

## **6 Specialized Agriculture: Local Markets & Global Competitors in Ohio's Greenhouse Industry**

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### **6.1 Introduction**

The geography of globalization and the implications it has upon business have been widely examined. However, the examination of practices relating to local entrepreneurs has been overlooked when observed from the context of the global marketplace as well as within current literature about place competition (see Cox and Mair 1988; Cox 1998). The contradictions between the ability for capital to move freely and the place-bound character of large immobile investments are clear (Phelps and Raines 2003). Yet, not so evident are the practices of the local firm that can either take advantage of or ignore emerging global markets. The greenhouse industry has historically been reliant upon retailers and wholesalers located in close proximity. However, with the development of technologies that allow for sensitive products such as flora to be shipped at continually increasing distances<sup>1</sup>, Ohio growers now find competition from neighboring counties, states, and foreign countries--particularly Canada (LaFary et al 2005; Reid and Carroll 2005). Moreover, the industrial geographies of globalization have focused almost exclusively on mainstream economic activities such as manufacturing and/or so-called emerging new economic sectors such as information technologies. A resultant consequence is research into activities of entrepreneurs situated at the economic margins has gone unnoticed. For this reason, we investigate the local and global dynamics facing Ohio greenhouse growers and their entrepreneurial practices unlocking the existing silences observed in the literature. Ultimately, the concepts of local dependence, globalization, and operational responses from the Ohio greenhouse industry in the global marketplace will be examined.

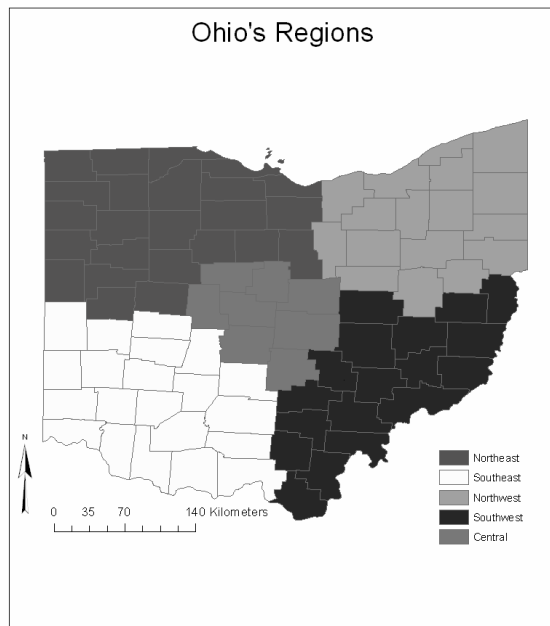
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<sup>1</sup> See Beyers and Lindahl (1996) for a discussion of time-space compression and the ability of firms to effectively escape local dependence and/or maintain long distance transactions.

## 6.2 Globalization, Local Dependence and Greenhouses

In Ohio, globalization has become synonymous with emerging trade agreements, specifically, the Central American Free Trade Agreement (CAFTA) or the earlier North American Free Trade Agreement (NAFTA). These trade partnerships (or treaties) have created an environment of uncertainty for Midwestern states traditionally touted as manufacturing centers. While much has been written on the geographies of manufacturing and the impending threats associated with access to cheap labor (think Ross Perot's infamous "Giant Sucking Sound"), the hidden anxieties of agriculture remain understudied. But, the plight of agriculture has not gone unnoticed. Indeed, Ohioans and their congressional delegation—led by Representative Marcy Kaptur—have begun to focus energies on preserving and expanding agricultural industries as well as developing strategies to penetrate the new and restructured nature of the global agricultural marketplace.

**Fig 1.**



As part of the policy efforts to expand agri-industries, a 2003 special research grant from the United States Department of Agriculture funded a team of scholars

to investigate the economic conditions of the northwest Ohio greenhouse industry. The objective of the project was to benchmark the status and overall trajectory of the industry as well as elucidate the geographies of emerging and restructuring floriculture markets. In 2004, the study was expanded to include the entire state. *In tota*, these efforts represent an initial accounting of the state of the industry and an effort to define the industry's potential as an "economic cluster" for the purpose of improving its overall competitiveness. This chapter will use survey data to discuss the overall degree of globalization of Ohio firms, sketch the extent of grower anxiety over broader competition (i.e., globalization), as well as detail the strategies of firms to increase productivity and overall competitiveness.

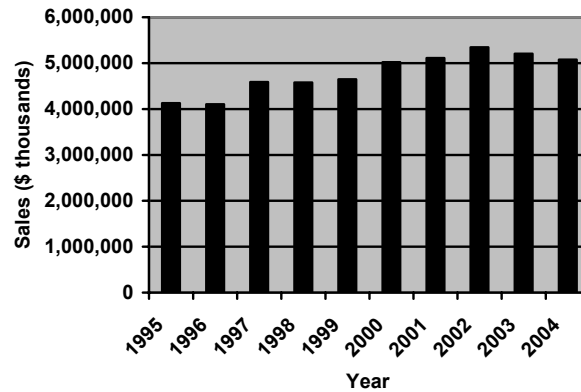
### 6.3 The Greenhouse Industry: Background and Trends in Floriculture

The greenhouse industry is an important, however, neglected industry as seventy-five percent of all U.S. households participate in activities related to gardening. American households spent an average of \$449 on lawns and gardens during 2004, resulting in annual sales of \$36.8 billion. Floriculture crops include a wide range of products associated with the sector, including bedding plants, potted flowering plants, foliage plants, and cut flowers<sup>22</sup>. Like the rest of the industry, this particular segment is growing. Between 1995 and 2004 the total value of U.S. floriculture sales increased twenty-three percent to just over \$5 billion (Figure 2). This evolution is reflected in the fact that, in recent years, American households have increasingly purchased more of the industry's products. Between 1995 and 2002 the amount of money the average household spent on floriculture crops increased more than seventeen percent from \$48.34 per year in 1995 to \$56.70 per year in 2002. Furthermore, it is estimated that Americans spend two to three times more on outdoor plants than consumers in other industrialized countries (Agri-Food Trade Service, 2000). These characteristics make the United States an attractive target for floriculture industries in other countries.

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<sup>22</sup> Floriculture production corresponds with Harmonized System (HS) codes 0601 (bulbs, tubers etc, chicory plants & roots nesoi), 0602 (live plants nesoi, cuttings etc., mushroom spawn), 0603 (cut flowers & buds for bouquet etc., prepared), and 0604 (foliage, grasses etc. for bouquets etc, prepared) . The Harmonized System is an "international commodity classification (with six digit codes) developed under the auspices of the World Customs Organization (WCO) , an independent intergovernmental body former called the Customs Cooperation Council" (Industry Canada 2005).

Fig. 2. Value of Floriculture Sales in the United States, 1995-2004 (2004 U.S. dollars)

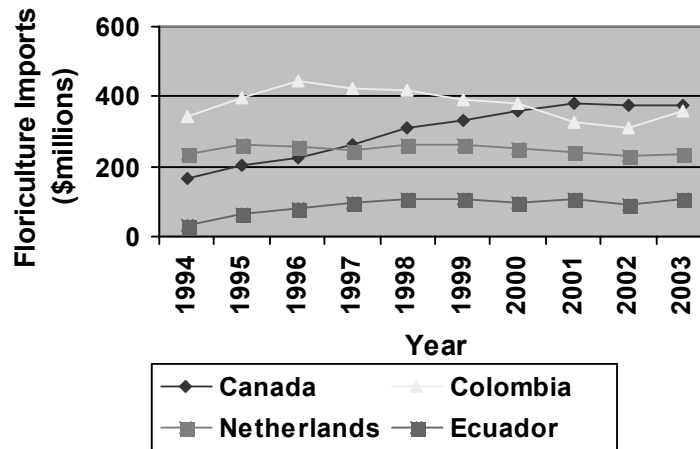


SOURCE: United States Department of Agriculture 2004b

### 6.3.2 Floriculture Import Patterns

In recent years, competition within floriculture has become increasingly global in nature. Producers in one geographic region of a country are as likely to be competing with growers in another country as with firms inside their own national boundaries. Between 1994 and 2003 imports of floriculture produce increased over forty-one percent to nearly \$1.3 billion (United States Department of Agriculture 2004a). The majority of floriculture imports (84%) into the United States represent only four competing countries in Canada (29.3%), Colombia (27.8%), the Netherlands (18.5%), and Ecuador (8.5%). During the period 1994-2003 the most significant gains in terms of accessing the U.S. floriculture market has been made by Canadian growers (Figure 3). Canadian floriculture exports to the United States increased from just under \$140 million in 1994 to nearly \$340 million in 2003—an increase of 143.4%. Furthermore, Ecuadorian floriculture exports to the United States demonstrated marked gains during the same period increasing from more than \$30 million to nearly \$110 million. However, Colombia and the Netherlands experienced only modest increases. U.S. floriculture imports are nearly evenly divided between nursery stock (51%) and cut flowers (49%). The origins of nursery stock and cut flower imports differ dramatically, however. The primary sources of nursery stock imports (including bedding plants, bulbs, and live trees) are Canada and the Netherlands. Canada accounts for 48.5% of nursery stock imports to the United States, while the Netherlands accounts for 25.7%. Penetration of the U.S. cut flower market is dominated by Colombia. More than fifty-six percent of U.S. cut flower imports come from Colombia. Smaller, but nevertheless significant shares come from Ecuador (17.3%) and the Netherlands (11.1%).

Fig. 3. Origin of Floriculture Imports to the United States, 1994-2003 (2004 U.S. dollars)



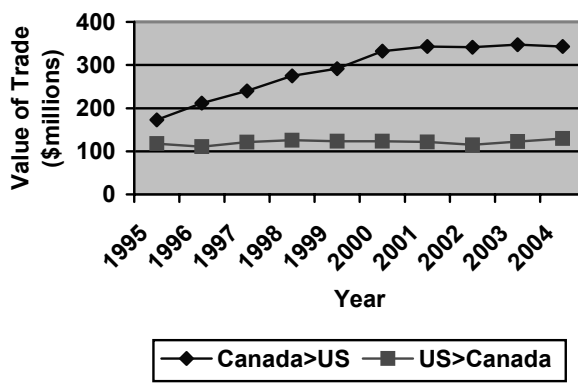
Source: United States Department of Agriculture 2004a

### 6.3.3 Canada-US Floriculture Trade Patterns

The impending Canadian penetration of the U.S. floriculture market (Figure 4) is one of the most significant developments within the respective industry in recent years. The United States is, indeed, the primary destination for Canadian floriculture exports. In 2004, Canada exported \$342,988,793 of floriculture crops to the United States. This represented 97.9% of Canadian floriculture exports (Industry Canada 2005). Whilst Canadian floriculture producers have successfully made inroads into the U.S. market, the same cannot be said with regards to the ability of U.S. producers to access the Canadian market. The result is an ever-increasing trade imbalance in floriculture. Between 1995 and 2004, Canada's trade surplus with the United States in floriculture products increased from \$44.6 million to \$213.4 million. Canadian access to U.S. markets has been assisted by a number of factors. Initially, the 1994 passage of the North American Free Trade Agreement (NAFTA) made it easier for Canadian producers to enter the U.S. marketplace. Subsequently, Canadian penetration of the U.S. floriculture market has been aided by the fact that, during the period 1995-2002 the U.S. dollar was strong relative to the Canadian dollar. However, (2003-2005) the Canadian dollar has gained strength in terms of value compared to the U.S. dollar. The strengthening Canadian dollar coincides with a flattening-off of Canadian floriculture exports to the United States. If the Canadian dollar continues to increase its global value, the Canadian floriculture export market could be significantly depressed. The critical

value, at which Canadian floriculture exports to the United States could be severely compromised, is generally thought to be \$US1 to \$C1.25 (Ontario Horticultural Crops Research and Services Committee 2003). This critical value was reached in late-October 2004 (Bank of Canada 2005). Thus, the continuation of the Ohio Greenhouse Survey is necessary to monitor the Canadian-U.S. floriculture trade dynamics.

Fig. 4. Canada-US Floriculture Trade, 1995-2004 (2004 U.S. dollars)



Source: Industry Canada 2005

More than half of U.S. floriculture imports from Canada come from Ontario. Other major exporting provinces are British Columbia (19.8%), Quebec (9.5%), and New Brunswick (8.4%). These origin regions reflect the geography of Canadian floriculture production. The major U.S. destinations for Canadian floriculture exports are states concentrated around the Great Lakes region (Source: Industry Canada, 2005).

## 6.4 Data and Methods

A sample of 500 potential respondents was extracted from OFA—an association of floriculture professional members' mailing list. Respondents received a nominal stipend of twenty-dollars for participation. Questions were developed to unpack the current practices and to reveal the status of Ohio's greenhouses. Production methods and materials, employment trends, as well as financial aspects, were used to derive Ohio's greenhouse geography. The survey was comprised of 59 questions. OFA and the United States Department of Agriculture (USDA) were instrumental in developing widespread interest in the study. In particular, OFA utilized its mailing list to encourage participation from members. The Toledo

Botanical Gardens mailed 500 copies of the survey to respondents. The response rate was 24.2% (n=121). Following the return of surveys, respondents were categorized by region. Specifically, 5 Ohio regions were identified based on the defined as Northwest (NW) (Toledo-Lima-Findlay), Northeast (NE) (Cleveland-Akron-Canton), Central (Columbus-Delaware-Newark), Southeast (SE) (Cincinnati-Dayton), Southwest (SW) (Wheeling, WV; Weirton, WV; Huntington, WV; Parkersburg, WV). Finally, the responses were entered into an electronic database to enable statistical analyses.

## 6.5 Results

The results are organized around two themes: Globalization and Markets & Sales. Each of these themes address various facets of the global conditions facing local firms and are used to elucidate firm response to changing and emerging markets as well as global competition.

### 6.5.1 Globalization

To understand the overall perceptions of firms with respect to the trajectory of the industry and their position in the global market, key questions were selected to determine the overall perceived “degree” of competition from non-local firms with an emphasis on Canadian firms. Additionally, the survey explores the importance of and potential for Ohio growers to develop niche markets to increase the overall competitiveness of the industry.

Of primary importance to this research is the perception of growers concerning the global marketplace insofar as how NAFTA—and now CAFTA—have altered the economic landscape. Specifically, we are concerned with the perceived competitive threat of non-local firms. Based on survey responses though, it is evident that all growers perceive their primary competitive to be firms located locally (Table 1). Four of five regions indicated that more than two-thirds of firms perceive local competition as moderate to high. The exception, the southwestern region, had very few respondents and thus, a lowered level of recognized competition from local businesses might be expected given the limited number of respondents (and total firms based on a survey of the OFA directory). Yet, Ohio firms do recognize the importance of non-local firms (see Table 2). The research unexpectedly indicated that the perceived competition from Canada was low to moderate. That is to

**Table 1**

Region	Perception of Competition from Local Area			Total
	Low	Moderate	High	
Northwest	7	6	8	21
Southwest	7	21	5	33
Northeast	9	13	10	32
Southeast	4	0	0	4
Central	4	7	6	17
Ohio	31	47	23	N= 107

the research team—based primarily in Northwest and Central Ohio—had say, Ohio growers recognized the potential for Canadian firms to penetrate local markets—however; the overall impact was not as severe as anticipated. Indeed, expected NW growers to be especially concerned with potential competition from the north given the region’s proximity to Canada and heightened awareness of NAFTA and related trade issues. While fifty-five percent of firms in the NE see Canada as at least a moderate threat, only twenty-two percent of growers in the northwestern region have the same outlook. In fact, only six percent of NW enterprises see Canada as a highly competitive market compared to nearly a quarter of each of the southwestern, northeastern, and central regions’ greenhouse firms (Table 2). The survey further suggests that distance-decay may be a factor in terms of international competition. That is to say, surveyed firms as only fifteen percent of respondents feel that countries other than Canada compete in their markets—with Mexico being dominant. Further, only four percent of Ohio firms perceive competition from countries outside North America as high. In spite of the survey responses, the empirical evidence demonstrates that Ohio floriculture exports remain stagnant and imports—particularly from Canada and to a lesser extent Ecuador—are steadily increasing their share of U.S. floriculture markets (see Reid and Carroll 2005). In short, Ohio growers have not fully engaged in export markets and may have been slow to respond to the expansion of imported goods.

**Table 2**

Region	Perception of Competition from Canada			Total
	Low	Moderate	High	
Northwest	14	3	1	19
Southwest	18	6	6	30
Northeast	14	9	8	31
Southeast	2	1	0	3
Central	8	5	4	17
Ohio	56	24	19	N= 99

One approach toward expanding the capacity to export greenhouse goods and/or improve the overall competitiveness domestically—thereby decreasing imports is the formation of a greenhouse grower co-operative. Indeed, the cooperative (or coalition) strategy has been effectively used by the Canadian industry. Traditionally, the co-operative approach has been organized around reducing input costs or coordinating market delivery (outputs). In the case of Ohio growers, either or both co-op strategies may be useful. Indeed, the internal need already exists as the respondents indicate that fuel prices (i.e., inputs) are of high concern to the respondents. In response, Ohio growers indicated they would, for the most part, utilize co-ops to purchase soils, fuels, and potting containers. However, some respondents reported the possibility of marketing and labor pooling through the

competitive partnership. Interestingly, the desire to create a cooperative varies, in some instances, drastically by region (Table 3). Overall, about sixty-four percent of Ohio firms are interested in creating a co-op (either input or output based). Yet, a tension exists between growers insofar as they perceive each other as the primary competition—not non-local growers. For this reason, the formation of a true cooperative arrangement may prove difficult, as growers must partner with local competitors. Interestingly, those regions (i.e., northeast and central) that perceive market threats beyond the local scale appear more likely to pursue cooperative agreements. Hence, firms that have come to recognize the highly competitive and more global (or at-least less local) scale of the floriculture market appear to be taking the initial step of reconsidering the possibility of restructuring their organizations. In the end though, the survey data suggests that the implementation of a cooperative intended to further the Ohio greenhouse industry has the potential to address key concerns of growers including the development of niche markets, modernization of equipment, expansion of production capacity, and reduction of costs.

**Table 3**

	Interest in Creating a Cooperative		Total
	No	Yes	
Northwest	8	11	19
Southwest	12	14	26
Northeast	11	16	27
Southeast	0	4	4
Central	1	13	14
Ohio	32	58	N=90

Finally, the NW region has begun to respond to the new global environment by embracing the industrial cluster model to improve the competitiveness of the industry. The latest efforts of NW Ohio are the results of a sustained educational effort to increase awareness of new market structures and competitive structures. In future years, the NW cluster will begin aggressively “branding” the industry in an attempt to define and capture niche markets.

### 6.5.2 Markets and Sales

More than seventy percent of growers responded that competition from the local area was at least moderate. In fact, nearly one-quarter of respondents rate local

competition as high. These findings are expected given that nearly ninety-five percent of all Ohio greenhouse firms participating in the study sell at least thirty percent of finished products locally (Table 4). Less than one out of four firms sold products to neighboring states; while, seven percent of respondents reported selling their finished products to states not bordering Ohio. Perhaps most surprising is the finding that only one grower indicated sales outside of the United States. These findings clearly demonstrate the local dependence of the Ohio greenhouse industry. Further, these results are denotative that the treatises formed by the United States and its neighboring nation-states are having at most a moderate impact upon Ohio growers' perceptions of the emerging, in fact existing, global marketplace. The realization that the state's greenhouse firms are not responding to the influx of Canadian and increasingly Latin American and Scandinavian products illustrates the industry's need to increase educational efforts as well as to explore markets outside of traditional socially constructed borders.

Many firms in Ohio have attained increased sales during the past five years. More than fifty-seven percent of respondents affirmed increases during the same time-span. Ironically, production capacity and the firm's length of operation do not, in the case of this survey, equal increased sales (Table 5). In fact, the northwest (NW) and northeast (NE) regions of the state house the enterprises with the greatest amount of production area as well as the longest running operations. However, the region with the smallest production centers, all operating less than 10

**Table 4**

	Percentage of Sales to Local Customers				Total
	<25%	25-50%	51-75%	>75%	
Northwest	2	1	2	15	20
Southwest	2	1	1	29	33
Northeast	4	4	3	21	32
Southeast	0	0	0	4	4
Central	1	3	0	13	17
Ohio	9	9	6	82	N= 106

years, boasts the largest increase in sales. Three of four firms in the southeastern (SE) domain have grown sales of at least 40%. There are, of course, a number of plausible explanations. A new business has great potential to grow small sales recorded from its genesis. But more likely is that these new firms utilize the mostmodern translucent building materials as well as employ automated production methods.

**Table 5**

Region	Percent of Sales Increase Since 2000			Total
	No Change	Decreased	Increased	
Northwest	7	2	13	22
Southwest	10	3	23	36
Northeast	7	9	16	32
Southeast	1	0	3	4
Central	4	4	9	17
Ohio	29	18	64	N= 111

## 6.6 Discussion

As the results indicate, globalization and local responses to it are complex and inherently uneven. For this reason, the Ohio greenhouse growers have adopted a multi-pronged approach towards addressing new market structures. The mixed responses and uneven knowledge about globalization and potential competition from nearby (in relative terms) Canadian firms demonstrates the contradictory nature of capital that on the one hand produces mobile investment and on the other a sense of place that creates firm inertia—a resistance to change. Or as Phelps and Raines (2003) suggest, globalization produces a tension between mobility and embeddedness—or what Harvey has called *structured coherence*. The challenge facing Ohio Greenhouses and the primary problem facing the USDA research and policy team is the degree to which Ohio Growers can restructure the region's space-economy and promote economic expansion and stability throughout the high tech agricultural sector.

A result of the inherent tension between local places and global spaces, policies, and programs, research initiatives like this one emerge to re-shape, nudge, and restructure local/regional space economies. Over the past twenty-five years, this strain has been examined from a variety of perspectives and has become an increasingly nuanced conceptual terrain. In the late-1980s and early-1990s, initial responses to globalization focused on growth coalitions that partnered capital and labor to promote local investment (Cox and Mair 1988, 1991) and the general place competition (Robinson and Sadler 1985). By the 1990s, discussions of local dependence and capital investment had been re-made under the guise of the entrepreneurial state (Eisinger 1989, 1998). In the late-1990s, the competition for local

investment benefited from a re-scaling of local politics vis-à-vis networks of association that allow localities and capital to “go global” or “go local” (Cox 1998). By the 21<sup>st</sup> century, the discussion had been influenced by the cultural turn and sought to re-interpret local politics through a cultural lens (McCann 2002; Gatrell & Reid 2002; Reese & Rosenfeld 2001; Molotch et al 2000). Concomitantly, the applied economic development community began to coalesce around the theme of industrial clusters. The cluster-approach articulated by Porter (1990) and now widely adopted by the policy community, seeks to align local resources around a single (or few) economic assets to develop a competitive advantage in the global marketplace. In many respects the applied community has now adopted Cox & Mair’s maxim of local cooperation for global competition in an attempt to maintain and expand local/regional economies.<sup>3</sup>

Despite the plethora of information on the global competition for capital investment, it is increasingly clear that the linkage between “what we know about globalization” and “what we do about ‘it’” is imprecise. That is to say, place-based policy efforts to mitigate negative externalities associated with global markets structures are often imperfect—or to use Nick Phelps’ and Andy Wood’s (2005) phrase-ology “Lost in Translation”. That is, the ability of policy makers to develop effective policy instruments is inherently limited and muted. Simultaneously, the ability of research to obtain good data on the “globalization-thing” (as one greenhouse grower referred to it) on the ground and in place is limited. For this reason, the current research—like all sectors or place-based case studies—is necessarily uneven.

Whereas some firms recognize the need to modernize, invest, and create collaborative marketing or input arrangements, the impact of globalization across Ohio has produced a high level of uncertainty with respect to the development of appropriate statewide policy regimes. Moreover, the plight of the industry is further complicated by the varying levels of firm awareness of the potential impact of Canadian floriculturalists. Consequently, restructuring the space-economy of the industry requires a more precise understanding of the issues facing growers on the ground and how these issues differ within and between regions. For example, many growers see zoning (over 30 percent) and land use regulations (approximately 60 percent) as a key determinant of firm competitiveness. Similarly, local tax policies (most notably “real” property tax)—which are controlled by local governments—are a major concern for over 80 percent of growers. Yet, the “local” zoning, regulation, and tax policies of eighty-eight Ohio counties are seldom a recognized impediment to global capital as these are “too local.” At any rate, the research policies and politics of economic development are highly variable.

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<sup>3</sup> For the purposes of clarity, we have purposefully avoided the language of neo-liberalism. While the literature on neo-liberalism informs the local politics of economic development, the practices—in place—are often too far removed (in scalar terms) from policy discussion situated at the nation-state scale.

## 6.7 Conclusion

The research indicates that globalization has influenced the market structure, sales, and firm strategies of Ohio growers. However, the specific strategies used by firms vary somewhat between regions. While the observed regional variation is less pronounced than expected, the differences provide key insights into the highly dynamic nature of local politics and the wide-ranging factors that influence individual firms. In the end, the geography of greenhouse firms sketched in this paper demonstrates that the exact linkage between local practice and global structures is imprecise. Nevertheless, the research does demonstrate the importance of reconsidering the wisdom of deploying eighty-eight individual policy regimes and the potential importance of engineering more flexible “glocal” structures.

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