolina. *Policy Sciences* 33, 2: 181-2000.
- Sullivan, P. 1998. In defense of resident hiring preferences: a public spending exception to the privileges and immunities clause. *California Law Review* 86, 6: 1335-1376.

## AUTHORS

G. Jason Jolley is an Assistant Professor of Rural Economic Development at the George V. Voinovich School of Leadership and Public Affairs at Ohio University. He holds a Ph.D. from North Carolina State University. He previously worked at the University of North Carolina at Chapel Hill where he co-led (with Brent Lane) the tax credit and incentive program evaluation for the North Carolina General Assembly discussed in this paper. His research has appeared in *Economic Development Quarterly*, *Review of Policy Research*, *Journal of Public Budgeting, Accounting, & Financial Management*, and other scholarly outlets.

E. Brent Lane is the Director of the Center for Competitive Economies at the University of North Carolina at Chapel Hill. He brings three decades of experience in state and regional government and the nonprofit sector integrating programs and personnel to refine and redirect targeted economic development initiatives. Lane has created and directed numerous innovative economic ventures, ranging from a seminal seed capital investment fund to the first technology incubator in North Carolina's The Research Triangle Park to the design and launch of the largest community development venture capital fund in the United States. He holds an MBA from UNC's Kenan-Flagler Business School.

Sharon R. Paynter joined the Department of Political Science faculty at East Carolina University in 2009. She holds a Ph.D. from North Carolina State University and completed a post-doctoral appointment at the Taubman Center for Public Policy at Brown University. Her research has appeared in *American Review of Public Administration*, *Policy Studies Journal*, *Administration and Society*, and other scholarly outlets.