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LAW AND ECONOMICS OF REGULATING LOCAL ECONOMIC DEVELOPMENT INCENTIVES†

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The states are engaging in fierce competition amongst themselves to keep and attract business and industry. Economic development incentives ("EDI"), which include tax breaks and other economic incentives not generally available to local businesses, are used to induce companies to stay and expand locally or to bring new businesses to the state. Opponents of EDI are attacking in court. The principal legal issue is whether local EDI violate the Dormant Commerce Clause. At the same time, both opponents and proponents of local EDI are urging Congress to intervene, under the congressional commerce power, either to limit local EDI or to federally protect and encourage them. An important legal issue concerning such congressional action is whether the Commerce Clause empowers Congress to regulate local EDI. This Article outlines the legal framework for analyzing these issues. The purpose, however, is not to resolve the issues but to show where, within both the legal and political frameworks, federal, state, and local officials could and should consider economic analysis. Thereafter, this Article reaches its principal purpose: to explain certain ways and means of using economic analysis to inform legal and political decision-making about local EDI.

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I. INTRODUCTION

State and local leaders across the United States are faced with a cacophony of voices on how to create jobs, stir capital investment locally, and protect local jobs against outsourcing to sister states and other countries. Often, however, these voices find some unison about how state money can be spent to accomplish these important goals: economic development incentives ("EDI").

EDI take many forms[1] and morph wildly as they wind their way through state legislatures, county boards, and city councils. In general, EDI are publicly sponsored or publicly funded projects or spending measures that seek to encourage local job creation, job retention, or capital investment. The breadth of the definition is commensurate with the large variety of tactics that state and local governments have employed to accomplish their economic goals.

Recent EDI packages doled out in North Carolina are good

1. EDI have included investment tax credits, (targeted) job tax credits, property tax abatements, reduced financing rates (e.g., through tax breaks on the principal and interest paid on Industrial Revenue Bonds used to fund the project), sales tax refunds, training incentives, community development block grants, site preparation, and enterprise zone credits including general income tax credits, job grants, real property improvements income tax credits, and so on. *See, e.g.*, Irwin Speizer, *The China Trade*, BUS. N.C., May 2006, at 36 (discussing North Carolina's use of direct grants, state tax credits, training assistance, and direct incentives from county governments to lure Lenovo to the Research Triangle area).

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examples of the incentives that state and local governments—working together—can provide businesses to stay in a state or move there. North Carolina is home to such Fortune 500 companies as Bank of America, Wachovia, Lowe's, and Nucor.[2] However, North Carolina is also home to many companies in the textile, furniture, and farming industries. North Carolina's bread-and-butter manufacturing jobs have been hit hard by small- and medium-sized companies shuttering plants, laying off workers, and filing for bankruptcy. Since 1997, North Carolina has lost over 170,000 textile and apparel jobs.[3]

To combat the loss of well-paying jobs in the traditional manufacturing sectors, North Carolina turned its focus to technology as the source of new service and manufacturing jobs. North Carolina legislators, Governor Mike Easley, and several municipal leaders jumped at the opportunity to lure Dell, the global personal computer manufacturer, to North Carolina. Dell contacted North Carolina officials in late 2003 revealing that it needed a new East Coast assembly plant, but made it clear that it wanted exemption from state income taxes and about 150 acres of land free of charge.[4] The stage was then set to see which state would come up with a package that suited Dell.

The scramble to land Dell not only pitted North Carolina against other states, but also pitted county against county within North Carolina. The state-level competition quickly became a two-horse race between North Carolina and Virginia. North Carolina's initial hurdle in fashioning an incentive package that could beat Virginia was Virginia's corporate tax rate, which was 6% compared to 6.9% in North Carolina.[5] North Carolina was also worried that Dell might reject both Virginia and North Carolina in favor of Texas, where the corporate tax rate is zero.[6] The final North Carolina state package offer was worth more than $242 million,[7] including $225 million in corporate tax credits and almost $18 million in grant funding extended to Dell by state leaders.[8] However, the incentives package also included an exemption from state-mandated wage rates which allowed Dell to reduce the average annual pay from $31,000 to $28,000, and an agreement that Dell would be required to

2. Chris Roush & Dail Willis, *Banks on It*, BUS. N.C., August 2005, at 28.
3. Speizer, *supra* note 1, at 30.
4. Irwin Speizer, *Dell Pickle*, BUS. N.C., March 2005, at 46.
5. *Id.* at 51.
6. *Id.* at 52.
7. Amy Martinez, *Motion Challenges Dell Incentives*, NEWS & OBSERVER, June 24, 2005, at 1D.
8. Speizer, *supra* note 4, at 46.

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pay only 50% of the cost of health insurance for its employees.[9]

While North Carolina was generating a strategy to compete against other states, its counties and cities were also formulating plans to lure Dell. Davidson, Forsyth, and Guilford counties marshaled significant resources to fund competing packages for Dell. Intra-county rivalries also developed, as the Guilford County cities of High Point and Greensboro brought competing offers. The "winner" in the local sweepstakes was Forsyth County, which offered a $37 million package.[10] Forsyth's land, cash, and infrastructure package[11] exceeded the Guilford County/Greensboro offer of $15.6 million, High Point's $8.8 million land and incentive proposal, and Davidson County's $23.1 million in cash and land.[12]

North Carolina won the competition for Dell with a package that works out to $10,756 annually in incentives for each $28,000-per-year job.[13] The interstate and intrastate competition for Dell seemingly shows the argument for EDI—they deliver new companies to new markets and create jobs in the process.

North Carolina also set the stage for exploring a second major type of EDI: retention incentives. Just as North Carolina's bid for Dell was to bring the PC giant to North Carolina, its offer to Lenovo[14] was designed to retain the jobs that the PC-maker had in North Carolina in the wake of its acquisition of IBM's PC business.[15] IBM maintained a large presence in North Carolina's Research Triangle Park ("RTP") with over 13,000 employees.[16] Lenovo acquired the IBM business unit that occupied most of the IBM campus at RTP.[17] As a result of the international merger of China's largest PC manufacturer and one of the United States' largest technology companies, North Carolina was forced to compete with New York and Georgia to keep the jobs that Lenovo controlled.[18] The final package from North Carolina, which carried the day, was worth $14 million and was generated through state and local grants and job development incentives.[19]

9. *Id.* at 54.
10. Martinez, *supra* note 7, at 1D.
11. *Id.* at 8D.
12. Speizer, *supra* note 4, at 55.
13. Dan Zehr, *Incentives Raise Question: What Price Jobs?*, AUSTIN AM.-STATESMAN, Nov. 29, 2004, at A1.
14. Speizer, *supra* note 1, at 30.
15. Evan Ramstad, *Advertising: Lenovo Steps out of IBM's Shadow*, WALL ST. J., Feb. 10, 2006, at B3.
16. Speizer, *supra* note 1, at 32.
17. *Id.*
18. *Id.* at 35.
19. *Id.* at 36.

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The North Carolina experience shows the various forms that EDI take, the magnitude of the costs and possible benefits involved, and the nature of the competition created when states and localities compete with each other. This Article sketches the broad legal frameworks that could affect the regulation of EDI and explains the kinds of economic analyses that could and should affect legal and political decisions involving the creation and regulation of EDI. Specifically, we develop a method for constructing a performance benchmark that essentially permits history to be re-run as if the EDI had not been adopted, and use it to explore the impact of EDI on state or local performance.

II. LEGAL REGULATION OF LOCAL EDI UNDER THE COMMERCE CLAUSE

The competition between the states using EDI to attract and keep businesses is so fierce as to have been described as "economic development incentives wars."[20] Arguments are made that Congress should intervene inasmuch as "a congressional act is usually seen as the most rational solution to the interstate subsidy wars."[21]

The debate within a state about the wisdom and validity of EDI can also become hot and start an intrastate political and legal war. Lawsuits around the country have challenged the legality of EDI under state constitutions and other local laws. These suits are almost always unsuccessful.[22]

Local opponents also use another tactic in challenging EDI,

20. Timothy J. Bartik, *Economic Development Incentive Wars*, W.E. UPJOHN INST. FOR EMP. RES. (1995), *available at* http://www.upjohninst.org/publications/newsletter/tjb_595.pdf.

21. Ivan C. Dale, *Economic Development Incentives, Accountability Legislation, and a Double Negative Commerce Clause*, 46 ST. LOUIS U. L.J. 247, 249 (2002).

22. Most state constitutions contain provisions,

> known collectively as "public purpose" requirements, that expressly limit the authority of their state and/or local governments to provide financial assistance to private enterprises. . . . Starting in the 1930s, state courts, faced with an array of state efforts to counteract the economic effects of the Great Depression, began to widen the definition of public purpose. . . . During the closing decades of the twentieth century, state courts increasingly expanded the scope of permissible public purposes, so that by the end of the century virtually every state supreme court had upheld at least some economic development programs that involved direct assistance—including cash grants, low-interest loans, and tax breaks—to individual firms.

Richard Briffault, *The Disfavored Constitution: State Fiscal Limits and State Constitutional Law*, 34 RUTGERS L.J. 907, 910-13 (2003); see also Maready v. City of Winston-Salem, 342 N.C. 708, 729-30, 467 S.E.2d 615 (1996) (discussing the legislative intent behind local EDI).

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arguing that the Commerce Clause of the U.S. Constitution indirectly prohibits state and local EDI. The argument simply stated is: EDI amount to regulation of interstate commerce and the Commerce Clause gives Congress, not states or localities, the exclusive power to "regulate commerce . . . among the several states."[23] This argument relies on the preemptive, inferential effect of the flip side of the Commerce Clause, which is commonly known as the Negative or Dormant Commerce Clause.[24]

At the same time, people favoring and opposing congressional regulation of local EDI are also arguing about the Commerce Clause.[25] The debate between them is whether local EDI sufficiently affect interstate commerce to empower Congress to regulate them under the Commerce Clause.[26]

In the end, the meaning of the Commerce Clause—both the straight up and flip (or dormant) sides—answers the debate about congressional power to regulate state and local EDI. The meaning of the Commerce Clause also answers the intrastate debate about their federal, constitutional validity. Indeed, to some extent, both debates turn on the same issue: whether local EDI amount to regulating interstate commerce. To the extent they do, Congress can regulate EDI and, concomitantly, state and local governments cannot enact them (and most certainly cannot do so to the extent Congress actually enacts regulatory legislation).

A. *Dormant Commerce Clause Limits On Local EDI Absent Congressional Regulation*

For most law students, few topics in constitutional law (or in

23. U.S. CONST. art. I, §8, cl. 3.

24. For recent discussions of the Dormant Commerce Clause that cover matters closely related to the subject of this Article, see David S. Day, *Revisiting* Pike*: The Origins of the Nondiscrimination Tier of the Dormant Commerce Clause*, 27 HAMLINE L. REV. 45 (2004); Bradley W. Joondeph, *Rethinking the Role of the Dormant Commerce Clause in State Tax Jurisdiction*, 24 VA. TAX REV. 109 (2004); Bradford C. Mank, *Prudential Standing and the Dormant Commerce Clause: Why the "Zone of Interests" Test Should Not Apply to Constitutional Cases*, 48 ARIZ. L. REV. 23 (2006); Shelley Ross Saxer, *Eminent Domain, Municipalization, and the Dormant Commerce Clause*, 38 U.C. DAVIS L. REV. 1505 (2005); Norman R. Williams, *Why Congress May Not "Overrule" the Dormant Commerce Clause*, 53 UCLA L. REV. 153 (2005); Rebekah G. Ballard, Note, *"Dormant" No More: The Supreme Court Awakens the Dormant Commerce Clause in* Granholm v. Heald, 41 WAKE FOREST L. REV. 303 (2006); Mary F. Wyman, Note, *The Dormant Commerce Clause: Economic Developments in the Wake of* Cuno, 39 IND. L. REV. 177 (2005).

25. Steven R. Little, Comment, *Corporate Welfare Wars: The Insufficiency of Current Constraints on State Action and the Desirability of a Federal Legislative Response*, 22 HAMLINE L. REV. 849, 865 (1999).

26. *Id.* at 880.

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any other course) are more shadowy than the Dormant Commerce Clause. Especially troubling to see with certainty is how far the Dormant Commerce Clause limits the power of states to affect interstate commerce, as determined (to some unknown extent) by the scope of the power the clause gives Congress to regulate such commerce, in the absence of actual, congressional regulation. Moving the entire issue out of the shadows is probably not possible and is not even attempted here. Rather, the present purpose is only to explain briefly the broad framework established by the Supreme Court for deciding when local EDI violate the Dormant Commerce Clause. This framework reveals where and how, in the legal analysis, courts can profitably use the economic analysis discussed later in this Article.

A starting point is the proposition, which the Court has announced and endorsed, that a state is free to enact laws and even structure its tax system "to encourage the growth and development of intrastate commerce and industry,"[27] even when the purpose is to "compete with other States for a share of interstate commerce."[28] The stated reason for giving the states this freedom could not be better put, even by the most conservative Chicago economist: "[S]uch competition lies at the heart of a free trade policy."[29] So, a fair statement of the general constitutional rule, in terms of the Dormant Commerce Clause, is that—not unlike businesses competing to get customers in their doors—the states are free to compete among themselves to get those businesses within their borders.

This freedom, however, is not unlimited by the Dormant Commerce Clause. With respect to EDI-like laws, the Supreme Court developed a four-prong test for deciding constitutionality: such a law will satisfy the Dormant Commerce Clause if the law (1) applies to an activity with a substantial nexus within the taxing State; (2) is fairly apportioned; (3) does not discriminate against interstate commerce; and (4) is fairly related to the services and benefits provided by the State.[30]

The most difficult of these requirements to define and apply is the prohibition against discrimination. As recently as last year, in

27. Boston Stock Exch. v. State Tax Comm'n, 429 U.S. 318, 336 (1977).
28. *Id.* at 336-37.
29. *Id.* at 337.
30. Kristin E. Hickman & Sarah L. Bunce, DaimlerChrysler v. Cuno *and the Constitutionality of State Tax Incentives for Economic Development,* 4 GEO. J.L. & PUB. POL'Y 15 (2006) (citing Complete Auto Transit, Inc. v. Brady, 430 U.S. 274, 279 (1977)).

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Granholm v. Heald,[31] the Court restated and applied this long-established exception to the general rule of free competition among the states: a state's laws cannot discriminate against interstate commerce.[32] This exception to the general rule of free competition is so strong that such discriminatory laws "face 'a virtually *per se* rule of invalidity.'"[33]

The *Granholm* case challenged laws of Michigan and New York that regulated the sale and importation of wine.[34] Basically, the laws allowed only in-state wineries to make *direct* sales to consumers.[35] Out-of-state wineries could sell to local consumers only indirectly through wholesalers and retailers.[36] The Court began its analysis in *Granholm* with the exceptional rule that even though states are generally free to engage in economic competition between themselves, the Commerce Clause prohibits competing with laws that discriminate against interstate commerce.[37]

Time and again the Court has held that, in all but the narrowest circumstances, state laws violate the Commerce Clause if they mandate "differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the latter."[38] This rule is essential to the foundations of the Union. The mere fact of nonresidence should not foreclose a producer in one State from access to markets in other States. States may not enact laws that burden out-of-state producers or shippers simply to give a competitive advantage to in-state businesses. This mandate:

> [R]eflect[s] a central concern of the Framers that was an immediate reason for calling the Constitutional Convention: the conviction that in order to succeed, the new Union would have to avoid the tendencies toward economic Balkanization that had plagued relations among the Colonies and later among the States under the Articles of Confederation.[39]

The next (and perhaps larger) question in *Granholm* was: where is the discrimination in this case? Out-of-state wineries could, after

31. 544 U.S. 460, 466 (2005).
32. *Id.* at 466.
33. *Id.* at 476 (citing City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978)).
34. *Id.* at 465.
35. *Id.* at 466.
36. *Id.* at 469, 470.
37. *Id*. at 487 (citing Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 579 (1986)).
38. *Id.* at 472 (citing Or. Waste Sys., Inc., v. Dept. of Envtl. Quality, 511 U.S. 93, 99 (1994)).
39. *Id.* (citing Hughes v. Oklahoma, 441 U.S. 322, 325-26 (1979)).

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all, sell to local consumers.[40] The discrimination by Michigan, said the Court qua economists, was partly in the "cost differential" that could "effectively bar small [out-of-state] wineries from the . . . [local] market."[41] The discrimination by New York was in granting "in-state wineries access to the State's consumers on preferential terms," which seems to be a more general explanation of discrimination that would include Michigan's cost differential.[42]

Many forms of EDI, however, are facially very different—in form and function, i.e., how they work—from the Michigan and New York laws that *Granholm* condemned. The typical form of local EDI involves providing various kinds of tax benefits. This difference is unimportant, in itself, in avoiding scrutiny under the Dormant Commerce Clause with respect to discrimination. The Supreme Court has been clear: "No State, consistent with the Commerce Clause, may 'impose a tax which discriminates against interstate commerce . . . [as] by providing a direct commercial advantage to local business.'"[43]

Typical EDI are also different from the *Granholm* laws in terms of how they function. Usually, EDI do not attract, keep, or help local business by prohibiting or burdening—and thereby discriminating against—out-of-state business as in *Granholm*. Rather, EDI typically work by discriminating, *if at all*, in favor of the locals in the sense of preferring and giving them tax and other benefits not given to any other business, including other businesses in and out of state.

Whether this second, functional difference matters under the Dormant Commerce Clause was a meta issue behind the important recent case *Cuno v. DaimlerChrysler*.[44] This case challenged the validity of an Ohio state investment tax credit and a City of Toledo property tax exemption provided for the defendant manufacturer by state and local laws.[45] The Sixth Circuit Court of Appeals rendered a split decision: the Dormant Commerce Clause allows the property exemption but prohibits the tax credit.[46]

Significantly, the court started with the notion that a "tax statute's 'constitutionality does not depend upon whether one focuses upon the benefited or the burdened party.'"[47] Therefore,

40. *Id.* at 474.
41. *Id.*
42. *Id.* at 473.
43. Boston Stock Exch. v. State Tax Comm'n, 429 U.S. 318, 329 (1977) (quoting Nw. States Portland Cement Co. v. Minnesota, 358 U.S. 450, 458 (1959)).
44. 386 F.3d 738, 743 (6th Cir. 2004).
45. *Id.* at 741.
46. *Id.* at 746, 748.
47. *Id.* at 743 (quoting Bacchus Imports, Ltd. v. Dias, 468 U.S. 263, 273

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"[t]he fact that a statute 'discriminates against business carried on outside the State by disallowing a tax credit rather than by imposing a higher tax' is . . . legally irrelevant."[48] What matters in finding constitutionally prohibited discrimination is whether or not the challenged law "'will in its practical operation work discrimination against interstate commerce' by 'providing a direct commercial advantage to local business.'"[49]

The investment tax credit in *Cuno* was equally available to in- and out-of-state businesses.[50] However, the credit unconstitutionally discriminated because the effect was to prefer a local business that expands in Ohio over a local business that invests out of state.[51] Both businesses are required to pay the Ohio franchise tax.[52] However, the business that expands outside the state faces "a comparatively higher tax burden because it will be ineligible for any credit against its Ohio tax."[53] For this reason, "Ohio's investment tax credit cannot be upheld under the [Dormant] Commerce Clause of the U.S. Constitution."[54]

This reasoning seems somewhat consistent with language of the later-decided Granholm case in which the Supreme Court, again qua economists, reiterated, "[w]e have 'viewed with particular suspicion state statutes requiring business operations to be performed in the home State that could more efficiently be performed elsewhere.'"[55] While Ohio's tax credit did not literally require businesses to expand at home, the law impacted the cost effectiveness and eschewed the microeconomic, efficiency analysis.

On the other hand, the court in *Cuno* upheld the city property tax exemption.[56] To qualify for the exemption, a business had to agree to maintain a specified level of employment and investment in the state.[57] Conditional property tax exemptions are not immune from scrutiny under the Dormant Commerce Clause, but they are unconstitutional only when the exemption "requires the beneficiary to engage in another form of business in order to receive the benefit

(1984)).

48. *Id.*

49. *Id.* (quoting Bacchus, 468 U.S. at 268; West Lynn Creamery, Inc., v. Maxwell, 512 U.S. 186, 201 (1994)).

50. *Id.* at 743.

51. *Id.* at 743, 746.

52. *Id.* at 743.

53. *Id.*

54. *Id.* at 746.

55. Granholm v. Heald, 544 U.S. 460, 466 (2005) (quoting Pike v. Bruce Church, Inc., 397 U.S. 137, 145 (1970)).

56. *Cuno*, 386 F.3d at 748.

57. *Id.* at 746.

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or [when the exemption] is limited to businesses with a specified economic presence."[58] The Dormant Commerce Clause allows property tax exemptions when, as in this case, "the conditions for obtaining the favorable tax treatment are related to the use or location of the property itself."[59] Such conditions do not "violate the anti-discrimination principle" or "independently burden interstate commerce."[60]

The Cuno opinion explained the fundamental difference between such a property exemption and a prohibited investment tax credit:

> Unlike an investment tax credit that reduces pre-existing income tax liability, the personal property exemption does not reduce any existing property tax liability. The exemption merely allows a taxpayer to avoid tax liability for new personal property put into first use in conjunction with a qualified new investment. Thus, a taxpayer's failure to locate new investments within Ohio simply means that the taxpayer is not subject to the state's property tax at all, and any discriminatory treatment between a company that invests in Ohio and one that invests out-of-state cannot be attributed [to] the Ohio tax regime or its failure to reduce current property taxes. Additionally, the personal property tax exemption is internally consistent because, if universally applied, the new property would escape tax liability irrespective of location. Every new investment, no matter where undertaken, would be exempt from a tax. Thus, businesses that desire to expand are neither discriminated against nor pressured into investing in Ohio.[61]

The bottom-line difference seems to be, in efficiency terms used by the Supreme Court in Granholm,[62] that the property tax exemption in this case, despite its conditions, would have no effect (or an insignificant effect) in encouraging or promoting inefficiency when a business is deciding where to operate and expand its activities.

The *Cuno* decision caused big reactions. The Supreme Court granted certiorari[63] and then vacated and remanded the Sixth

58. *Id.* at 747.
59. *Id.* at 746.
60. *Id.* at 747.
61. *Id.* at 747-48.
62. "We have 'viewed with particular suspicion state statutes requiring business operations to be performed in the home State *that could more efficiently be performed* elsewhere.'" Granholm v. Heald, 544 U.S. 460, 475 (2005) (citing Pike v. Bruce Church, Inc., 397 U.S. 137, 145 (1970)) (emphasis added).
63. Cuno v. DaimlerChrysler, Inc., 386 F.3d 738 (6th Cir. 2004), *cert. granted*, 126 S. Ct. 36 (U.S. Sept. 27, 2005) (No. 04-1704).

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Circuit's decision[64] but only for procedural reasons[65] without reaching the merits or substance of the case.[66] The Court therefore postponed deciding the extent to which the states can enact local EDI, but the right plaintiffs in the right case in the right court will eventually require the Court to reach the issue.

Also, because *Cuno* invalidated Ohio's investment tax credit, Ohio's U.S. Senator George Voinovich introduced the Economic Development Act of 2005.[67] The purpose of the proposed legislation is to affirm that states have the authority to offer tax incentives to businesses for the purpose of stimulating economic development. In main part, the bill very simply provides:

> Congress hereby exercises its power under Article I, Section 8, Clause 3 of the United States Constitution to regulate commerce among the several States by authorizing any State to provide to any person for economic development purposes tax incentives that otherwise would be the cause or source of discrimination against interstate commerce under the Commerce Clause of the United States Constitution, except as otherwise provided by law.[68]

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64. DaimlerChrysler Corp. v. Cuno, 126 S. Ct. 1854 (2006).

65. The plaintiffs in the case were taxpayers who, the Court decided, lacked standing to challenge the tax credit and property tax exemption. The Court recognized that:

> We have been asked to decide an important question of constitutional law concerning the Commerce Clause. But before we do so, we must find that the question is presented in a 'case' or 'controversy' that is, in James Madison's words, 'of a Judiciary Nature.' That requires plaintiffs, as the parties now asserting federal jurisdiction, to carry the burden of establishing their standing under Article III.

Id. at 1861. The plaintiffs in this case failed to meet the burden, which does not preclude different classes of plaintiffs from eventually getting the issue before the Court for a decision on the merits.

66. *Id.* at 1868.

67. Press Release, U.S. Rep. Patrick J. Tiberi, Voinovich, Tiber [sic], Stabenow, and Chandler Propose Bill to Protect Key Economic Development Tools (May 19, 2005), available at http://tiberi.house.gov/News/DocumentPrint .aspx?DocumentID=32632.

68. Economic Development Act of 2005, S. 1066, 109th Cong. § 2 (2005). Interestingly, the bill excepts certain tax incentives from its otherwise broad authorization for states to create local EDI. The exception covers, which means the law would not authorize, any state tax incentive which:

> (1) is dependent upon State or country of incorporation, commercial domicile, or residence of an individual;
> (2) requires the recipient of the tax incentive to acquire, lease, license, use, or provide services to property produced, manufactured, generated, assembled, developed, fabricated, or created in the State;
> (3) is reduced or eliminated as a direct result of an increase in out-of-State activity by the recipient of the tax incentive;
> (4) is reduced or eliminated as a result of an increase in out-of-State

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The bill is cosponsored by Senate Majority Leader William Frist of Tennessee, North Carolina Senator Richard Burr, and more than a dozen other senators. A companion bill[69] has also been introduced in the U.S. House of Representatives and is sponsored by Ohio Congressman Patrick Tiberi. Every member of North Carolina's congressional delegation, save one, has signed on as a cosponsor, which is not surprising in light of the EDI package that North Carolina gave Dell.[70]

Interestingly, however, other people want Congress to intervene, not to endorse local EDI, but to discourage them. Indeed, during the state legislative debate over the Dell package, the North Carolina House of Representatives passed a resolution asking Congress to act under the Commerce Clause to outlaw local EDI.[71]

No matter which side Congress takes in regulating local EDI, a central issue is the extent to which the Commerce Clause empowers Congress to do anything with respect to local EDI. The core question is the extent to which local EDI are matters of interstate commerce within the meaning of the Commerce Clause and therefore within the scope of congressional power thereunder.

B. *The Power Of Congress To Regulate Local EDI Under The Commerce Clause*

The breadth of Congress's power under the Commerce Clause to "regulate commerce . . . among the several states"[72] depends on how broadly the Supreme Court defines this power. Beginning very

> activity by a person other than the recipient of the tax incentive or as a result of such other person not having a taxable presence in the State;
> (5) results in loss of a compensating tax system, because the tax on interstate commerce exceeds the tax on intrastate commerce;
> (6) requires that other taxing jurisdictions offer reciprocal tax benefits; or
> (7) requires that a tax incentive earned with respect to one tax can only be used to reduce a tax burden for or provide a tax benefit against any other tax that is not imposed on apportioned interstate activities.

S. 1066, § 3(a). The bill tries, however, to ensure that this exception is not interpreted as otherwise affecting, for purposes of the Commerce Clause (presumably including the Dormant Commerce Clause), any state tax incentive that fits the exception: "Nothing in this section shall be construed to create any inference with respect to the validity or invalidity under the Commerce Clause of the United States Constitution of any tax incentive described in this section." *Id.* § 3(b).

69. Economic Development Act of 2005, H.R. 2471, 109th Cong. (2005).
70. Speizer, *supra* note 4, at 51.
71. H.R. 1734, Amend. 4, 2002 Extra Session (N.C. 2002).
72. U.S. CONST. art. I, § 8, cl. 3.

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early on, as in *Gibbons v. Ogden*,[73] the Court decided that the Commerce Clause essentially refers to the power to "prescribe the rule by which commerce is to be governed."[74] In *prescribing* such rules, the Court said in *Gibbons* that congressional power is not limited by the "boundary line of each State."[75] The constitutional words "commerce . . . among the several States" mean commerce as "[a] thing which is among others, is intermingled with them."[76] So, commerce "may be introduced into the interior,"[77] which means that Congress' commerce power can extend even to a business that is completely, physically local if the business nevertheless affects commerce in constitutional terms.

Gibbons thus set the stage for an expansive view of the Commerce Clause, and, until very recently, the Court fairly routinely and fairly generously approved federal laws enacted under the Commerce Clause regulating a seemingly ever-widening range of conduct.[78] Small, indirect connections between the regulated conduct and interstate commerce were sufficient to pass constitutional muster.[79] For almost sixty years, until the 1995 decision in *United States v. Lopez*,[80] the Court did not declare that any federal law violated the Commerce Clause.

The *Lopez* decision in 1995 and *United States v. Morrison*,[81] which was decided in 2000, may have stopped the trend of expanding (seemingly without end) congressional commerce power. These cases are sometimes seen as part of the so-called "new federalism."[82] Basically, and in very simple terms, new federalism refers to the federal government—through all three branches—deferring increasingly to the states when deciding if the states or the federal government should regulate certain conduct or control certain programs and spending.

In *Lopez*, the Court decided that the Commerce Clause did not empower Congress to federally criminalize carrying handguns near a school.[83] In *Morrison*, the Court struck down a federal civil

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73. 22. U.S. (9 Wheat.) 1 (1824).
74. *Id.* at 196.
75. *Id.* at 194.
76. *Id.*
77. *Id.*
78. *See* Richard A. Epstein, *The Proper Scope of the Commerce Power*, 73 VA. L. REV. 1387 (1987).
79. *Id.*
80. 514 U.S. 549 (1995); *see* Arthur B. Mark III, *Currents in Commerce Clause Scholarship Since* Lopez*: A Survey*, 32 CAP. U. L. REV. 671, 684 (2004).
81. 529 U.S. 598 (2000).
82. George D. Brown, *Counterrevolution? National Criminal Law After* Raich, 66 OHIO ST. L.J. 947, 948-49 (2005).
83. *Lopez*, 514 U.S. at 551.

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remedy for victims of gender-based violence.[84] In *Lopez*, the Court recognized that even though "modern-era precedents . . . have expanded congressional power under the Commerce Clause,"[85] "this power is subject to outer limits."[86] In both *Lopez* and *Morrison*, the Court concluded that the connection between the conduct and interstate commerce was too weak—too *attenuated*—to support Congress enacting the challenged laws on the basis of the Commerce Clause.[87]

In so doing, the Court did not change a long-standing, singularly sufficient basis for Congress acting under the Commerce Clause: the regulated activity has a substantial relation to or substantial affect on interstate commerce. It seems, however, that the Court in *Lopez* and *Morrison* tightened the meaning of "substantial," thereby reducing Congress' commerce power and increasing the power of the states relative to the federal government.

In a case decided last year, *Gonzales v. Raich*,[88] the Court upheld Congress' commerce power in affirming a person's criminal liability under federal law for using marijuana for medical purposes even though state law allowed the conduct.[89] Whether this case muffles any "new federalism" of *Lopez* and *Morrison* is highly debatable because *Gonzales* is easily distinguished.[90] In any event, the issue of the effect of *Gonzales* is probably, largely mooted by recent changes in the Court's membership which, on the political surface, seems likely to add support for a "new federalism" approach in deciding Congress' commerce power.

Nevertheless, even this approach would seem—more likely than not—to lead to the conclusion that local EDI are sufficiently related to interstate commerce as to allow Congress to regulate them under the Commerce Clause. The reasons that doomed the laws in *Lopez* and *Morrison* can fairly be collapsed to two: First, the regulated activities did not substantially affect commerce because the activities directly had "nothing to do with commerce or any sort of

84. *Morrison*, 529 U.S. at 627.
85. *Lopez*, 514 U.S. at 556.
86. *Id.* at 557.
87. *Id.* at 567; *Morrison*, 529 U.S. at 615.
88. 125 S. Ct. 2195 (2005).
89. *Id.* at 2215.
90. For an interesting discussion of the economic issues in *Gonzales* as they relate to the *Lopez* and related decisions, see Maxwell L. Stearns, *Crops, Guns & Commerce: A Game Theoretical Critique of* Gonzales v. Raich (George Mason Sch. of L. Working Paper Series, Paper No. 37, 2005), *available at* http://law.bepress.com/gmulwps/gmule/art37.

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economic activity, however broadly one might define those terms";[91] and making a connection to interstate commerce required layering or "aggregating"[92] non-economic conduct to such an extent that the connection was not proximate or, using the Court's word, too "attenuated."[93] Second, the laws were not supported by congressional findings to support the necessary connection.[94]

Congress can, and surely will, avoid the latter problem: in enacting laws to regulate local EDI, the accompanying congressional hearings and reports will inevitably find and declare a close connection between EDI and interstate commerce. Yet, such self-serving, congressional findings in support of Congress exercising its commerce power will not alone solve the former, substantive problem.[95]

This substantive problem—which involves the Court concluding, based on its own case law, that local EDI substantially affect interstate commerce—is far easier to solve compared to the insurmountable problem the federal government faced in the *Lopez* and *Morrison* cases. EDI have everything to do with commerce and economic activity however narrowly one might define those terms. Viewing the national economy holistically and as a unit, the effects of local EDI are so central to interstate commerce that the problem is not attenuating the connection, but rather, in terms of commerce and economic activity, finding any meaningful gap between them that requires a connection.

On the other hand, local EDI are products of the essential instruments and powers of the states: taxes and spending that are proximately closer to the public in whom the Constitution vests net residual political power.[96] Even if true, this argument should not matter in applying the Commerce Clause because the Court has never given weight to the means by which the states act unconstitutionally.

Also, the Court in *Morrison* seems to cite with approval the cases of *Wickard v. Filburn*[97] and *Katzenbach v. McClung*.[98] In *Katzenbach*, the Court held that "$70,000 worth of food which has

91. *Lopez*, 514 U.S. at 561.
92. *Morrison*, 529 U.S. at 613.
93. *Id.* at 612.
94. *Lopez,* 514 U.S. at 563; *Morrison*, 529 U.S. at 615.
95. *See Lopez,* 514 U.S. at 557 n.2 (citing Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241, 273 (Black, J., concurring)).
96. "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." U.S. CONST. amend. X.
97. 317 U.S. 111 (1942).
98. 379 U.S. 294 (1964).

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moved in commerce" was sufficient to allow Congress to regulate a local restaurant's business absent any "claim that interstate travelers frequented the restaurant."[99] In comparison, the EDI used in North Carolina to lure Dell totaled over $242 million[100] and sought to bring in over 2,000 new jobs to serve the east coast of the United States.[101]

In *Wickard*, the Court upheld a federal law penalizing a farmer who grew twelve acres of wheat for his own consumption.[102] Under the Agricultural Adjustment Act of 1938, Congress strove to increase the market price of wheat by reducing the market supply of wheat relative to its demand.[103] To guarantee cooperation with the program, penalties for "farm marketing," or violating a wheat production quota, were imposed.[104] This farmer challenged his penalty in court.[105] The Supreme Court ruled against him, even though the wheat constituted a negligible impact on the national market by itself.[106] If "substantial effect" on commerce considers the size of the economic impact of the activities, and if the Court continues truly to approve of the holdings in *Wickard* and *Katzenbach*, then these cases support allowing Congress to regulate local EDI, which have exponentially greater effects on interstate commerce in terms of dollar value than the activities in *Wickard* and *Katzenbach*.

Nevertheless, if the Court has truly adopted a "new federalism" approach to the Commerce Clause and embraces this approach even more tightly, the effect may be to further narrow the commerce power. The much-respected Professor Randy Barnett has published evidence that the "original meaning" of the various pieces of the Commerce Clause is a rather narrow meaning.[107] Earlier, Justice Thomas had done his own research on the "original meaning" and suggested, in his concurrence in *Lopez*, that this narrow meaning compels the Court to "reconsider our 'substantial effects' test with an eye toward constructing a standard that reflects the text and history of the Commerce Clause without totally rejecting our more

99. *Id*. at 298, 304.
100. Speizer, *supra* note 4, at 51.
101. *Id.* at 49, 52.
102. *Wickard*, 317 U.S. at 114.
103. *Id.* at 115.
104. *Id.* at 117.
105. *Id.* at 113.
106. *Id.* at 127-28.
107. Randy E. Barnett, *The Original Meaning of the Commerce Clause*, 68 U. CHI. L. REV. 101, 112 (2001); *see also* Randy E. Barnett, *New Evidence of the Original Meaning of the Commerce Clause*, 55 ARK. L. REV. 847, 850 (2003) (discussing lack of evidence on the original meaning of "commerce").

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recent Commerce Clause jurisprudence."[108] Conceivably, depending on how narrow "narrow meaning" is, the substantial effects of EDI on interstate commerce may not be sufficient to empower Congress to regulate them, though this outcome seems unlikely.

In any event, whatever meaning the Court gives the Commerce Clause, so long as the effect of the activity on interstate commerce remains a factor to consider, then economic analysis that defines and measures the effect is very useful, especially in deciding the true effects of local EDI on interstate commerce. Moreover, to whatever extent Congress has the power to regulate local EDI, such analysis is equally useful to inform Congress in answering the political questions of whether or not it should regulate local EDI and how.

III. Economic Analysis of Local EDI and Legal Regulation

For the purposes of this Article, we presume that Congressional regulation of interstate commerce and, derivatively, state regulation of local commerce, is constitutional, and ask how economic analysis of the impact of EDI might help to inform and improve the all-important relationship between government and business. Economic analysis is a linchpin for the legislature and is certainly the driver of the Economic Development Act of 2005.

A. *The Role Of Economic Analysis in the States*

EDI offered by each state include a variation of nearly every possible tax incentive, including:

- Corporate income tax exemption
- Personal income tax
- Excise tax
- Land and capital improvements
- Equipment and machinery tax
- Goods in transit tax
- Manufacturers' inventories tax
- Sales and/or use tax
- Job creation tax incentive
- R&D tax
- Accelerated depreciation

What justifications have states and counties given for the use of tax incentives? A partial list of reasons includes the desire to:

108. United States v. Lopez, 514 U.S. 549, 585 (1995) (Thomas, J., concurring).

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- Protect the state from losing business to other states
- Rescue failing firms
- Attract outside firms
- Start up new businesses
- Shield the business from competition

Have states and counties evaluated their tax incentive programs to see if they have, in fact, generated the anticipated or promised jobs and revenues? The National Association of State Development Agencies and the Council of State Governments have found that only a handful of states performed cursory cost-benefit analyses of their EDI programs, but most states cannot even report the exact amount they have spent on EDI during any given period.[109] While billions of dollars have been spent on EDI across the country in the last ten to fifteen years, states prefer not to evaluate tax incentive programs. When asked, most state managers claim that they would rather spend the funds on the actual development programs than to fund studies on those programs.

We have found that competition between states and counties for EDI has become business as usual; as long as EDI are legal, and as long as states and municipalities compete for a limited number of new and expanding businesses, it is in the local and state politicians' interests to bid for the businesses if only to stay in the economic development game. Or, perhaps more importantly, state officials need to offer EDI to create the appearance of being economically progressive in order to retain their political positions. And, it seems local businesses are complicit in this game. Todd Gabe and David Kraybill[110] have found that incentives, while they may or may not increase *actual* growth, have a substantial positive effect on *claimed* growth. Specifically, establishments that received incentives overestimated their announced employment targets more than establishments that did not receive incentives.[111]

B. Existing Literature on the Impact of EDI

There are two major branches of the literature on the impact of EDI. One branch examines the correlation between taxes (and other non-tax factors) and growth, and the other looks at the correlation

109. Terry F. Buss, *The Effect of State Tax Incentives on Economic Growth and Firm Location Decisions: An Overview of the Literature*, 15 ECON. DEV. Q., 90, 105 (2001).

110. Todd M. Gabe & David S. Kraybill, *The Effect of State Economic Development Incentives on Employment Growth of Establishments*, 42 J. REGIONAL SCI. 703 (2002).

111. *Id.* at 723.

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between taxes (and non-tax factors) and the firm-location decision.

Growth is typically measured in terms of jobs, income, business capital investments, and state gross domestic product.

Interstate studies on the impact of EDI on growth show marginally positive results, but the results are so inconsistent, even when using similar methods and data, that the results are basically useless to policymakers. The reason may be that most states faced with competition may have reduced taxes to bring their states in line with their neighboring states, essentially taking taxes out of the picture as an explanatory variable.[112] Interstate and other aggregate level studies are also subject to significant econometric issues associated with missing variables and "endogeneity" issues (factors that drive the observed results that also drive the decision to adopt the EDI).

Intraregional studies may be less susceptible to the endogeneity issue. In smaller geographical areas, factors of production (e.g., labor costs, services, transportation, and markets) are likely to be more similar, so differences in tax levels across communities are more likely to drive the business decision.[113] The findings of these studies are mixed. Some find a positive relation between growth and generic state-level economic development incentive packages.[114] Others find positive growth only when certain limited EDI, such as enterprise zones and university research parks, are used, and no relation between growth and other types of targeted EDI, including tax rates and industrial revenue bonds.[115] The results vary tremendously by city.

If a pattern emerges from these studies at all, it may be that the tax increases seem to have a statistically significant negative impact on economic growth of a region at the extremes—very high taxes or very low taxes. And that hints of an econometric, not a real economic, artifact. More is said on this topic below.

Both interstate and intraregional non-tax factor studies (including the provision of public services like education, transportation, and public safety) find that the adoption of EDI has a negative impact on growth.

The other major line of inquiry in the literature on the impact of EDI is location-decision studies: are businesses more likely to locate in a region because of its EDI, particularly low tax rates, holding

112. Buss, *supra* note 109, at 96.
113. *Id*.
114. Charles A.M. de Bartolome & Mark M. Spiegel, *Does State Economic Development Spending Increase Manufacturing Employment?* 41 J. URB. ECON. 153, 166 (1997).
115. Gabe & Kraybill, note 110, at 704.

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other variables of interest (local labor costs, distance to market, municipality size, and industry concentration) constant?

Before 1980, it was generally believed that taxes had little effect on business location decisions.[116] Since then, most have found a negative relation between taxes and growth. For example, Timothy Bartik[117] used the results from forty-eight studies published between 1979 and 1991 to estimate that a 10% increase in taxes is correlated with a 2.5% decrease in business activity. This negative relationship is more pronounced in intraregional studies than in interstate, and in studies that include variables to control for state and local public services. These findings suggest that firms and policymakers consider tax policy as well as the benefits from public goods and services as determinants of business location.[118]

In a survey of studies that focus on the effects of government spending on economic activity, Ronald Fisher reports that education spending has a positive effect on business activity in twelve of nineteen reviewed studies, but only six revealed a statistically significant relation.[119] Spending on public safety has a positive effect on business activity in only five of nine studies, and spending on transportation and highways showed positive effects in ten of fifteen studies reviewed, eight of which were significant.[120] Others have studied the same issues and found conflicting results.[121] For Fisher, the most that can be concluded is that "*some* public services clearly have a positive effect on *some* measures of economic development in *some* cases."[122]

Most of these studies focused on state-level spending. A recent study by Todd Gabe and Kathleen Bell examines the tradeoff between taxes and government spending on public services and its

116. Dennis Carlton, *The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables*, 65 REV. ECON. & STAT. 440 (1983).

117. Timothy J. Bartik, *The Effects of State and Local Taxes on Economic Development: A Review of Recent Research,* 6 ECON. DEV. Q. 102 (1992).

118. Michael Wasylenko, *Taxation and Economic Development: The State of the Economic Literature*, NEW ENG. ECON. REV., Mar.-Apr. 1997, at 37.

119. Ronald Fisher, *The Effects of State and Local Public Services on Economic Development*, NEW ENG. ECON. REV., Mar.-Apr. 1997, at 53.

120. *Id*. at 53-54, 56-57.

121. *See, e.g.*, Thomas F. Luce, Jr., *Local Taxes, Public Services, and the Intrametropolitan Location of Firms and Households,* 22 PUB. FIN. Q. 139, 156 (1994); *see also* Douglas Dalenberg & Mark Partridge, *The Effects of Taxes, Expenditures and Public Infrastructure on Metropolitan Area Employment*, 35 J. REGIONAL SCI., 617, 635 (1995) (arguing that highway expenditures do not increase local employment).

122. Fisher, *supra* note 119, at 54 (emphasis in original).

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impact on the business location decision at the local level.[123] They focus on the effects of a decrease in several types of local government spending with an offsetting decrease in local taxes on the number of businesses that locate in a municipality,[124] and find that a high-tax, high-spend fiscal policy may lead to more business investments than a low-tax, low-spend strategy. This and other studies[125] suggest that there is some evidence that the benefits of public services may be even more important than the costs as a determinant of business location.[126]

This location-decision research, particularly in the economics of taxation literature, tends to rely more on rankings and other non-parametric measures because of the qualitative nature of the business decision to locate. There is much disagreement in the literature about what constitutes a positive business climate and how much weight each factor should receive in the ranking. For example, are the cost and quality of resources most important to the business location decision, or do state and local policies dominate? Does the interaction between the quality of resources and local fiscal policies neutralize any measured effects on location? Finally, what about the quality of life, including the area's infrastructure, schools, the arts, recreation, and safety?

There is no scientific basis for computing state scores, so results vary widely from study to study and no consensus develops.[127] Also, in an apparent attempt to incorporate some hard numbers in the analysis, business climate studies tend to weight state and local taxes heavily in computing state rankings to recruit business. This might explain why the GAO, in its extensive review of this literature, found that taxes explained essentially none of the variation in the location decision when compared to other factors.[128]

A sampling of studies that have focused on individual tax incentive plans[129] includes one conducted in Washington State in 1996 that found little correlation between the amount of tax benefit

123. Todd M. Gabe & Kathleen P. Bell, *Tradeoffs Between Local Taxes and Government Spending as Determinants of Business Location*, 44 J. REGIONAL SCI. 21 (2004).

124. *Id.* at 22.

125. *See* WALLACE OATES, FISCAL FEDERALISM (Harcourt Brace Jovanovich ed., 1972); L. Jay Helms, *The Effect of State and Local Taxes on Economic Growth: A Time Series-Cross Section Approach*, 67 REV. ECON. & STAT. 574, 574-75 (1985); Alaeddin Mofidi & Joe K. Stone, *Do State and Local Taxes Affect Economic Growth?*, 72 REV. ECON. & STAT. 686 (1990).

126. Gabe & Bell, *supra* note 123, at 37.

127. Buss, *supra* note 109, at 98.

128. U.S. GEN. ACCOUNTING OFFICE, ENTERPRISE ZONES: LESSONS FROM THE MARYLAND EXPERIENCE (1988).

129. Buss, *supra* note 109, at 99-100.

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received and growth in employment which resulted.[130] Studies on the impact of industrial revenue bonds offer no firm conclusions,[131] and those on targeted job tax credits find mixed results.[132] One of the few analyses of a full-service program, the Industrial Development Authority ("IDA"), found that while $1.3 billion in taxes were foregone due to IDA bonds, the measured benefits were sparse.[133] Most new businesses failed, and 83% failed to meet job projections.[134] A full 30% lost jobs.[135] Overall, the program cost $39,000 in lost tax revenue for each job retained or created.[136] The final blow was the finding that the richest counties got the most EDI, a finding echoed in North Carolina and likely many other jurisdictions as well.

Overall, the analytical approaches are so disparate that the findings offer little or no guidance to policymakers. In addition, these studies are subject to the usual empirical criticisms: the results may be driven by the quality and availability of data sources, the specific time period studied, omitted variables, sample selection bias, and measurement issues. By far, however, the most important issue is a flawed research design.

IV. A NEW RESEARCH DESIGN FOR ANALYZING EDI

We posit that the correct research design will enable us to rigorously answer the question: is the county better off with the particular incentive package than without it? We defer for a

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130. Washington State Department of Revenue: Research Division, *Economic Vitality*, at 10 (March 2, 2002) *available at* http://dor.wa.gov/content/statistics/wataxstudy/tax%20study%20economic%20vitality.pdf ("[Tax incentive] studies were unable to find a causal relationship between job growth and the tax incentives.").

131. For a review of the literature on the impact of industrial revenue bonds, see Peter S. Fisher and Alan H. Peters, *Tax and Spending Incentives and Enterprise Zones*, NEW ENG. ECON. REV., Mar./Apr. 1997, at 109-30.

132. For a review of the literature on the impact of targeted job tax credits, see Linda Levine, *The Targeted Job Tax Credits, 1978-1994*, Congressional Research Service, at 21 (Sep. 1995) ("The TJTC [Targeted Job Tax Credit] cannot be considered a success in light of most studies' findings. The program helped relatively few members of its eligible population get jobs. Moreover, TJTC-eligibles typically were employed in subsidized jobs of short duration, which could not have afforded them much chance to acquire the skills and experience that might qualify them for unsubsidized jobs.") (quotation *available at* http://www.house.gov/jec/fiscal/tx-grwth/wel-work/welwork.pdf, at 5).

133. *See generally* Robert G. Lynch et al., *The Effectiveness of Firm-Specific State Tax Incentives in Promoting Economic Development: Evidence from New York State's Industrial Development Agencies*, 10 ECON. DEV. Q. 57 (1996).

134. *Id.*

135. *Id.*

136. *Id.*

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moment the issue of how one might correctly measure "better off," and note instead that the appropriate metric could address this question from all perspectives, including national, state, and local. Viewed from the national level, for example, if the net benefits to State A outweigh those to State B, or if State A is competing with a non-U.S. entity, then clearly the country is better off if state A proceeds with the EDI. Likewise, if the net benefits to county A exceed those to competing county or non-national entity B, then the state government should allow county A to proceed with the initiative. And, armed with this metric, valuable interstate and intrastate competition should be encouraged at the federal level, whether by the courts or Congress.

A. *What Is the Economic Impact of EDI on Local Performance?*

The answer to this question depends critically on the construction of a benchmark that measures how the state or county would have performed over the long-term *had they not adopted the EDI*. This Article develops a method for constructing a performance benchmark that essentially permits us to re-run history as if the EDI had not been adopted, and uses it to explore the impact of EDI on state or local performance.[137]

B. *Theoretical Framework*

The observed performance of the state is a function of many factors, some induced by the adoption of the EDI themselves and

137. For an examination of how this method was developed, see Sherry Jarrell, Do Mergers Generate Value? Non-Stock Price Evidence on the Capital Market's Ability to Assess Takeovers (1991) (unpublished Ph.D. dissertation, University of Chicago) (on file with authors), and applied in "The Postmerger Performance of Corporate Takeovers," solicited by and under revision for the *Review of Financial Studies*. The method was found to be superior to other common benchmarks used in the corporate finance literature and published in several sources. *See, e.g.*, Scott B. Smart & Joel Waldfogel, *Measuring the Effect of Restructuring on Corporate Performance: The Case of Management Buyouts*, 76 REV. ECON. & STAT. 503, 503-11 (1994). In addition, the method has been published. *See* Sherry L. Jarrell & George S. Easton, *The Emerging Academic Research on the Link Between Total Quality Management and Corporate Financial Performance: A Critical Review, in* PERSPECTIVES IN TOTAL QUALITY 27 (Michael Stahl ed., 1999); Sherry L. Jarrell & George S. Easton, *An Exploratory Empirical Investigation of the Effects of Total Quality Management on Corporate Performance*, *in* THE PRACTICE OF QUALITY MANAGEMENT 9 (Phillip J. Lederer and Uday S. Karmarkar eds., 1997); Sherry L. Jarrell & George S. Easton, *The Effects of Total Quality Management on Corporate Performance: An Empirical Investigation*, 71 J. BUS. 253 (1998), *reprinted in* THE AMERICAN WORKPLACE: SKILLS, PAY, AND EMPLOYEE INVOLVEMENT 172 (Casey Ichniowski, et al. eds., 2000), and THE QUALITY MOVEMENT AND ORGANIZATION THEORY 237 (Robert E. Cole & W. Richard Scott eds., 2000).

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others independent of the EDI. In order to isolate the impact of the adoption of the EDI on economic performance, the influence of non-EDI events must be removed. One popular approach to this problem has been to compare the performance of the state or county with that of similar states or counties without the EDI during some post-event window. This approach would generate a perfect measure of the impact of the EDI on performance if it were possible to identify states or counties that were identical to the adopting state or county in every way except the decision to adopt.

Unfortunately, perfect matches are not available. And the use of *imperfect* matches leads to two significant problems. First, imperfect matches create errors in the measured impact of the EDI adoption on performance. Second, these errors do not fall out as we sum across counties because they are likely to be non-random due to the "endogeneity" of the decision to adopt.

Endogeneity of the decision to adopt arises when the exogenous factors that drive future performance also influence the decision to adopt. In such cases, selecting counties to study on the basis of their decision to adopt has the potential to sort counties into event and control portfolios on the basis of future expected performance. The following example should clarify this obscure but important point.

Suppose that counties with exogenous factors that drive weak future performance (e.g., labor skills obsolescence) are more likely to seek firm relocation or retention with EDI, and those with factors that drive strong future performance are less likely to do so. In selecting a sample of counties to study, one inadvertently selects those with weak post-EDI performance. Likewise, the sample of matched non-EDI control counties is likely to exhibit systematically stronger post-EDI performance. It would appear, using this fairly standard sampling approach, that the adoption of EDI destroys long-term value, particularly when compared with the non-EDI control counties or states. Yet, in this example, the observed patterns in post-event performance are due not to the EDI adoption but to the exogenous factors that also happen to be correlated with the decision to adopt.

Put somewhat differently, the observed difference between the performance of the event and control counties would have materialized in the post-event period even if the EDI had not been adopted. The empirical challenge, made particularly difficult by the fact that the county has already adopted the EDI and does not now exist as a "non-EDI county," is to develop a measure of non-EDI, or "benchmark," performance that captures what the performance of the county would have been in the post-event period without the EDI, while avoiding the problems associated with the endogeneity of

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the decision to adopt.

C. Typical Approaches to Measuring Benchmark Performance

The benchmark performance of the county is typically modeled as either the pre-EDI performance of the county, the concurrent post-EDI performance of a similar county,[138] or some combination of the two approaches referred to as a "structural model."[139] The pre-EDI performance benchmark fails to control for intervening political and economic developments, and introduces potentially significant measurement error. The post-EDI matched county benchmark is based on the assumption that had the county that adopted the EDI instead not adopted the EDI, it would have performed as the typical county over that period.

There are many reasons to believe, however, that counties that choose to pursue EDI are unlike counties that do not. More importantly, the same factors that make a county likely to adopt, *even if it does not adopt*, will render its post-EDI performance unlike that of the matched areas. The post-EDI matched benchmark thus erroneously attributes to the event differences in performance that result not from the adoption, but from factors unique to the adopting county or state, the so-called "endogeneity problem."

A numerical illustration of the endogeneity problem may be useful. Assume, for example, that the increase in performance is 3, regardless of whether the EDI are adopted or not. In the structural model approach that combines the pre-EDI benchmark with the post-EDI matched county benchmark, for example, the average impact of EDI adoption, α, is defined as:

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138. *See, e.g.*, Dagney Faulk, *Do State Economic Development Incentives Create Jobs? An Analysis of State Employment Tax Credit,* 55 NAT'L TAX J. 263, 263-80 (2002) (comparing the employment change in eligible firms that participate in employment tax credit programs with eligible firms that do not participate in such programs). Faulk found that Georgia's Jobs Tax Credit program created 23% to 28% more jobs than eligible firms not taking the credit between 1993 and 1995. The cost per job is $2280 to $2678, which the author considers low compared to firm-specific incentive packages. *Id.* at 263.

139. *See* Kelly Edmiston, *The Net Effects of Large Plant Locations and Expansions on County Employment*, 44 J. REGIONAL SCI. 289 (2004) (using a simultaneous equations model to measure the effects of both large firm locations and expansions on population and employment). The model attempts to capture the interdependence between a firm's location and expansion decision, and the broader set of all firm start-up, relocation, expansion, and contraction decisions in an area. She finds that the net impact of firm location on county employment is minimal, but the impact of plant expansion is sizeable. For an ambitious case study of the effects of five different types of EDI on multiple cities in a single metropolitan area, see generally JOHN ANDERSON & ROBERT WASSMER, BIDDING FOR BUSINESS: THE EFFICACY OF LOCAL ECONOMIC DEVELOPMENT INITIATIVES IN A METROPOLITAN AREA (2000).

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$$(1)\ \alpha = (C_{post} - M_{post}) - \beta\,(C_{pre} - M_{pre})$$

where *C* is the actual EDI-county performance (e.g., quality of life ranking, labor, tax base, revenues, growth), *M* is the actual performance of a matched portfolio of non-EDI counties, *post* is post-adoption, *pre* is pre-adoption, and β is a measure of the excess performance between the adopting and non-adopting counties that persists post-adoption.

Under the null that EDI adoption has no effect, α is zero. Suppose, however, that because of exogenous factors (known to everyone) that influence the endogenous decision to adopt EDI, the true post-event performance of the adopting county is given by:

$$(2)\ C_{post} = M_{post} + 3$$

Substituting (2) into (1), and assuming that the estimate of pre-EDI persistence, β, is zero, the estimate of the average impact of EDI adoption then becomes:

$$(3)\ \alpha = (M_{post} + 3) - M_{post} = 3$$

This approach to the benchmark attributes the improvement in performance to adopting the EDI, even though in this example it is clear that the improvement would have occurred whether the EDI have been adopted or not. The endogeneity problem is inherent to the approach, and is not mitigated by a larger sample.

D. A Better Benchmark: Addressing the Endogeneity Problem

The proposed benchmark of non-EDI performance addresses the above shortcomings by (i) incorporating county-specific forecasts of the post-EDI performance, (ii) using unrestricted models to generate the county-specific forecasts, and (iii) correcting measured post-EDI performance for non-EDI developments by subtracting the performance of a portfolio of non-EDI counties matched on numerous factors hypothesized to influence performance, such as population, unemployment, tax rates, and quality of living indices.

The measure of abnormal performance developed here to study the impact of EDI adoption, XP or "excess performance," takes the general form:

$$(4)\ XP = (C_{post} - FC_{pre}) - (M_{post} - FM_{pre})$$

where *C* is actual EDI-county performance (the particular performance variables are developed in more detail below), *M* is the actual performance of the matched portfolio of non-EDI counties, states, or other entities, *F* is the forecast of post-EDI performance

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made during the pre-event period, and *pre* and *post* are the pre- and post-EDI periods, respectively.

Features (i) and (ii) above are incorporated into the benchmark by using analysts' pre-event forecasts of future performance as the forecast variables F. These forecasts represent the analysts' expert evaluations of the likely impact of the factors unique to the county, including those exogenous factors that may be correlated with the endogenous decision to adopt EDI. The analysts' forecasts may also include the impact of anticipated or known post-EDI developments (e.g., impending tax law changes, new bond issues, labor force developments, transportation or communication infrastructure), factors that are specifically not found in the time series of accounting, financial, or economic data that may be used to build time-series or other structural models of expected future performance.

There is, however, the potential for bias in the analysts' forecasts. The unexpected performance variable alone cannot distinguish between the incentives' true impact and such forecast biases. By comparing the unexpected performance of the county to the unexpected performance of a matched control portfolio of similar counties, we mitigate the measurement problems resulting from forecast biases or varying forecast quality, which satisfies criterion (iii) above.

Note that in the proposed method in equation (4) above, the use of analysts' forecasts or a time-series model of forecast future performance adjusts for the endogeneity issue. As before, assume that $C_{post} = M_{post} + 3$ due to exogenous factors known by everyone that also drive the endogenous decision to adopt. Analysts' pre-event or time-series forecasts of post-event performance incorporate this knowledge. Thus, the forecast for the adopting county is:

$$(5)\ FC_{pre} = FM_{pre} + 3$$

Substituting (5) and (2) into (4), the model of expected post-event performance becomes:

$$XP = [(M_{post} + 3) - (FM_{pre} + 3)] - (M_{post} - FM_{pre}), \text{ or}$$

$$XP = 0$$

i.e., the measured effect of the EDI adoption is zero, which is correct. Other benchmark methods found in the literature—the pre-event, post-event localities, and other versions of the structural benchmark—are equally susceptible to these endogeneity issues.

The control portfolio may consist of several non-EDI counties or states matched to each EDI county or state on the basis of the

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calendar period of EDI adoption, major industries, projected relative performance, size, and risk. Matching on the basis of major industries and calendar period is designed to capture the impact of various economic and regulatory influences common to both adopting and non-adopting counties.

Matching on the basis of projected relative performance is designed to help minimize the effects of differences in the methods generating the projections for the adopting and non-adopting counties. The projected relative performance of the county can be estimated with surveys on the overall desirability of various locales as places to live. Numerous publications rank cities, counties, states, and geographic areas based on their cost of living, schools, recreational opportunities, services, transportation, the environment, and so on.[140] These surveys can be re-weighted into a rank that is scaled, perhaps from one to five, with one being the highest.

The non-EDI counties used in the matched control portfolios are those with a rank within one digit of the rank of the EDI county during the pre-event period. It is hoped that, to the extent analysts use the data underlying the rank in their projections, including this variable in the matching process will help to capture the influence of apparent trends in performance on the projections, and thus result in the selection of matched counties that more closely resemble the adopting counties over the longer term.

For each EDI county, the set of candidate control counties selected on the basis of major industries, calendar time, and projected relative performance is narrowed to a subset of counties, first by choosing those whose size is closest, then by choosing those whose risk and indebtedness are closest to that of the adopting county. Existing empirical evidence has shown that the measured performance may be influenced by the sheer size of the locality, perhaps because of the impact of the differences in scale or because bigger localities are associated with more advanced and sophisticated reporting techniques.

The non-EDI counties are then matched to the EDI county on the basis of their risk to minimize differences in measured performance due to difference in risk. Risk is driven by a

140. *See, e.g.*, Tara Kalwarski, Donna Rosat & Cybele Weisser, *Best Places to Live 2005*, MONEY MAGAZINE, Aug. 2005, at 78; Bert Sperling & Peter Sander, *Cities Ranked & Rated*, WILEY (2004); Emily Barker, *Hot Zones*, INC. MAGAZINE, Dec. 1999, at 67. *See generally* WILLIAM SCHWEKE ET AL., BIDDING FOR BUSINESS (1994); GRANT THORNTON INTERNATIONAL, THE ANNUAL STUDY OF GENERAL MANUFACTURING CLIMATES OF THE FORTY-EIGHT CONTIGUOUS STATES OF AMERICA (8th ed. 1987).

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municipality's level of indebtedness and variability in revenue collection over the past several periods. Borrowing from the finance literature, we posit that risk-adjusted measures of performance are more meaningful indicators of the impact of EDI, as a given improvement in performance is more desirable the less risk or uncertainty there is.

The particular performance variable used depends entirely on the desired goals of the particular EDI program. As noted earlier, most EDI programs are designed to improve employment statistics, but not at the cost of lower-paying jobs, so perhaps a better performance measure would relate the two, and strive to improve the number of workers earning higher wages, for example. Other performance variables of interest include growth in county-wide gross domestic product, capacity utilization of manufacturing or service facilities, the tax base, and, finally, indices on the overall quality of life or real standard of living.

Lastly, a correct measure of the economic impact will include changes in performance over the long term. We propose cumulating the annual excess performance over a period of at least five years after the EDI program is implemented to better capture the true economic impact of the incentives program on the local community. Such a longer-term analysis may also help to guide and perhaps otherwise discipline the political process behind the design, adoption, and implementation of the EDI program. It is well-known that the economic lifespan of a business affected by EDI is significantly longer than the political lifespan of those empowered to bring those EDI into the community. By the time the promised jobs fail to materialize, for example, the local politicians have moved on.

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V. CONCLUSION

The states are waging war against each other to lure and keep business. Their main weapons are local EDI. The extent to which these EDI are even constitutional under the Dormant Commerce Clause is unclear, especially in the absence of congressional action with respect to EDI under Congress' commerce power. The answer depends on issues such as whether or not local EDI burden interstate commerce, how they affect microeconomic efficiencies, and whether or not they are discriminatory. The issue of Congress' power to act with respect to EDI under the Commerce Clause is much more certain but not perfectly so. The answer depends, to a large extent, on how tightly the Court embraces a "new federalism" approach to interpreting the Commerce Clause, especially the issues of defining "commerce" and the extent to which congressionally regulated activities must affect "commerce" to fit within Congress' power to regulate them.

All of these legal issues are prime fodder for economic analysis. The reason for engaging in the analysis is not so that economists' insights can or will answer the legal questions, which turn on matters beyond and sometimes opposing economics. An economic approach to the questions, however, is helpful in seeing and measuring causes and effects and better informing the holistic decision, especially when the nature of the concerns are themselves economic. Moreover, beyond the legal questions for the courts are the political decisions for federal and local executives and legislatures. Putting aside the law, states and localities must decide whether or not to enact EDI in light of their overall costs and benefits. Congress must politically decide whether or not, and how, to address local EDI under the Commerce Clause to whatever extent the Constitution allows. Here, too, is a role for economic analysis for largely the same reasons that such an analysis is useful in deciding the legality of local EDI.

This Article therefore suggests an approach for appropriately measuring the true economic impact of local EDI. The approach enables us to essentially re-run history, to see how the locality would have performed—in terms of job growth or gross domestic product or any number of variables—had the EDI not been adopted. In this way, we can isolate the impact of EDI on the community, omitting biases in the measure from economic and political developments that would have affected the local economy with or without the EDI.