Globalization, regional economic policy and research

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Introduction

While the case for increasing the degree of integration in the world economy is strong (e.g., Sen, 1999; Irwin, 2002; Bhagwati, 2004), it is based on the notion of net benefits.[1] Workers, industries and places absorb trade-related gains and losses differently and must adjust to greater or lesser degrees to the liberalizing international economic environment. Because of the high degree of industrial specialization and concentration in the space economy, some states and regions' potential losses are greater than their gains, at least in the short- to medium-run. While the losses seem eminently visible—evidenced in bankruptcies, closed factories, and unemployment lines—the benefits are typically diffuse. It still the case that net gains are not a fait accompli, despite a high degree of confidence in the net positives of trade within mainstream economics (Samuelson, 2004). Moreover, core-periphery and cumulative causation theories and findings suggest that there are circumstances in which opening regions to import competition can exacerbate regional income inequalities (Venables, 1998; Fujita and Hu, 2001; Meardon, 2001; Hu, 2002; Mansori, 2003).[2] The differential regional impacts of globalization are therefore important and need to be fully understood, along with the aggregate economic benefits. Also requiring careful thought is what local strategies, if any, are necessary to maximize the benefits of globalization for regional businesses and

[1] Bradford, Grieco and Hufbauer (2005) estimates the income gains to the U.S. economy of 50 years of post-WWII economic liberalization at $2,800 to $5,000 per head in 2003.

[2] Studies showing that a reduction of trade barriers leads to a deconcentration of economic activity—and therefore potential reduction in regional inequalities—include Hanson (1998), Sánchez-Reaza and Rodríguez-Pose (2002), and Pernia and Quising (2003).

workers. In a globalizing world of scarce public sector resources, what is the appropriate subnational economic policy response?

The volume of literature on modern trends in globalization is already enormous. Yet, the question of what globalization means for economic policy making at the subnational scale has received comparatively little systematic attention. Perhaps that is because decisions about desirable levels of economic integration are made at the national level. Yet, regions within nations face most of the practical challenges of adjusting to the new economic order. Note that one needs to distinguish between scholarship that focuses on the regional impacts of globalization and that which concerns appropriate regional-level policy responses. The former literature is extensive, incorporating work on topics such as the influence of globalization on regional inequality (noted above), the impact of free trade agreements on local communities (Glasmeier and Conroy, 1994), the implications of foreign direct investment for regional growth (Glickman and Woodward, 1988; Head, Ries et al., 1995), and the rise of multinationals and their roles in competitive regional clusters (Ivarsson, 1999). Systematic work on regional policy implications, by contrast, is limited and frequently indirect, emphasizing how regional growth is an increasingly a function of international linkages without consideration of whether that implies any significant and necessary *change* in local development policy options or priorities. An open economy is nothing new to regions, after all, and perhaps the current set of policy frameworks and evaluation methods are adequate for regional scale strategic planning and policy making as global economic integration proceeds. If that were the case, planners and policy makers' tasks would be easier. They could concentrate on doing better what they have been doing already rather than changing approaches altogether.

To wit, this paper considers two questions. First, are there any *unique* implications of growing global economic integration for development planning and policy making at the regional level? The focus is on the United States context although some of the more general findings are relevant to other highly industrialized countries with active local and regional economic development institutions. Related issues include whether globalization is appreciably different today than it used to be and whether it means anything more, from the perspective of a given region, than heightened competition for its resident industries and related challenges of more rapid macro-regional structural change and adjustment. Second, what kinds of spatial empirical research and model building would be most valuable to regional policy makers faced with designing programs and making specific allocative investment decisions in the face of growing economic integration? Putting on the shoes of a regional policy maker, what kinds of problems should regional scientists pursue?

Today's globalization

The global economy becomes more integrated with relative increases in the international exchange of goods, services, money, investment, labor, and technol-

ogy. Such exchanges are realized in foreign trade, multinational direct foreign investment, movements of short-term portfolio funds, technology embodied in human and physical capital, and international migration. The real drivers of economic integration, however, are the emergence of new markets, the erosion of old markets, shifts in public policies that reduce barriers to exchange, trends in corporate strategy and industrial organization, the ongoing improvement of transportation and communications infrastructure, and technological change. For city and state officials, the most visible and politically compelling aspect of globalization is the associated labor market impact: job and wage growth and decline in the face of enhanced international competition. Generally, negative labor market outcomes are perceived more keenly than positive ones. Not only are wealth effects harder to trace, but confusion in the economic development community over job creation versus wealth creation is probably as acute as it has ever been (Malizia, 1994).

Determining the appropriate regional policy response to globalization is no easy task. Rarely is there a single cause of any given change in regional labor markets and, even if there were, even rarer are the data necessary to isolate that cause. Feenstra (1998) notes, for example, that the impact of globalization on employment and wages is often observationally equivalent to the effects of other influences, such as technological change or market shifts. A company observed releasing workers locally and establishing a production base in a foreign country in order to rationalize domestic demand contraction and tap foreign demand growth looks very similar to the company relocating elements of its business services functions offshore in response to high local costs. In both cases employment is reduced domestically and expanded overseas. However, the forces behind each move, demand shifts in the first case and a combination of cost cutting and technological change in the second, have very different implications for regional growth and related development policy.

The complexity of cause and effect are exacerbated by the inconsistent use popular media and academic literature of the many terms used to describe globalization trends—offshoring, outsourcing, vertical specialization, and the like—as well as the common practice of extrapolating from isolated but highly visible cases of trade-related job loss. There is probably a natural tendency among public officials to over-estimate their jurisdiction's vulnerability to the negative effects of globalization in the wake of large business closures, much as those who have personally experienced a natural disaster or major accident tend to overestimate the risk of subsequent hazardous events. A single major trade-related plant closure in a locality can do much to derail efforts to think clearly about strategies for maximizing the benefits of global integration. In a typically charged local political environment, what may do most to limit the propagation of bad policy following such events may be the simple fact that there is ultimately little subnational governments can do influence market liberalization trends. Unfortunately, the political incentive to be viewed as "protecting" regional industries and workers com-

bined with general ignorance of globalization dynamics also means that good regional policies may not get adopted either. [3]

A commonly debated question in the mid-1990s was whether the current *level* of economic integration is more extensive than it was immediately prior to World War I. For example, relying on data showing that the ratio of U.S. trade to GDP in the 1980s was roughly what it was at the beginning of the 20th century, Krugman (1996, p. 120) delivered a now well-known caution for analysts of the American situation:[4]

> . . .one should have some historical perspective with which to counter the silly claims that our current situation is completely unprecedented: the United States is not now and may never be as open to trade as the United Kingdom has been since the reign of Queen Victoria.

While the relative volume of goods and services flows addresses only the trade dimension of economic integration, it is often regarded as a barometer of globalization trends more generally. Roughly ten years after Krugman's piece, it is now clear that U.S. goods and services trade today does, in fact, significantly exceed relative levels at any time in the last century (Gresser and West, 2001; Perera-Tallo, 2003). Moreover, U.S. barriers to trade continue to come down. But more significant for the purposes of this paper is what seems to be an emerging consensus that the *nature* of economic integration is substantially different today than in the past, at least from the perspective of the U.S. [5] Table 1 summarizes this consensus by highlighting twelve trends identified in the literature as distinguishing today's globalizing economy. The trends fall into five basic categories. Table 2 clarifies some commonly used terminology.

The first of the five categories captures sectoral shifts in the pattern of trade. They include significant growth of intraindustry trade ("intratrade") and a dramatic increase in the ratio of merchandise trade to merchandise output (Krugman, 1995; Bordo, Eichengreen et al., 1999). With respect to the latter, while goods producing sectors such as agriculture, mining and manufacturing constitute a declining share of overall U.S. gross domestic product (GDP), the amount of international trade within those sectors has increased substantially. The ratio of goods exports to agricultural, mining and manufacturing GDP was 38.1 percent in 2002,

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[3] Carol Conway, Associate Director of the Southern Growth Policies Board, an organization of southern governors, in a recent speech in Tokyo: "The current poster child for trade-related job loss is PillowTex, which in one fell swoop laid off some 6,000 workers in rural North Carolina and Virginia. Never mind that the underlying cause of the corporation's demise was a foolish, debt-riddled merger and acquisition strategy and the banks' equally foolish willingness to believe in rosy growth scenarios. . .globalization is taking all the blame. Add to that the newest scare—thousands of software jobs moving to India—and you have a powerful political backlash in the making" (Conway, 2003, pp. 3-4).

[4] The quotation also appears in partial form in (Krugman, 1995).

[5] According to Bhagwati (2004, p. 13): ". . .the complacent view that there is nothing new about globalization is simply wrong."

Table 1
Summary of factors distinguishing today's globalization trends

Sectoral shift	• Substantial growth of intraindustry trade • Merchandise sector trade dependence • Increase in services trade
Organizational shift	• International component outsourcing • Rise in offshoring • Increase in intrafirm international transactions
Spatial shift	• Vertical specialization on a large scale • Emergence of supertrading countries • Growth of exports from low- to high-wage countries
Adjustment pressure	• Increased speed of response to emerging international market opportunities
Government role	• State activism as globalization driver • Stronger perception of government responsibility for mitigating adverse effects of economic integration and trade

up from 37.8 percent in 1999 and about 15 percent in 1970 (Irwin, 2002; Council of Economic Advisers, 2004). Goods sectors are exporting, importing, offshoring and outsourcing more—in relative terms—than ever before, with significant impacts for U.S. regions that formerly captured much of their associated value chains. Also in the category of sectoral shifts are the significant increase in services trade and the reduction in the types of services that are "non-tradable," both closely-related trends that can be attributed to advances in information technology and the continued digitization of services. The rise of services trade means that activities that were once viewed as domestic growth engines that will replace declining commodity production are now subject to growing international competition. Corporate offshoring decisions, such as that recently made by Indiana-based Cummins Incorporated to set up a high tech center in India to speed computerized design and testing of truck engines (Oneal, 2004), are wreaking havoc with the conventional view that the U.S. will necessarily capture high value, technology- and knowledge-intensive segments of key value chains.[6]

The second category of globalization trends concern shifts in business organization strategies and practices, including increases in component outsourcing to international suppliers and subsidiaries and increased offshoring of services like information processing and customer support (McKinsey Global Institute, 2003;

[6] There is a heavy "stages" bias (e.g., Rostow, 1960) in local and regional economic development thinking in the U.S. The view that U.S. regional economies will evolve naturally toward high technology and knowledge-based activities as less developed countries like China and India assume production of labor-intensive commodities is deep-seated. High-tech international outsourcing to low-wage countries is challenging this stages view, heightening fears of pending dramatic reductions in the U.S. standard of living.

Farrell, 2004). Related to those two trends is the rise of the multinational firm as the globalization lynchpin (McCann and Mudambi, 2004). It is hard to overstate how dominant multinational firms are as influences on globalization trends. Hanson and Slaughter (2003) report that 11,151 businesses in the U.S. were part of a multinational firm in 1999. That was roughly 1/20th of 1 percent of the total of over 24 million U.S. businesses. However, the authors estimate that multinationals accounted for 80 percent of U.S. goods exports, 66 percent of U.S. goods imports, 42 percent of U.S. capital investment, and 82 percent of U.S. industrial research and development in that year (Hanson and Slaughter, 2003, p. 5). In addition, multinationals accounted for about 25 and 32 percent, respectively, of U.S. non-bank employment and GDP. Multinationals' influence therefore well exceeds their modest numbers. They drive globalization whether gauged in terms of production activity or as conduits for technology diffusion, global knowledge spillovers, innovation, and skilled worker international migration.

Accompanying sectoral and business organizational trends are distinct spatial shifts in the pattern of trade and location of industries (Venables, 1998). Most obvious is the emergence of supertraders or countries with extremely high ratios of trade to GDP. Examples are Singapore, Hong Kong, Malaysia, Belgium, and Ire-

Table 2.
Globalization concepts and terminology

Concepts	Description
Outsourcing	Decision by one company to contract with another company or subsidiary to provide services or products (inputs).
Offshore outsourcing (or offshoring)	An outsourcing arrangement established by a domestic company with a foreign contractor or subsidiary.
Vertical foreign direct investment (FDI)	Company invests in the relocation of a given stage of its production to a foreign country; may result in offshore outsourcing via a wholly or partially-owned subsidiary.
Vertically integrated multinational firm	Firm that uses its own foreign and domestic units to produce a good rather than arm's-length relationships (contracts) with other companies.
Horizontal specialization in trade	Pattern of trade that results when companies use entirely domestic inputs in exported products. Implies that trading countries specialize in the full value chain of selected products.
Vertical specialization in trade	Pattern of trade that results when companies use imported inputs in products that are subsequently exported (Balassa, 1967; Findlay, 1978; Sanyal, 1983; Hummels, Ishii et al., 2001). Involves a domestic company outsourcing part of the production of its exported good. Sometimes called "intra-product specialization," "global production sharing," or "slicing up the value chain." Implies that trading countries increasingly specialize in certain segments of value chains.
Hollowing out	The transfer of the production base of a given industry overseas or out of a region, leaving the service and/or R&D components. Driven by offshore outsourcing or vertical FDI and implies increase in vertical specialization in trade.

land. Also significant has been growth in commodity exports from low-wage to high-wage regions, especially as the former have become satellite production locations for multinationals serving industrialized markets. But perhaps the trend with the most significance for local development strategy is increasing vertical specialization in trade, or the growing tendency of trading countries to specialize in specific pieces or segments of product value chains (Balassa, 1967; Hummels, Rapoport et al., 1998; Hummels, Ishii et al., 2001; Yi, 2003). Sometimes described as "slicing up the value chain," vertical specialization is one result of company outsourcing, itself made possible by new information technologies, better information technology infrastructure, management innovations, and lower transportation costs. Vertical specialization implies increasing business locational flexibility, but in a world in which it there are still advantages to agglomeration. Trade specialization may occur because of spatial externalities conferred by the clustering of specialized industries, though it could also be driven by other factors such as traditional comparative advantage. A given product is no longer produced by a single company and its suppliers and subsidiaries in a single location (a single agglomeration) but rather by specialized clusters of companies (multiple agglomerations) in different parts of the world. In essence, what we are seeing occurring on a global scale is the same value chain specialization that has characterized the regional distribution of economic activity within countries for a long time.

The fourth category of globalization trends refers to the nature of adjustment to the new economic order. Relaxed capital controls, advanced information technology, and improvements in transportation infrastructure mean that goods, services, and capital flows are increasing significantly (Stiglitz, 2002). Loosened capital controls in less developed countries have brought with them the potential for huge financial management problems that are not so much unprecedented in their scale as in the dramatic and uncontrollable speed with which they emerge (Bhagwati, 2004). Moreover, because there is competition from a much larger pool of potential rivals, new business opportunities can materialize and then evaporate very quickly. That creates a challenging business environment, especially for less developed countries and regions. It implies shorter cycles of regional competitive advantage and therefore more rapid structural change and greater churn in labor markets. In tandem, there is a lower margin for error for development strategies aimed at encouraging local businesses to tap specific new markets.

The fifth and final category of trends refers to citizen and business perceptions of the government's role in addressing the negatives associated with economic integration. While popular understanding of the role of the welfare state is less commonly discussed in the globalization literature, it has particular significance from a policy perspective. Bhagwati (2004) argues that earlier world economic integration was driven more by technological developments in transportation and communication than policy changes (see also Krugman, 1995).[7] If today's integration is indeed propelled to a much greater degree by state activism, it must be

[7] Though note that Cooper (1995), in comments on Krugman (1995), makes a case that technological improvements in transportation are a much more important factor behind recent globalization trends than appreciated by many trade economists.

understood as a conscious policy choice that could, in principle, be reversed. How the impacts of integration are perceived by the public and leveraged (when positive) and mitigated (when negative) by governments is therefore especially important for determining globalization's future course. Moreover, because the interventionist role of the welfare state is much more widely accepted today, perceived compromises in its ability to deliver on its promises are viewed with greater concern (Bhagwati 2004).

In this environment, citizens' and businesses' heightened sense of economic insecurity is not just felt by national governments (Clark and Montjoy, 2001). Many state governors in the U.S. face considerable pressure to lobby federal trade negotiators to slow down the pace of integration. The states confronting the most significant industrial restructuring are naturally those where that pressure is most intense. Although such states might benefit from an open and balanced discussion of how to adjust policies for a global era, they are frequently not the most propitious environments for such debates. Some state and local leaders have also discovered that federal trade policy can serve as a convenient scapegoat for weak economic trends at home. Because any scapegoat is less compelling if it is admitted that more fundamental forces could also explain lackluster economic trends, incentives for unbiased consideration of policies to maximize the benefits of globalization are not always very strong.

Taking these trends together, we have a set of unique or features of the current growth of international economic integration: growing intraindustry trade, vertical specialization, the emergence of supertrading countries, stronger trading relationships between high- and low-wage nations, increased offshoring, heavy dependence on trade by merchandise sectors (particularly in the U.S., but elsewhere as well), growing trade in services, rapid growth in multinationals, and faster goods, services, and financial flows. Add to these the political context in the United States, including the strong role of the federal government in pushing integration, a pervasive sense of economic insecurity among existing and potential trading industries and their employees, the now well-established legitimacy and implied obligations of the welfare state, and political incentives to scapegoat trade policy at the state and local level. This is the context in which globally-savvy regional economic development strategies must be discussed, designed, and implemented. What changes should be made in the mix of policies and programs promulgated in a less globalized economy? Below I argue that the answer hinges on having the right information and tools to properly evaluate options make necessary changes.

Globalization, regional policy…

We should distinguish between development policy at the regional scale and regional policy as applied by national governments. With regard to the latter, two issues are of chief concern. The first is that decisions to reduce trade barriers imply an obligation by national governments to consider and mitigate net costs for specific workers and regions (Kletzer, 2002; Rosen, 2002). In the U.S., that is the

rationale for the somewhat underutilized and arguably inadequate federal Trade Adjustment Assistance (TAA) program. Administered by the Employment and Training Administration of the U.S. Department of Labor, the TAA program provides compensation and re-employment assistance to workers dislocated from trade-impacted businesses. While such compensation is a people- rather than place-based strategy (Bolton, 1992), it has a distinct regional distribution given the spatial concentration of sectors under heavy pressure from foreign competition. In addition to TAA, a case might be made for fiscal compensation to subnational governments since they often bear a substantial part of the cost of adjustment, principally in workforce training programs subsidized through community college systems. Such compensation already occurs on a modest scale in the U.S. through occasional backdoor development planning grants or pork barrel allocations to legislative districts impacted by trade. Such are the pragmatic means of obtaining necessary Congressional support for multilateral trade agreements like NAFTA.

The second major *national* regional policy issue is whether increased integration will lead to regional income convergence or divergence. The question has received relatively modest attention to date and is ripe for additional empirical research (Stroomer and Giles, 2003). However, as in the case of compensation, the policy implications are principally national in scale, although there may be some things specific regions ought to do to avoid a path of cumulative decline.[8]

For guidance about what regions themselves should do differently, we could turn to various disparate literatures on the policy implications of selected processes influenced by globalization, such as the formation of industry clusters, the emergence of the knowledge or learning economy, and the importance of a high skilled technology-savvy workforce in advanced industrialized countries (e.g., Simmie and Sennett, 1999; Enright, 2000; Helmsing, 2001). Unfortunately, globalization is more often the assumed economic context than the direct subject of investigation. Attempts to come to a systematic and comprehensive understanding of whether globalization *per se* warrants specific regional policy responses are surprisingly difficult to find. However, three relatively recent treatments are articles by Felbinger and Robey (2001) and Rondinelli, Johnson and Kasarda (1998) and a comprehensive report by the Southern Growth Policies Board (2003), an organization of Southern governors. They are worth considering in some detail.

Felbinger and Robey (2001) claim that three new assumptions must drive state and local economic development policy in a rapidly globalizing economy: the erosion of city and state jurisdictions as meaningful units of analysis; the increasing importance of focusing on building a flexible workforce; and the value of partnerships between governments, business, and academic institutions. The authors would reduce or eliminate training programs designed to provide specialized skills based on the needs of predicted growth industries. General skill building is more appropriate given the growing difficulty of predicting what new specialized

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8 An issue somewhere between a local policy issue and a national regional policy issue is the question of whether multilateral trade and investment agreements that address spending, regulatory and procurement policies will eventually make many state and local economic development programs illegal. See Stumberg and Schweke (1999).

skill demands will emerge. Building a "flexible and adaptable platform that could accommodate innovation and change" means creating "a flexible and trained workforce, an entrepreneurial business community, a 'built' and technological infrastructure in place, and governmental regulations that not only protect the citizenry but facilitate development and innovation" (2001, pp. 68-9). In general, Felbinger and Robey would redirect investments in particular firms and industries and to government basics like education and infrastructure. However, they do cite favorably states' increasing efforts to build "centers of excellence," specialized applied research centers aimed at boosting selected technology industries.

Rondinelli, Kasarda and Johnson (1998) begin by arguing that the globalized economy is characterized by the following factors: increasing mobility in the factors of production, thereby making regions more vulnerable to structural economic shifts; the importance of technology-related and knowledge-based growth for industrialized countries; the greater need for companies to expand their markets to be competitive; growing corporate strategic and organizational agility; and the emergence of global corporate alliances and manufacturing networks. They conclude that successful cities will be those that "provide the labor force, services, and infrastructure that allow locally based domestic and foreign-owned firms to participate more successfully in the international marketplace" (p. 71-2). Cities must invest in telecommunications and transportation infrastructure; develop education and training programs that produce both high skilled workers and workers capable of transitioning to new sectors quickly; improve the quality of life of the community through the provision of cultural and environmental amenities; promote entrepreneurship and technology development; strengthen cooperation among public and private organizations and stakeholders; adopt new forms of regional governance that reduce interjurisdictional competition; and address urban poverty through aggressive inequality reduction and the development of programs focused on education and literacy, family and child development, and drug and crime prevention.

Rondinelli et al.'s prescriptions call for a highly activist development strategy with a little bit of everything, though with emphasis on education and technology/innovation promotion.[9] Among the many specific interventions they advocate are small business incubators, technology transfer programs that assist businesses in the acquisition of information about new technologies and business practices, technology commercialization assistance programs for small and medium sized businesses, business retention and expansion programs, trade promotion and brokering programs, grants to small businesses to commercialize new products, high technology zones with quality infrastructure and favorable tax and regulatory

[9] "To meet the challenges of an open world economy, new initiatives will have to be taken in American cities to form internationally oriented communities centered on agile public and private organizations promoting innovation and creativity, not only in manufacturing, trade, and services, but also in the physical sciences, technology, education, and the arts. In the future, economically vital cities will be those that can adapt their economies, physical structures, and cultures to become part of a new international urban network of trade and investment" (Rondinelli et al. 1998, p. 85).

treatment, and global trade logistics support facilities.[10] Although they assert that the hyper-mobility of capital means that attempts to pick industrial winners will fail, they nevertheless recommend that states and localities "consider creating or expanding financial and tax incentives to attract domestic and foreign firms in core industries" (p. 91).

Clearly, like Felbinger and Robey, Rondinelli et al. are ambivalent about the value of targeted development investments: picking winners is bad but promoting the growth of core industries or clusters is good. The two sets of authors are not alone. This ambivalence is reflected heavily in the applied economic development literature, especially that concerned with competitive industry clusters, a body of writing that is strongly influencing local development policy making at present (Raines, 2002; Martin and Sunley, 2003). It is an ambivalence borne of substantial uncertainty about how to aid the emergence of new regional growth engines in an environment in which firms are increasingly footloose.

A somewhat different set of ideas are advocated in the Southern Growth Policies Board (SGPB) report. The SGPB report is particularly instructive because it represents one consensus view of globalization from the perspective of public officials rather than researchers. The report identifies nineteen recommendations (see Table 3), each endorsed by Southern governors. Ten of the strategies may be characterized as emphasizing marketing, information or advocacy (e.g., branding the region as a globally-linked, explaining the benefits of trade to stakeholders, exposing regional populations to cultural diversity). Three strategies stress basic education; one, training and workforce development; and four, inter-governmental cooperation and re-engineering government. The most operational recommendation endorses trade promotion programs. In general, the report implies that the mostly trade-friendly Southern gubernatorial administrations cannot ignore growing anti-trade sentiment in a region hard-hit by the collapse of the textile, apparel, furniture and tobacco sectors (with Mexico and China as the perceived culprits). Thus its heavy emphasis on what a cynic might dismiss as public relations gimmicks rather than legitimate development interventions.

But the SGPB report should not be viewed as a purely public relations piece. It offers two important lessons. First, it is clear evidence of the emotionally charged nature of the globalization debate at the subnational level. Policy makers have obviously perceived a very pressing need to educate citizens and businesses about the opportunities international integration presents. Second, the report suggests that globalization may not imply much of a shift in the "what" aspect of regional economic development, as in "what kinds of strategies should we adopt?" One reason to advocate international education programs, global branding and trade promotion as the principal policy responses to recent globalization trends is that states are already doing many of the other things proposed by writers like Felbinger and Robey (2001) and Rondinelli, Johnson and Kasarda (1998). Indeed, strategies like technology development, entrepreneurship, incubators, and capital assistance to small businesses are actually "second wave" development initiatives

[10] An example of a new-era multi-modal transport facility is North Carolina's air cargo manufacturing project, the Global Transpark.

Table 3.
SGPB recommended regional globalization policies

Strategy	Type
Craft a vision of the globalized South (branding)	Marketing, Image
Cultivate an innovative, globally savvy business image for the South	Marketing, Image
Create a Southern initiative targeted to a developing world region	Marketing, Image
Improve the quality of foreigners' experiences in the South	Marketing, Tourism
Leverage existing connections to bolster recruitment efforts	Marketing, Attraction
Create an informed leadership and constituency for trade	Advocacy, Information
Celebrate local international connection success stories	Advocacy, Information
Internationalize local media reporting	Advocacy, Information
Develop outreach strategy to encourage civic support, volunteerism	Advocacy, Information
Encourage significantly more businesses to actively support trade	Advocacy, Information
Build comprehensive trade assistance program	Trade Assistance
Elevate state globalization policy through reorganization, accountability	Organizational
Forge multi-state partnerships to promote exports	Organizational
Fully leverage international expertise and links in higher education	Organizational
Build relations where there is a high return on investment	Organizational
Prepare every student to transition immediately to postsecondary school	Basic Education
Internationalize basic education	Basic Education
Expose youth to people from other countries	Basic Education
Embed international goals in state workforce development policies	Training

From Southern Global Strategies Council (20038}, pp. 22-49).

that were adopted in many states in the 1980s (Bradshaw and Blakely, 1999). While one could make the case that such strategies are all the more important in the face of globalization, and perhaps that they have not yet been adopted to a sufficient degree, they are not in themselves new ideas. In addition, the connection of some of the proposals to globalization often seems to be a very distant one. While fighting urban crime and poverty and reducing any unnecessary barriers to new business formation are surely important aims, it is hard to see how globalization *per se* has made them that much more imperative.

…and research

What is missing in the debate about what globalization means for regional development policy is the *how* problem, as in "how do we get some of these things done?" The how problem relates to whether or not we have the right factual information and planning tools to design programs; to make multi-level allocation decisions that consider efficiency, distribution, and opportunity cost issues; and to conduct evaluations. Being proactive in economic development policy requires

sound decision making regarding the relative distribution of scarce resources between general economic framework building on the one hand, and direct development interventions on the other. The former refers to changes in the rules, regulations, system of public finance and public services, and physical, technology, and education infrastructure; the latter to, first, programs or strategies to aid *adjustment* to restructuring and, second, initiatives to boost *growth* by fostering new regional economic engines. Additional difficult allocation and strategy design decisions must be made within those major categories of activity.

Taking just one example of the challenge facing policy makers, few are the regions that will not attempt to aid the emergence of new knowledge-based industries. Such is the holy grail of 21st century economic development. But how should it be done? Via a "shoot everything that flies" recruitment approach (Rubin, 1988), a scrupulously hands-off scheme to foster entrepreneurial growth wherever emerges, a precision "pick winners" strategy that aims a host of initiatives at predicted growth sectors (Rondinelli, Johnson et al., 1998), or a centers of excellence plan that emphasizes innovation as proposed by Felbinger and Robey (2001)? Would a single type of development instrument (e.g., tax inducements) be most effective, or many instruments in combination? Clearly it is a practical challenge of enormous dimensions with much room for wasted resources and counterproductive intervention. It is also a problem for which the globalization trends have significant bearing. The following sections discuss ways in which globalization trends are contributing to a widening gap between the *what* and the *how* in regional economic development planning and policy. Rather than attempting to be exhaustive, I suggest several particularly important areas of research that would help to bridge the gap.

Location incentives and subnational tax policy. One of the most active areas of economic development intervention at the subnational scale in the U.S. is the provision of tax and non-tax industrial location incentives (Bartik, 2003). Paradoxically, despite the view predominant in the academic literature that incentives have little influence on company location behavior or hiring decisions, their use continues unabated. Indeed, a loosening of the geographic bounds on capital concomitant with globalization actually may be encouraging cities and states to increase their use of various inducements in an attempt to capture more activity from what is almost certainly a growing pool of footloose firms (Clark and Montjoy, 2001). Both the Organization for Economic Co-operation and Development (OECD) and the European Union (OECD, 1998) have implemented programs to examine the question of whether interstate tax competition is increasingly harmful in an integrated world economy.[11] While not strictly focused on incentives, their concern is that globalization is limiting governments' ability to set their tax regimes independently. The notion is that it is getting harder to tax mobile capital and labor. There is potential that tax competition will intensify significantly, lead-

[11] According to the OECD (1998, p. 13): "…the removal of non-tax barriers to international commerce and investment and the resulting integration of national economies have greatly increased the potential impact that domestic tax policies can have on other economies."

ing to worsening fiscal strain and excessive taxation on immobile factors (Neumann, Holman et al., 2003). In general, the thrust of international efforts has been to encourage the scaling back of preferential tax treatments, thereby permitting tax base broadening and rate reductions. The goal is to minimize distortions on multi-location economic activity and limit negative fiscal spillover effects between jurisdictions.

The question of the positives and negatives of interjurisdictional tax competition has received much attention from researchers, particularly in the field of theoretical welfare economics (Wilson, 1999). However, continuing government budget pressures and concerns about maintaining a positive business climate in the face of growing international competition has many states rethinking their tax regimes. The fact is that U.S. state tax codes are riddled with results of decades of favored treatment for selected sectors, attempts to copy the incentives of neighboring states, and a myriad of well-meaning but complex provisions to encourage investments in new technologies, equipment, and research and development. Add to that a growing number of non-tax inducements, from direct cash grants to provision of subsidized training, and interjurisdictional competition for development in the U.S. is probably as intense as ever.

As researchers, it is worth asking why incentives remain so popular if they are ineffective. Part of the answer is surely that many policy makers fail to grasp all of the welfare economics issues involved or are not familiar with the findings in the empirical literature. Also a factor is the political value of the "symbolic" capture of economic activity that would have occurred anyway.[12] But it is also true that research that would aid practical incentives reform is either scarce or uncompelling. Attempts to encourage states to undertake reform cannot simply address whether incentives produce faster growth or truly induce new economic activity, the subject of the bulk of academic research to date. For states and regions to make changes to existing policies, they need to know what incremental adjustments to existing programs make the most sense. The wholesale elimination of incentives is politically infeasible in most cases, and may not even be desirable (Bartik, 2004).[13] Three major kinds of information would significantly inform incentives policy.

First, there is a need for consistent and reliable information on the level of financial benefits that given tax and non-tax incentives provide to businesses, acknowledging that many firms are increasingly mobile and multi-locational. Financial benefit is the most basic pre-condition for incentives efficacy, not to mention the evaluation of the welfare implications of a given incentive and the prediction of the fiscal impact of a policy change. Figuring out the relative value of various inducements is no trivial exercise, as work by Fisher and Peters' (1998) convincingly demonstrates. Too much of the existing research uses an effective tax rate approach that is convenient analytically but is of little value to those

[12] The political "rationality" of incentives in the face of evidence of their ineffectiveness has received too little attention in the literature (Wolman, 1988).

[13] The complete harmonization of tax systems is not contemplated by either the OECD or European Union.

charged with making adjustments to inducement programs and legislation. Hypothetical firm models, by contrast, have the potential to significantly inform incentives design, particularly by enabling comparisons across states and regions. They can also lay bare how multi-locational and multinational enterprises are able to exploit the interaction of state tax systems, increasing free rider behavior. Partial interjurisdictional comparisons of incentives and tax burdens almost certainly generate misleading pictures of the benefits enjoyed by firms in various locations.

Second, undoubtedly many incentives are poorly targeted, since states have traditionally focused on encouraging manufacturing activity over other industries.[14] There has also been a bias toward assisting larger companies. While development policy makers are often aware that most new growth will derive from non-manufacturing and technology-based industries, particularly from sectors like advanced business services and health, a legacy of incentives to manufacturing limits states' fiscal capability to assist other industries or smaller businesses. Any serious attempt to improve incentives targeting will necessitate the scaling back of favored treatment for large manufacturing interests, a politically difficult option, especially as manufacturers face stiffening competition from low-cost producers overseas. Without clear and compelling evidence of the net fiscal and economic impacts of redirecting incentives in various ways, few states will have the political will to do anything other than expand inducements when fiscal conditions allow. The default solution to the targeting problem is to pass out more benefits when times are good, further exacerbating the state's fiscal position when times are bad.

Third, a key issue limiting incentives reform is the prisoner's dilemma problem. For obvious reasons, states are loath to unilaterally scale back their incentives programs, even to lower overall tax rates. Research and models that provide estimates of the interregional, interjurisdictional impact of alternative single- and multi-region incentives reforms are therefore essential. Such work is particularly important in light of growing regional agglomerations that span jurisdictional borders as well as evidence that regional economies within nations are becoming increasingly integrated (Hewings, Schindler et al., 1998; Munroe and Hewings, 1999).

Operationalizing workforce transition. One of the biggest challenges that increased international competition is introducing for subnational governments is the need to aid the job transition of workers displaced from declining industries. To build systems capable of doing this on a continuous basis, states and regions are searching for better ways to join analysis of current and projected structural economic change to worker training systems. Intermediaries in this process in the U.S. are local workforce development boards, training providers (e.g., community

[14] It also the case that some incentives on the books are simply poorly designed. In 2003, for example, North Carolina found that its existing research and development tax credit had the inadvertent effect of rewarding companies for increasing their R&D activity outside the state. The problem lay in the measurement of research activity, the complexity of the interaction between the state and federal tax codes, and the accounting strategies of taxpayers. The case serves to illustrate how difficult it is to properly implement a tax incentive; it is surely not the only example of a perverse outcome to a well-intentioned policy.

colleges, private sector training institutes, and to a more limited degree, universities), and economic development agencies designing programs to assist the emergence of new sectors or the restructuring of old ones. More rapid structural economic change necessitates a more nimble training system that can adjust relatively quickly to the shifting workforce demands of industry, thereby ensuring a ready pool of skilled workers. Such would be the operational core of the more flexible workforce called for by Rondinelli et al. (1998) and Felbinger and Robey (2001). There is a practical need for better methodologies for continually evaluating and adjusting training curricula to anticipated training demands. Part of the solution is to better mesh economic and workforce development strategies so that efforts to proactively create new job opportunities jive with efforts to supply the workers to fill those opportunities (see Fitzgerald, 1998).

Industry occupational employment matrices have long been used to produce occupational projections from industry projections. Such occupational projections have traditionally been central to workforce development planning in the U.S. However, effective training curriculum planning requires extensive information on occupational characteristics, especially the mobility of individuals between occupations (Feser, 2003), as well as emerging skill needs in industry. The development of improved workforce planning tools and data series in the U.S., including the online Occupational Information Network (ONET) and the U.S. Census Bureau's new Local Employment Dynamics Series, offer opportunities to better understand worker transition opportunities between occupations and industries based on workers' basic skills, levels of knowledge and experience, and training. Unfortunately, tools to bring such information to bear effectively in curriculum planning remain scarce.

Location, production fragmentation, and regional cluster opportunities. Presently, conventional wisdom in the regional economic development literature holds that the U.S. and other industrialized economies will capture more knowledge-intensive, higher technology activities while less developed countries will specialize in labor-intensive commodity production and low services (e.g., customer service call centers).[15] But while that may be true in broad aggregate, it may not hold for selected regions and/or clusters of industries within advanced economies, calling into question technology-based economic development as an economic panacea. Globalization trends are significantly altering the set of locational determinants in specific sectors, such that widely-accepted assumptions about the relative footloose nature of "low value," "low skill" activity, versus "high skill" or "technology-intensive" activity may be less and less meaningful. Regulatory issues, market access, and transportation and logistics issues—singly

[15] Gresser and West (2001, p. 8) argue that trends in U.S. trade show a clear "shift toward a high-tech, high-skill economy," which raises two basic policy questions: "on one hand, how to expand the winner's circle and give Americans the education, training and other tools necessary to compete in such an economy—and on the other, how to best develop the infrastructure of rules and agreements that will fit in a world economy in which America's greatest opportunities and advantages lie in newly emerging industries." The problem may be not be so simple at the subnational scale, where the pre-conditions for technology-based development vary widely.

or in combination—mean that certain low-wage, low value activities will remain viable in the U.S. Likewise, it is clear that at least some high technology activity can be carried out effectively offshore in environments of modest workforce skill and infrastructure development. These insights are relatively well-established in general terms, but empirical work at the detailed industry level is lacking, limiting their application at the policy level where day-to-day investment and allocation decisions have to be made.

Consider the example of the South, the U.S. region hardest hit by the relaxation of import controls on textiles and apparel with China's entry into the World Trade Organization. U.S. textiles and apparel production is highly concentrated in the South, particularly in the Carolinas and Georgia. One scenario for the South is that its textiles and apparel industries will evolve naturally—or perhaps with a little push—toward the skill-intensive end of what Hanson (1996) calls regional production networks. In regional production network theory, localization economies in skill-intensive activities of established clusters bid wages upward, increasing the incentive for the out-sourcing of low-skill assembly processes to low cost locations. One result is that developed countries with established clusters will gradually adjust to supply design-oriented, R&D, and marketing services while the standardized production of commodity goods will be carried out in developing countries. That might imply that Southern development officials should seek to nurture knowledge-intensive segments of the textiles and apparel sectors as commodity production migrates overseas. The problem for the South, however, is that it has never been a center for higher-value activity in textiles and apparel. Indeed, the South has traditionally specialized in the low-technology segments of most manufacturing industry value chains (Feser and Bergman, 2000). Therefore, there may be very little localization economy or "cluster advantage" to one of the largest spatial clusters of textiles and apparel activity in the U.S. Indeed, places like New York and Los Angeles, where clothing design and marketing activities are concentrated, are more likely to benefit from freer trade and cost-saving outsourcing than Southern states.

To take another example, Alabama, Georgia, and North Carolina were among many other states that competed hard in 2003 to attract the planned manufacturing facility for the new Boeing 7E7 Dreamliner (now renamed the 787). Each offered up substantial incentives packages. Key to the attraction efforts was the prospect that the facility would anchor a new technology-based aircraft industry cluster that could replace employment losses in the textiles, apparel, furniture, and tobacco manufacturing industries. In that context, it was hoped that the Boeing facility would be accompanied by a network of locally-based suppliers while also generating lateral linkages from additional aircraft plant locations in proximity of the site. However, in a single company example of vertical specialization, Boeing's plans included an extensive global sourcing strategy that included purchase of wings, fuselage and engine components from overseas partners. It was possible that the 7E7 facility would be little more than a satellite assembly site with little follow-on development, a good project to be sure, but one that might not spur enough additional activity to justify record incentives packages.

Both the Southern textiles/apparel and Boeing recruiting cases are examples of how more research on what Taylor (2001, p. 3) calls the microeconomics of globalization—how "agents directly linked with global markets connect others with the global economy, through their transactions with local and regional markets"—can significantly inform local development planning. In the textiles/apparel case, it is a question of what can and should be salvaged from an industry cluster whose historic competitive advantage is rapidly eroding. In the case of Boeing, it is a matter of what local and regional linkages can be expected to emerge from a multinational firm. Work that is especially promising for uncovering changing location dynamics includes empirical research on vertical production networks and the location of multinational firms (e.g., McCann, Arita et al., 2002; Hanson, Mataloni et al., 2003); studies of the relationships between input sourcing, transportation factors and logistics, and location (McCann, 1993, 1995; McCann and Fingleton, 1996; McCann, 1998); and analysis of whether the international fragmentation production will lead to the regional agglomeration or de-glomeration of economic activity (Jones and Kierzkowski, 2004b, 2004a).

Interregional trade modeling and structural analysis. Globalization trends are exposing the high costs of regions' rudimentary approaches for understanding their economies. Regional development agencies still rely heavily on single-region models and economic analysis techniques for impact prediction, forecasting, and studies of structural economic change. This is somewhat paradoxical given the intense level of policy interest in the last decade in industry clusters, a concept which explicitly prioritizes consideration of industrial and interregional interdependence. Surprisingly, much industry cluster analysis remains little more than the application of simple indicators like location quotients to sector-based data; it is often cluster analysis only in name and not technique (Bergman and Feser, 1999). The paucity of interregional trade flows data is obviously partly to blame for the dominance of single-region models (Polenske and Hewings, 2004), but it is also the case that many development agencies have failed to develop the internal capacity to promote, as well as utilize, more sophisticated approaches (more about this below). That is a shame because the growing extent to which subnational economies are linked to one another and the global economy—with all that implies for development strategy formulation—will never be fully appreciated by policy makers until it can be demonstrated empirically for their own regions.

The promise of interregional models for understanding regional structural economic change and informing practical policy alternatives is demonstrated in convincing fashion in work by the University of Illinois' Regional Economics Applications Laboratory in cooperation with the Federal Reserve Bank of Chicago (Hewings, Schindler et al., 1998; Hewings, Sonis et al., 1998; Okuyama, Hewings et al., 2002; Testa, 2002). A range of studies using models constructed with input-output and interregional commodity flows data have shown just how significant trade is to the Chicago, Illinois, and Midwestern economies, and that the vast majority of the flows are domestic rather than international. It is not the case that all the methodological and data challenges of interregional modeling have been solved. As Polenske and Hewings note (2004, p. 271-2): "For questions about

dramatically different structures and locations of production, such as are now occurring in the United States and elsewhere, none of the models developed so far will be able to provide very accurate estimates." The point is that more progress is needed, and that will only come with continued research and application. It is hard to imagine how, in the face of increased international and interregional integration, we can hope to formulate effective economic development strategies in the absence of interregional analytical techniques. Writing off such methods and models as overly complex or esoteric is precisely the wrong approach. If we did that thirty years ago, we would not even have the single-region planning and analysis models that predominate today.

Summary

States and regions are making daily investments and spending decisions whose long-range impacts are uncertain (even becoming more uncertain, perhaps) and depend heavily on questionable assumptions about global-regional economic dynamics. I have argued in this paper that those assumptions are not necessarily outmoded at the broad policy-level—as when a state chooses to support technology-based economic development—but rather at the *operational* level, as when programs are designed, sectors are targeted, resources are allocated, and estimates of the impact of a given investment, project or program are calculated and evaluated against estimates derived for other potential interventions. Likewise they are outmoded when decisions about general government spending are made on the basis of revenue projections that fail to reflect regional economic vulnerabilities to international price, supply, and demand shocks. To often it seems we do not know *how* to do *what* we often already know we ought to do, a problem globalization is only making worse. We probably understand better than ever before that regions require a flexible workforce that can adjust more quickly to structural economic change, but figuring out how best to nurture such a workforce through carefully designed interventions remains a major hurdle. Likewise, however much we agree that fostering new competitive industry clusters is a good idea, it is increasingly difficult to make sound judgments about where to target investments in business and technology development, given increasingly mobile capital and labor.

All economic development programs are instituted at the expense of other government programs and therefore the ability to explicitly model trade-offs between investments is essential, especially if the political climate leans toward traditional development interventions that are counter-productive in a global economic environment. In a scarce resource environment, general discussions of global-friendly strategies, without specific elucidation of how to put those strategies into practice and to measure gains and losses, provide only modest substantive policy guidance. They therefore represent little valuable currency in the political marketplace where budgetary and programmatic decisions are made.

Clearly planning effectively in a globalizing economy demands better empirical information (facts) and tools (models, frameworks). But the challenge is not the research community's alone. The time is long overdue for statistical agencies to rethink what information is required to fully understand global economic trends at the regional scale. The absence of reasonably detailed and timely interregional trade data is a major problem. And regional development agencies must get serious about building the internal capacity to think and act strategically. Most economic development organizations are ill-equipped to effectively utilize the latest knowledge, models and tools because they continue to under-invest in their own applied analytical capability (Feser, 2005). Not only is regional economic policy making too reactive as a result, but development officials are poor advocates for needed investments in data collection, modeling and empirical research. This creates a widening and self-reinforcing gulf between researchers and research users, where the former develop increasingly sophisticated models with less data and fewer real-world opportunities to apply them and the latter rely on simplistic tools whose validity is eroding rapidly. Adjusting our regional economic development strategies to the new world economic order will therefore require more robust partnerships between those who would develop new tools and generate facts, those who collect the information necessary to properly understand trends and drive planning tools, and those who would put planning tools and facts to good use.

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