Measuring the Effect of Job Creation Tax Credits

By

Tamoya Christie, University of the West Indies
Shiferaw Gurmu, Georgia State University
Zachary Hawley, Texas Christian University
David L. Sjoquist, Georgia State University
Laura Wheeler, Georgia State University

Georgia State University | ANDREW YOUNG SCHOOL
FISCAL RESEARCH CENTER

Research Question – How effective are job tax credits in creating jobs that would not have otherwise been created?

Most States have a jobs tax credit.

Prominent Credit at the state level
Tax Year 2009 = $42m utilized, Tax Year 2010 = $53m utilized

Does the credit just move jobs around?
Are the jobs permanent?
What kind of jobs are created?

Georgia's Job Tax Credit -

- Began in 1991
- Counties divided into 4 Tiers
- Credit Value and Qualifications vary by tier
- Tier designation is based on poverty level, per-capita income, unemployment rate
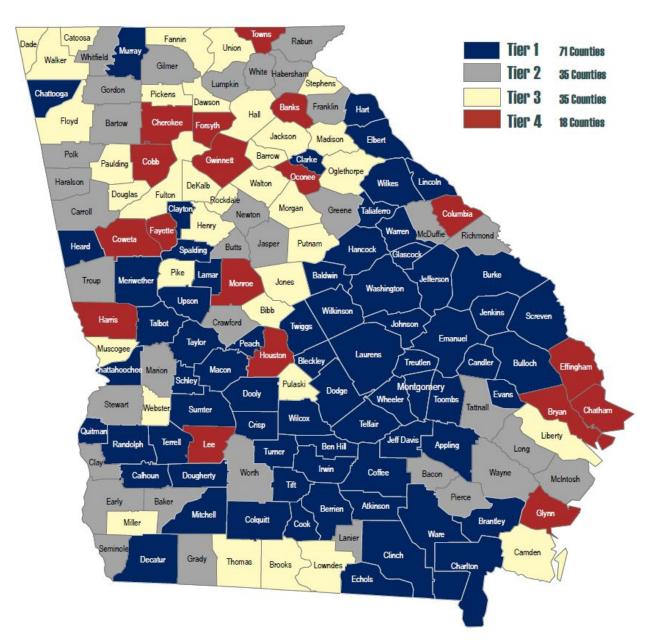- Typically does not include retail establishments
- Credits taken for 5 years

Other Significant Changes –

- Expanded definition of eligible industries
- Added Less Developed Census Tract status
- Added Wage Requirement
- Allowed the credit to be taken against withholding

General Parameters -

	Tier 1	Tier 2	Tier 3	Tier 4
1991-1992	Counties: 40 Jobs: 10 Credit: $1000	Not Eligible	Not Eligible	Not Eligible
1993	Counties: 40 Jobs: 10 Credit: $2000	Counties: 40 Jobs: 10 Credit: $1000	Not Eligible	Not Eligible
1994-2000	Counties: 53 Jobs: 10 Credit: $2500	Counties: 53 Jobs: 25 Credit: $1500	Counties: 53 Jobs: 50 Credit: $500	N/A
2001-Present	Counties:71 Jobs: 5 Credit: $3500	Counties:35 Jobs: 10 Credit: $2500	Counties:35 Jobs: 15 Credit: $1250	Counties:18 Jobs: 25 Credit: $750

2012 Job Tax Credit Tiers

Tier 1 71 Counties
Tier 2 35 Counties
Tier 3 35 Counties
Tier 4 18 Counties

Source: Georgia Department of Community Affairs

Related Literature

Jobs Tax Credit Evaluation -

- Gabe and Kraybill (2002)
- Chirinko and Wilson (2010)
- Faulk (2002)
- Hicks and LaFaive (2011)

Enterprise Zone Evaluation -

- Papke (1994)
- Greenbaum and Engberg (2004)
- Bondonio and Greenbaum (2007)
- Hanson (2009)

Data Sources –

1. County level data
2. Firm level data from Georgia Department of Revenue merged with Establishment level data from Georgia Department of Labor

Methodology –

1. Simple OLS/Time and Year Fixed Effects
2. Regression Discontinuity Model
3. Border County Comparisons

Descriptive Statistics, by Tier Status, 2002-2011

MEANS	Tier 1	Tier 2	Tier 3	Tier 4	All Tiers
Number of Observations	714	347	349	180	1,590
Total Employment	4,825	19,512	35,529	48,864	19,755
County Population	19,020	53,098	95,820	154,466	58,648
County Area	406	346	359	329	374
Interstate dummy	0.23	0.49	0.57	0.62	0.40
Value of Tier Credit	$3,500	$2,500	$1,250	$750	$2,477
Percent of Population with BA degree, 2000	10.50	13.45	16.33	24.59	13.98
Total qualified employment	2,287	9,295	17,755	25,840	10,062
Change in Qualified Employment	-33.02	46.05	6.47	258.28	28.27

Table 7. The Effect of the Job Tax Credit on County Employment in Qualified Industries (standard errors in parentheses)

Variables	[1]	[2]	[3]	[4]	[5]#
Credit	16.70**	-1.06	3.64	1.57	36.55
	(7.47)	(9.06)	(8.77)	(8.67)	(41.05)
Interstate		98.89	99.93	91.65	
		(89.30)	(86.68)	(84.66)	
BA		13.32	8.74	8.01	
		(8.69)	(8.38)	(8.21)	
Population		-3.74***	-3.34	-3.33	
		(0.45)	(0.43)	(0.42)	
Area		0.15	0.06	0.07	
		(0.26)	(0.26)	(0.25)	
JobGrowth			0.41***	0.38***	0.38
			(0.03)	(0.03)	(0.31)
Year dummies	No	No	No	Yes	Yes
County fixed effects	No	No	No	No	Yes
Constant	-340.41	-175.32	-174.14	-400.15	-890.78
	(103.13)	(221.79)	(215.78)	(248.47)	(581.02)
R^2	0.003	0.060	0.153	0.198	0.146
N	1542	1542	1510	1510	1510

Table 8. Regression Discontinuity Analysis
(standard errors in parentheses)

Variable	[1]	[2]	[3]
Treatment	102.30	-205.10	-427.02
	(122.37)	(516.93)	(622.96)
Rank	6.67	-47.12	-53.94
	(9.71)	(40.91)	(48.57)
Constant	-645.88	4837.99	7770.00
	(748.24)	(4623.86)	(7193.16)
R^2	0.002	0.008	0.004
N	333	362	359

Table 9. Employment Growth Across Border Counties (standard errors in parentheses)

| Variables | Border Counties | | |
| | [1] | [2] | [3] |
	Tiers 1 & 2	Tiers 2 & 3	Tiers 3 & 4
DiffCredit	-154.82	-46.40	-5136.42***
	(109.92)	(452.08)	(1887.00)
Constant	807.67	666.81	12543.43***
	(568.76)	(2901.02)	(4878.57)
R^2	0.003	0.000	0.020
N	649	452	359

Future Work –

1. Incorporate establishment level data
2. Account for interaction between less developed census tracts and tier effects
3. Control for spatial effects
4. Firm Duration

Comments and Suggestions
appreciated.

Thank you.