FIRM RECRUITMENT BY STATES IN THE UNITED STATES

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INTRODUCTION

WHEN LARGE FIRMS RELOCATE THEIR HEADquarters or manufacturing facilities, it is usually front-page news. These firms realize the potential benefits that they create in a local economy, and so, they require competing jurisdictions to offer incentive packages, just to consider their potential location. Evidence of interstate competition in the literature only suggests through limited examples that the competition among states for firms does exist (Bartik, 1994; Schweke, Dabson, and Rist, 1996). Although it may seem puzzling that the literature in this field has not tested these claims, due to the lack of effort into developing key data into a manageable data set, these questions have been ignored. This paper overcomes the data problem by creating an innovative panel data set that explicitly captures state recruitment spending.

This paper is the first such study to test empirically for the presence of competition at the state level using high-quality recruitment spending data. It uses spatial econometric techniques to analyze whether or not rivalry among states is resulting from some type of spatial relationship. The source of competition can occur as an interdependence effect—where one state reacts to another state's spending or spatial correlation from a common unobserved characteristic. The results reveal strong interdependence effects between competing states' spending on recruitment and suggests that states are competing with one another to relocate new or footloose firms into their jurisdiction.

Phillips and Goss (1995), Wasylenko (1997), Fisher and Peters (1997), and Buss (2001) provide a detailed review of the economic development literature; while, in particular, the economic growth literature provides a broader view of economic development looked at, more so, from the macroeconomic or regional viewpoint and offers the basic concepts that motivate policy. The foundations of this literature began in the early 1900s when economic base models were developed and employed as a possible explanation for regional economic growth (Krikelas, 1992). Leontief (1951) developed an alternative method of analyzing economic growth through input-output models. Regardless of the widely recognized weaknesses, this framework underlies much of the governmental analysis of alternative economic development policies. Macroeconomic growth theory offers insights into the factors within economies that drive economic growth, including technological change (Romer, 1996), productivity (Baumol, 1986), and increasing returns to knowledge (Romer, 1986). On the other hand, the cumulative causation theories (Kaldor, 1970; Skott and Auerbach, 1995; Myrdal, 1957) emphasize the role of history in economic growth—where preexisting conditions determine the growth of a particular economy. And, Carlino and Mills (1987) suggest that the employment growth differentials across counties are likely due to different economic, demographic, and climatic conditions, rather than active policy decisions.

The firm location literature motivates an alternative regional perspective. This perspective recognizes that while resource endowments attract resource-oriented firms and output markets attract market-oriented firms, process-oriented firms can be attracted to locales with lower regulatory costs or taxes. One lesson from this literature emphasizes the need for a better business climate by creating a more business-friendly location and allowing firms to grow and develop naturally (Schmenner, 1982; Plaut and Pluta, 1983; Wayslenko, 1991). A more targeted perspective focuses solely on the taxes that businesses pay (Newman and Sullivan, 1988).

The literature largely dismissed the notion that taxes mattered in location decisions before 1980 (Carlton, 1979), but the evidence since then provides stronger support that taxes do influence firm location. For example, Bartik's (1991) meta-analysis of the existing estimates from 1979 – 1991 indicates that the interregional elasticity of business activity with respect to taxes range over [-0.1, -0.6] with an average of -0.3.

The intra-regional elasticity of business activity with respect to taxes is interesting as well. It analyzes what is occurring within a state rather than only between them and the estimated magnitude is much greater than the interregional elasticity. Bartik (1991) and McGuire (1985) conclude that the intra-regional elasticity is approximately -1.5.

Wayslenko (1997) and Buss (2001) argue that in a metropolitan market labor, energy, and transportation and construction costs are approximately the same throughout the metropolitan area—it follows that if these major costs do not vary across the metropolitan area, fiscal incentives should play a greater role in the intra-regional firm location decision.

Theoretical models of interjurisdictional competition provide the framework for understanding the competitive process between these governments. Surprisingly, some of the tax competition literature suggests that intergovernmental competition is wasteful in its attempt to acquire mobile nonresidential capital (Wilson, 1999). This finding is quite suspect though, because, this is the government's analogue to Tiebout's 1956 argument for mobile households – intergovernmental competition is efficiency enhancing (Turnbull and Niho, 1986). Analyzing the targeted incentive literature, Black and Hoyt (1989) and King, McAfee, and Welling (1993) show that even though targeted firm recruitment is normally construed as a negative-sum game, when two locales are competing for one firm the result may be welfare improving. Some empirical research examines the nature of competition among competing governments. Anderson and Wassmer (1995) and Man (1999) use specialized data for individual metropolitan areas in Detroit and Indiana, respectively, while Edmiston and Turnbull (forthcoming) use county data in Georgia. Rork (2005) analyzes recruitment competition among Southern states and finds that tax-based industrial recruitment policies are most effective within the short- rather than long-time horizons. Closely related to this paper, De Bartolome and Spiegel (1995) take advantage of economic development spending data from a survey by the National Association of State Development Agency to analyze competition for domestic and foreign investment among states.

When states are recruiting businesses, one of their stated goals is to bring firms in that offer high-paying jobs. Interestingly, De Bartolome and Spiegel (1995) are able to capture this effect in their empirical results. Edmiston and Turnbull's (forthcoming) study of tax incentives and other offered benefits in Georgia counties finds a result comparable to De Bartolome and Spiegel, where counties or states that are fiscally restrained, because of either budget shortfalls or excessive domestic spending, are not capable of aggressively recruiting business or investment. At the local level, Anderson and Wassmer (1995) find competitive effects for 112 cities in the Detroit metropolitan area.

This paper proceeds as follows: the second section examines the new data used in this study. The third section presents the empirical model that extends the model presented in Edmiston and Turnbull (forthcoming). The fourth section discusses the methodology followed and the spatial econometric techniques employed to analyze the competition between states. The fifth section reviews the results and the sixth section concludes.

DATA

The empirical model tested here builds on Edmiston and Turnbull (forthcoming). They develop a theoretical and empirical model of interjurisdictional competition among Georgia counties for economic development. The "recruitment tournament" theoretical model suggests the forces that drive the competitive process at the county level and imply the variables to be used in the empirical model. This paper extends their analysis to the state level. Among others, they suggest controlling for (1) public demand pressures, (2) amount of fiscal distress, (3) ideology of the public, (4) existing industrial base, and (5) demographics. Because of the nature of the data, this paper uses slightly different variables, in some cases.

Various statistical agencies report the exogenous data used in this study. Most variables run from 1997 through 2005; however, the panel used here is from 1997 – 2003. Population and demographic variables are from the Census of Population, while own source revenue, intergovernmental aid transfers are from the Census of Governments (U.S. Census Bureau). The employment, unemployment, and wage variables are from the Bureau of Labor Statistics (U.S. Department of Labor) and gross state product is from the Bureau of Economic Analysis (U.S. Department of Commerce). The governor dummy variable is available from different sources, but *Dictionary* by LaborLawTalk.com provides an easy search tool to check the political history of governors. The Tax Foundation reports the state corporate income tax rates. Finally, all monetary values are deflated to the base-year 2000. The Bureau of Labor Statistics provides a region-specific deflator for the Northeast, South, Midwest, and West regions and each state is deflated according to the appropriate regional deflator (U.S. Department of Labor).

The *percentage change in population*, *total wages*, *percent urban employment in the state*, and *unemployment rate* measure the public demand pressures for recruitment spending. Successful development can have the effect of curtailing future development (Bruecker, 1995). Thus, the coefficients on these variables are expected to be negative, except for the unemployment rate, because greater unemployment might induce increased spending on recruitment to counteract a high level of unemployment. Education might also affect the public demand for firm recruitment spending. Two measures for the level of education in a state are the *percent with high school degrees* and the *percent with college degrees*. It seems that states with more educated labor forces likely have a location advantage, ceteris paribus. The Edmiston and Turnbull (forthcoming) model predicts that states with a location advantage spend less on firm recruitment effort. This suggests that the effect is negative for the education measures.

Gross state product (*GSP*), *state corporate income tax rate* (*SCITR*), *own source revenue* and the amount of *intergovernmental aid* control for fiscal distress and size of government in the state. Higher levels of *GSP* indicate that a state enjoys a higher level of economic well-being (potentially less fiscal distress) and therefore has less pressure to pursue firm recruitment. This suggests a negative coefficient for *GSP*. At the same time, states that have higher tax rates must compensate businesses for relocating into their high-tax jurisdiction. If this compensation effect is at work, the coefficient for *SCITR* is positive. Own source revenue is a measure of the size of government and fiscal distress, where states with decreasing or low levels of own source revenue are smaller or fiscally distressed states. Population is a control on the *RHS*—so the effect of own source revenue is independent of the state's size. A positive coefficient implies that larger or fiscally distressed governments have greater pressure to increase spending on recruitment. Finally, intergovernmental aid measures the fungiblity of funds. Since, recruitment spending is not typically earmarked for intergovernmental aid, a positive coefficient implies that increased aid corresponds to increased spending on recruitment, and that means those transfers are fungible.

Whether the elected governor is a Republican or Democrat (*Gov Dummy*) measures the ideology of the public. The governor dummy variable equals one if Republican, and zero otherwise. The other dichotomous political-ideology variables indicate whether all three chambers (House, Senate, and Executive) are Republican (*All 3 Rep*), or all three are Democrat (*All 3 Dem*), and whether the year is an election year (*Elect Yr*). A priori, there are no assumptions about the expected sign for these variables.

The growth literature explains the premise for why basic economic activity is a source of growth. The *proportion of manufacturing employment* to *total private employment (PROPMAN)* is a measure of the industrial base or concentration a state has in manufacturing. There are alternative rationales that explain why this relationship might be positive or negative. For example, a state that has a large manufacturing base (high proportion of manufacturing employment) need not increase its recruitment spending to attract firms. An alternative rationale suggests that because a diversified economy is one of the stated goals, since this reduces sector specific affects in the state economy, a state with a high proportion of employment in manufacturing may seek to increase its recruitment spending to diversify the state's employment concentration.

Population, *percent black*, and the *percent poverty* measure demographic differences. Dependent upon individual preferences, the coefficient for *percent black* might be either positive or negative. According to Fischel (2001), the *percent poverty* measure is positively related to recruitment spending by the state. He argues that higher income states are less interested in industrial growth because of the negative externalities they create. This implies that poorer states or states that have higher unemployment would desire increased spending for development within the state. *Population* controls for the different sizes of states. Finally, year dummies control for fixed effects over time.

The expanded state recruitment spending panel data set represents one major contribution of this paper. This data is obtained manually. Computing the necessary information requires meticulous examination of the relevant budget documents from each state. The extensive careful effort needed to put together this data probably explains why a similar exercise has not been done.

The initial problem is acquiring the budget documents themselves. Many states do have the current proposed budget available online through their state budget agency's Web site and some have archives of those budgets. Typically, though, not all of the budget documents are that easily available. They must be obtained directly through the budget agency, the governor's office, or the state library.

Going through the state library is the method of last resort, because normally there are page fees associated with obtaining copies. The relevant recruitment spending data is generally housed within the state's department of economic development, so within the state budget, this department (or equivalent) is taken out to analyze the spending.

The best method for recording recruitment spending data is using actual expenditures from previous years – sometimes this trend is available in a current year's proposed budget. When this is not available, actual appropriations passed by the legislature and signed by the governor are used. While this is not the best measure, since actual spending and the amount of appropriations sometimes differ, it is the best measure available; this is rarely necessary.

The observations for recruitment spending extend from 1997 through 2003 and include 23 of the 31 eastern states. The states included are Alabama, Arkansas, Connecticut, Florida, Georgia, Indiana, Iowa, Kentucky, Louisiana, Maine, Massachusetts, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia. The eight remaining states, Delaware, Illinois, Maryland, Michigan, Mississippi, North Carolina, West Virginia, and Wisconsin, are not available. These states either require an extensive amount of additional effort due to the availability of the budget documents or because spending that is recorded in their budgets is not clearly defined. At this time, including states west of the Mississippi is not feasible because of the amount of time required to obtain the data. However, bifurcating the United States and analyzing only the eastern half should control for different ideologies and preferences across the different regions.

EMPIRICAL MODEL

The lack of high-quality data for a state's firm recruitment spending leaves many questions regarding the empirical form of the underlying model unanswered. Extending Edmiston and Turnbull's (forthcoming) analysis of Georgia counties to the state level, the initial task is to evaluate the basic model. Therefore, the estimation procedure tests for a basic relationship between economic recruitment spending and the explanatory variables discussed in the previous section. Ordinary least squares (OLS) tests these fundamental relationships. The OLS specification enforces the assumptions of no spatial interdependence or spatial correlation. Under these assumptions, we have the following model to estimate:

$$\textbf{(1)} \quad Y = X'\beta + \upsilon,$$

where Y is an $nt \times 1$ dependent variable vector, measuring the amount of recruitment effort by each state's economic development department or equivalent counterpart. X is an $nt \times k$ matrix of explanatory variables described earlier. Also, implicitly assumed in the OLS equation is that the error term is distributed $N \sim (0, \sigma^2)$.

Understanding the underpinnings of the basic model in equation (1) provide the foundation for the spatial analysis. Because this is the first study that uses high-quality recruitment data, the first step is to find a reasonable model that explains state's recruitment efforts. The theoretical and empirical model in Edmiston and Turnbull (forthcoming) provide the rationale for a model at the county level —this study extends their analysis to the state level. Then, after testing the robustness of the model, tests are performed to examine whether there is a spatial aspect to the model—unaccounted for in the basic model. Allowing for spatial interdependence and correlation in equation (1) yields

$$\textbf{(2)} \quad Y = X'\beta(I - \lambda W')^{-1} + (I - \rho W')^{-1}\varepsilon(I - \lambda W')^{-1},$$

where ε is assumed i.i.d. The known weighting matrix W, which defines the neighboring relationship, has zeros across the diagonals and the row and column sums are standardized to equal one. The coefficient of spatial interdependence, λ, measures the interdependence between recruitment efforts of neighboring states. Likewise, ρ is the coefficient of spatial correlation, which measures the amount of correlation an unobserved/unmeasured common characteristic has among neighboring states.

The main interest of this paper is the spatial component of competition among state's recruitment spending, which can be analyzed in two ways, and both have quite appealing aspects to them. First, spatial interdependence may enter through the conditional mean, which creates interdependence between the different observations on the dependent variable. For example, if a neighboring state increases its recruitment efforts, the home state might react by increasing its recruitment efforts. Anderson and Wassmer (1995) and Edmiston and Turnbull (forthcoming) find such spatial interdependence among municipalities and counties, respec-

tively, by using the geographic distance between jurisdictions to define the neighboring relationship. The second possibility is spatial correlation, which occurs if there is an unobserved/unmeasured spatial characteristic in the error term that is correlated with other observations. This type of spatial correlation is typically referred to as the spatial error model.

Defining the neighboring (spatial) relationship among states requires the use of a spatial weighting matrix. The weighting matrix does not require that neighbors be defined only by geographic distance; a more appropriate measure may be defining the relationship in terms of cohorts or economic distance. For example, using the *Proportion of Manufacturing Employment* (*PROPMAN*) in a state to define the neighboring relationship implies states that have similar proportions of employment in manufacturing are close neighbors of one another. Following Case, Rosen, and Hines (1993), the elements of the weight matrix W is defined as:

(3) $w_{ii} = 0$ and

$$w_{ij} = 1/ |\overline{PROPMAN}_i - \overline{PROPMAN}_j| / S_i ;$$

$$S_i = \sum 1/ |\overline{PROPMAN}_i - \overline{PROPMAN}_j ,|$$

where $\overline{PROPMAN}$ is the sample period mean.

METHODOLOGY

This paper follows the McGarvey, Walker, and Turnbull (2007) methodology for estimating a spatial interdependence/correlation model using GS2SLS with a GMM estimator for the error structure. Unlike Case, Rosen, and Hines (1993), the structural disturbances are allowed to be correlated across states but do not have a specified first-order spatial error structure. Instead, it is only assumed that the $nt \times nt$ weight matrix is non-singular and the error term, ε, is independent and identically distributed. Therefore, with the functional form of the error structure unknown, a fully efficient estimator such as Maximum Likelihood cannot be used, as it requires the error structure to be normally distributed. Kelejian and Prucha (1998) and Lee (2003) suggest a GS2SLS procedure for estimating the unknown parameters in a cross-sectional setting while Hernandez-Murillo (2004) applies Kelejian and Prucha's GS2SLS method to a panel data model. This study adopts the Hernandez-Murillo GMM technique that applies when using panel data.

The basic OLS model provides the framework in which to extend the analysis using better estimating techniques. The advanced methodology, which allows for a spatial relationship, uses two-stage least squares (2SLS), maximum likelihood estimation (MLE), and generalized spatial two-stage least squares (GS2SLS) with a generalized method of moments (GMM) estimator for the error structure. These techniques analyze discriminately the spatial component between states recruitment spending and the explanatory variables. Differences between these models have important consequences for statistical inference. If there is no spatial interdependence in the conditional mean or spatial correlation in the error structure, OLS is the best linear unbiased estimator. In the case where spatial correlation does exist, OLS is no longer efficient; however, the estimates will be unbiased. Furthermore, in the case where spatial interdependence and correlation exist, the OLS estimates are biased and inconsistent. Using the GMM correction for the error structure is efficient when there is spatial correlation; however, this procedure creates greater variance in the parameter estimates, consequently if there is not a spatial correlation in the error, the GMM estimates are not efficient. MLE provides upper bounds on the parameter estimates, but this is under the assumption that the errors are normal.

RESULTS

The results indicate that there is a strongly significant spatial interdependence process in the conditional mean and that there may be spatial correlation in the error. There is not an analytic expression for the variance-covariance matrix of ρ, therefore, the standard error and t-statistic cannot be calculated. These standard errors can be calculated by either a Monte Carlo simulation or bootstrap method and this is not performed here.

Table 1 reports the empirical results from estimating the model using OLS, 2SLS, MLE, and GS2SLS-GMM. These results are estimated with *PROPMAN* as the weight matrix specification. The major interest of this paper is the spatial component in the empirical model that captures the competitiveness of state's recruitment strategies. The significant parameter estimates on the spatial interdependence coefficient, λ, in the fourth, sixth, and eighth column of Table 1 indicate states are competing with one another. Because the OLS model omits the interdependence relationship among states, the results are

Table 1
Recruitment Spending Regression Results

	OLS		*2SLS*		*MLE*		*GS2SLS-GMM**	
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
Y=Rec. Spend.	*Coef.*	*t*	*Coef.*	*t*	*Coef.*	*t*	*Coef.*	*t*
Constant	158.65	2.84	96.30	1.48	73.20	1.59	99.29	1.60
Pop Growth	-9.00	-3.10	-10.60	-3.32	-6.53	-2.58	-10.75	-3.46
Tot Wage	3.83E-05	0.14	9.18E-04	2.04	-2.75E-04	-1.34	8.26E-04	1.94
PCT Unemp	-7.41	-3.23	-9.17	-3.58	-1.47	-0.73	-8.89	-3.61
GSP	-9.17E-05	-0.47	-6.33E-04	-2.12	2.38E-04	1.54	-5.63E-04	-1.99
Own Source	-1.02	-1.27	-2.39	-2.35	-0.16	-0.25	-2.18	-2.21
AID	1.23	2.42	0.83	1.47	0.71	2.06	0.80	1.49
SCITR	0.55	0.71	1.40	1.57	0.38	0.69	1.29	1.53
Gov Dummy	1.37	0.41	-1.81	-0.47	3.38	1.37	-1.75	-0.47
Prop Manuf	-2.90	-7.27	-0.60	-0.60	-1.85	-5.02	-0.59	-0.62
Population	5.58E-06	2.76	7.48E-06	3.25	-4.59E-06	-0.31	6.73E-06	3.09
Pct Black	0.37	2.01	0.64	2.85	0.03	0.22	0.60	2.80
Poverty	-0.20	-0.29	-1.20	-1.42	0.19	0.36	-1.16	-1.42
d02	-3.21	-0.74	-4.74	-1.01	-0.30	-0.14	-4.68	-1.13
d01	-5.80	-1.23	-16.92	-2.53	2.09	0.67	-16.17	-2.62
d00	-7.26	-1.26	-19.08	-2.48	3.10	0.73	-18.30	-2.55
d99	-3.24	-0.59	-13.22	-1.86	3.63	0.97	-12.85	-1.96
d98	-2.56	-0.44	-9.67	-1.41	2.36	0.63	-9.68	-1.54
d97	-0.25	-0.05	-4.27	-0.78	1.76	0.64	-4.36	-0.88
All 3 Dem	-7.15	-2.06	-5.50	-1.45	-1.88	-0.70	-5.17	-1.42
All 3 Rep	-9.27	-2.12	-12.24	-2.51	-2.62	-0.91	-11.32	-2.46
Elect. Yr	-0.29	-0.10	-0.55	-0.17	0.13	0.07	-0.38	-0.13
PCT HS	-0.63	-1.15	-0.41	-0.68	-0.09	-0.20	-0.43	-0.75
PCT Coll	-0.72	-1.74	-0.50	-1.10	-1.11	-3.71	-0.55	-1.27
PCT Urban	-0.04	-0.47	0.15	1.40	-0.11	-1.97	0.14	1.30
λ			0.85	2.58	0.33	3.33	0.86	2.72
ρ					-0.85	-10.87	-0.10	
# of obs	161		161		161		161	
R Sqr (R-bar)	0.68				0.80 (0.77)			

*There is not an analytic expression for the variance-covariance matrix of ρ; therefore, the std error and t-stat. cannot be calculated.

biased. The preferred methodology is the GS2SLS-GMM approach, as this model is less restrictive on the error structure than MLE.

The highly significant GS2SLS-GMM estimate of spatial competition among states is not surprising, given the abundance of anecdotal evidence in the popular press. These are, however, the first empirical estimates of the degree to which it occurs. In the eighth column of Table 1, the estimate of λ is 0.86 and this implies that when a neighboring state increases its recruitment spending by $100, the home state reacts by increasing its recruitment spending by $86. Because the 2SLS estimation ignores the possibility of additional spatial competition among an unobserved/unmeasured characteristic in the error term, it underestimates the interdependence effect by 0.01. The results from the GS2SLS-GMM regressions in the seventh and eighth column of Table 1 indicate that the exogenous controls have some interesting insights as well, and are discussed below.

The public demand pressures for recruitment spending offer an appealing insight into the difference between what these two variables measure. The *percentage change in population* is negative and strongly significant and is one measure of the growth occurring in a state. This implies that high-growth rate states do not prefer increased spending on firm recruitment—the state's high rate of growth relative to other states means that their current economic development policy is working. The *Population* variable measures the size of a state. This variable is positive and strongly significant and indicates that,

while controlling for the growth rate, larger states prefer increased firm recruitment spending.

The significant negative coefficient on *percent unemployed* suggests that the public's desire to decrease the amount of unemployed through increased recruitment efforts is overridden by the dampening effect unemployment has on the state. Another measure of public demand for recruitment spending is *total wages*. Nearly significant at the 5 percent level, it indicates that states with higher wage levels are aggressively pursuing additional recruitment through higher spending. A state that has succeeded at increasing the wage levels of its population is not withdrawing from the interstate competition. An alternative justification is that increased spending may also be a compensation effect, since firms relocating to higher wage states have greater labor costs—and so the state must spend more to recruit firms. These results are contrary to those found by De Bartolome and Spiegel (1995).

CONCLUSION

Previous research looking into interjurisdictional competition for economic development provides the motivation for a closer analysis of fiscal policies and strategic interaction among state governments. The lack of high-quality data to explain the factors driving interregional competition for firms is why there exist only a few empirical studies. This paper uses a GS2SLS-GMM spatial model, among others, to test whether states are spatially interdependent. It evaluates competition for firms as an interdependence effect between competing states and allows for the possibility of unobserved or unmeasured spatial correlation in the error structure. The results provide a strong indication that states are interdependent in their effort to recruit firms.

Only a few studies are able to empirically estimate a similar interdependence effect. Edmiston and Turnbull (forthcoming) study the choice of incentives that are offered to relocating firms from county survey data in Georgia. Anderson and Wassmer (1995) examine the effect of offering new incentives to relocating firms in the Detroit Metropolitan Area. Man (1999) analyzes the various factors that affect tax incremental financing (TIF's) among cities in Indiana. Using a direct measure of recruitment effort, this paper takes advantage of a gap in the empirical literature by developing a panel data set to analyze competition among states to recruit firms. These are the first results to empirically test for competition and the results indicate that states compete to recruit firms. This effect is very large in magnitude and significance, which implies the decision by states to recruit firms is strategically competitive behavior.

The individual explanatory variables also provide interesting insights. The percent growth variable implies that rapidly growing states spend less recruitment effort; while on the other hand, states with large populations spend more recruitment effort. Another result shows that states ridden with high unemployment and poverty do not aggressively recruit firms by increasing their effort. Furthermore, decreases in own source revenues and GSP imply fiscally distressed states spend more effort to recruit firms. A state that is more competitive might be able to strengthen its economic position. Finally, states increase their recruitment effort to offset a location disadvantage they have in education and higher wages.

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