

# **LEVERAGING MANUFACTURING EXCELLENCE: A SUPPLIER STRATEGY FOR WISCONSIN**

**PAUL ERICKSEN, JOEL ROGERS, JOSH WHITFORD, JONATHAN ZEITLIN\***

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## **INDUSTRIAL RESTRUCTURING: IMPLICATIONS FOR STATE DEVELOPMENT POLICY**

Over the last generation most American manufacturing has moved away from large, vertically integrated manufacturing organizations. Original Equipment Manufacturer (OEM) firms have deliberately shrunk their asset base, reduced operations to “core competencies,” and “outsourced” much of the primary processing work they had previously done in house. OEM behavior has been driven, in an increasingly competitive and volatile marketplace, both by the need to limit their exposure to shifts in the level or direction of demand for their product, and to widen their capacity to learn about new and emerging production techniques and the product strategies of rivals.

The companies that have taken on this outsourced work are generally small (fewer than 200 employees) to medium-sized (200 to 500 employees) domestic manufacturers. Nationally, such firms increased their relative share of manufacturing employment by 10% between 1986 and 1996, adding more than 800,000 jobs. These firms sell a very high proportion of their output to OEMs rather than directly to the consuming public. For example, in the key metal and plastics components sector — employing 2 million people or about 10% of American manufacturing employees — between 89 and 99% of sales are to other firms rather than directly to consumers.<sup>1</sup>

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\* Paul D. Ericksen is Manager, supplier flexibility, John Deere Worldwide Commercial and Consumer Equipment Division; Joel Rogers is the John D. MacArthur Professor of Law, Political Science, and Sociology at the University of Wisconsin-Madison, and Director of the Center on Wisconsin Strategy; Josh Whitford is a PhD candidate in the Department of Sociology, UW-Madison, and works at COWS; Jonathan Zeitlin is Professor of Sociology, Industrial Relations, and History, UW-Madison, a Senior Fellow at its Center for World Affairs and the Global Economy (WAGE), and a Faculty Associate at COWS.

<sup>1</sup> From the database of the Performance Benchmarking Service for SIC codes 308 (plastic products), 346 (forgings and stampings), 359 (pistons, valves, small motors), and 3714 (motor vehicle parts). Unfortunately, the economic census does not permit us to derive these numbers for all small-and-medium

The growing importance of suppliers in the cost structure and product strategy of OEMs has changed the basic ground rules of competitive manufacturing. The increased supplier share of the OEM's eventual Cost-Of-Goods-Sold (COGS) is one reflection of the shift. More subtle is its consequence for influencing firm behavior. In essence, the quality and "advancement" of the supply base has become increasingly determinative of the quality and advancement of the OEM itself — a fact that has enormous implications for state development efforts in manufacturing. Positively, it means that encouragement of the development of the supply base, and the quality of that base, are increasingly important points of leverage in economic development. Negatively, it means that OEMs should no longer be the exclusive, nor even necessarily the primary, focus of economic development policies aimed at industry relocation or improvement.

Taking these implications seriously suggests that many if not most state development policies to promote high end manufacturing jobs are doubly mistaken. In addition to using the wrong mix of incentives to influence the location decisions of OEMs, by focusing on OEMs exclusively they aim at an increasingly fugitive target. To clarify, a popular state economic development strategy has been to promote "local" economic development using financial and tax expenditures or other incentives to influence OEM location decisions. George Erickcek (2001) of the Upjohn Institute observes that "practitioners argue that tax and finance incentives are crucial as states battle for that next plant opening," despite the insistence of "most researchers . . . that smart economic development would avoid the use of tax incentives and state grants to lure business across state lines."<sup>2</sup> Such "quick hits," it is widely agreed, typically produce only short-term upward blips in local economic activity, in contrast to sustainable growth strategies aimed at yielding ongoing benefits over the longer-term. As more states and localities play this game, moreover, the "price" of jobs achieved through it increases. In 1980, jobs in Tennessee's new Nissan plant went for a mere \$11,000 each; by 1993, Alabama's new Mercedes plant cost the state \$168,000 per job (Bartik 1995).<sup>3</sup> Even considered only on its own terms, the strategy is barely defensible.

But while this direct monetary incentive strategy to lure OEMs was always questionable, it makes even less sense in a world where many of the jobs associated with a particular OEM plant increasingly flow to *other firms* — the external suppliers that are increasingly responsible for carrying out key production processes, and that are often located at some distance from their OEM customer. Improvements in communication, transportation, and logistics have given OEMs more latitude in sourcing globally, often—though not always—to take advantage of the dramatically lower labor costs widely available abroad. States that do not recognize this trend toward increased supplier reliance, and globalization of the supply competition, face the prospect of job erosion from OEMs and their local suppliers to smaller companies located in other states

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sized manufacturers. We have instead chosen to use a key representative group from a proprietary database to make our point. Were we to choose another group, the numbers would change little.

<sup>2</sup>See also Wolman and Spitzley (1996)

<sup>3</sup> Bartik (1995) notes that "many location and expansion decisions are unchanged by incentives. The cost of incentives to businesses whose location decisions are unchanged exceeds the taxes from businesses whose location decisions are changed. The average net governmental cost per job created by incentives is around \$4000 annually for the life of the plant."

or abroad.<sup>4</sup> In any case, the twin trends of outsourcing and streamlined logistics now imply that the location of an OEM within a state does not necessarily have as large an impact as expected on the latter's economy, further undercutting the anticipated paybacks.

By no means does this mean that geography no longer matters, still less that states cannot play an important role in economic development. Indeed, in popularizing the "cluster" approach to economic development, Harvard Business School economist Michael Porter (2000: 15) has argued that "clusters, or geographic concentrations of interconnected companies, are a striking feature of virtually every national, regional, state, and even metropolitan economy, especially in more advanced nations." Clusters involve the many entities that interlink to create regional competitiveness, crucially including suppliers of specialized inputs and infrastructure, governmental and other institutions that provide needed training and technical support, as well as trade associations and unions. Importantly, Porter (2000: 16) notes, "clusters represent a new way of thinking about national, state, and local economies, and they necessitate new roles for companies, for various levels of government, and for other institutions in enhancing competitiveness." The question remains: in what precisely, today, does an advanced manufacturing cluster consist? What gives it dynamism?

Our answer is that the quality of local suppliers makes a huge difference. The continued existence of competitive manufacturing clusters — even in high-wage areas — indicates that many OEMs recognize their competitiveness is enhanced by an ability to buy "more than just parts" from their nearby suppliers. Indeed, it is not unusual today for suppliers to provide "turnkey" concept-to-production design support to OEMs during product development, or for OEMs to seek out suppliers able to respond rapidly to changing market demand without raising costs. Developing support capabilities, above and beyond the supply of the actual "parts," is a strategy progressive suppliers use to strengthen the ties between themselves and their customers. As suppliers become integral to the strategies of their OEM customers, they are less likely to lose business on the basis of price alone and can thus more safely invest in new technology and worker training. They therefore avoid direct competition with suppliers in low-wage countries that seek to win business solely on a piece-price basis.

However, suppliers' ability to benefit from these broader industrial trends requires both that they have the capability to interact with their OEM customers in order to anticipate and understand their dramatically shifting needs, and that they have the wherewithal to provide these new value-add support services. Implementing these capabilities requires specialized knowledge and human resources. But too many small and medium-sized manufacturers are "lean and mean," priding themselves on low overheads — to the point of being perhaps more *anorexic* than lean. In other words, they staff at levels commensurate only with "getting product out the door on a daily basis." The knowledge of their workforce is consequently geared to their existing operational framework. While good at implementing incremental changes, such companies all too often lack the ability and resources to take on fundamental change, such as the transformation to flexible

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<sup>4</sup> That is, OEMs may redirect more and more of their purchasing dollars away from their "Phase I" outsource suppliers—small and medium sized domestic firms—to the new "Phase II" outsource suppliers—companies located in low labor cost areas.

manufacturing, on their own. Private consultants do exist, but small and medium sized companies generally fail to take advantage of existing service providers. The reasons vary, from mistrust of outside influences at small firms "built from the ground up" by entrepreneurs, to the high cost, to lack of interest of many consultancy groups in having to manage many separate "low fee" accounts.

If one of the essential lessons from the research on economic clusters is that firms located within them can benefit greatly from tight linkages to other local firms and surrounding institutions, such linkages do not typically just "happen." They need to be *actively encouraged* by public policy. Another lesson is that states should take advantage of their initial endowments, encouraging the development of *both* established and emerging clusters (Porter 2000). The state of Wisconsin must draw on these insights to maximize the impact of money spent on economic development. As discussed above, the state can realize tremendous benefits by leveraging OEM-supplier relationships in building the capabilities of its many small and mid size supplier firms, using the *existing* economic development infrastructure. In the remainder of this paper we will argue that there exists in the established Wisconsin industrial machinery and metal manufacturing clusters<sup>5</sup> a program that provides a model for the sort of public-private partnerships that can leverage the resources of OEMs, the Wisconsin Manufacturing Extension Partnership (WMEP) and the Wisconsin Technical College System to stimulate the continued viability of a supplier base that provided more than 100,000 jobs and an annual payroll of \$13.5 billion in 2000.<sup>6</sup>

#### **"CLUSTER POLICY" IN PRACTICE: THE WISCONSIN MANUFACTURERS' DEVELOPMENT CONSORTIUM AND OEM-LEVERAGED ECONOMIC DEVELOPMENT**

There already exists in Wisconsin a sizable cluster of supplier firms producing metal and plastic components for several key end use sectors — including lawn and garden, agricultural and construction equipment, motorcycle, machinery — and automobile. This cluster represents a significant opportunity for the state to develop the economy *without* paying out expensive incentives to a few large companies in the often-futile hope of spillover economic benefits to other local firms.

A homegrown example eloquently describes the new realities of a decentralized production regime, in which the capabilities and linkages of local suppliers are shown to be at least as important economically as the geographic presence of an OEM.

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<sup>5</sup> Drawn from the Wisconsin State Journal, February 25, 2002, which was reporting on the Cluster Mapping Project of Porter's Institute for Strategy and Competitiveness. Note that many metal manufacturers also depend on some plastic and electronic components suppliers, who are also thus members of the same cluster.

<sup>6</sup> Using a relatively conservative set of categories to get at the size of the Wisconsin supplier base and data from County Business Patterns. Specifically, this is for NAICS 3261 (plastic components); 3321 (forging and stamping); 3327 (machine shops); 3329 (other metal fab); 3339 (general purpose machinery mfg), 3363 (motor vehicle parts mfg). These compose a subset of the SICs referred to in note 1.

In 1988 a large Wisconsin-based OEM of lawn and garden equipment decided to expand by opening a second manufacturing facility. Tennessee, not Wisconsin, was selected as the site for their new facility. Over the years the Wisconsin facility had focused on its own core competencies and outsourced a significant portion of its primary manufacturing processes. The outsourcing — a negotiated process — did not mean the OEM was disinvesting. For instance, capital spending did not drop but was redirected to those aspects of the business where the OEM was more competitive. A sign of this is that although employment at the plant fluctuates due to the cyclical nature of the lawn and garden industry, as of 2000 — 10+ years after the primary outsourcing initiative — the plant employed *more* people than it had at its previous peak in 1987.

When outsourcing is focused on optimizing the value chain rather than chasing low wages, it is not a defensive strategy and emphasizes organizing a firm's strategic plan around reducing redundant support structures (both between the OEM and its suppliers and between its suppliers), rather than trying to compete in areas in which the company is not expert. In this reorganization, the OEM improved its productivity significantly and thus increased internal work in the retained parts of the production process, even as they sent more work to suppliers. Bottom line for the purposes of this example, however, is that the OEM significantly increased that portion of its COGS that was spent with its suppliers.

A result of this outsourcing was that the OEM developed a "world class" regional strategic supply base. Strategic meaning, in this case, that the suppliers comprising it were at least "ball park" competitive on price, yet also able to provide all sorts of extra "value-add" services to the OEM. Over time, the purchased content portion of the Tennessee facility's COGS stabilized at approximately 80% — meaning just 20% of its COGS is now spent "locally" in Tennessee as part of the cost of conducting operations. The OEM had available competitively priced "local" Tennessee sources, but found it difficult to match the value-add support provided by the suppliers to its Wisconsin sister factory. Consequently, fourteen years after opening, 40% of the parts purchased by the Tennessee plant are still acquired from Wisconsin-based suppliers.

The financial consequences of this continued dependence on Wisconsin suppliers should not be underestimated. Forty percent of the Tennessee facilities annual "buy," or 32% of its COGS, is purchased in Wisconsin. In short, even though the spin-off factory was located in Tennessee rather than Wisconsin, the factory spends about \$12 million more per year in this state due to Wisconsin's concentration of relevant world-class suppliers- than it does in Tennessee.

This is not an isolated case. Data kindly provided to the authors by another major Wisconsin manufacturer in the metal industries that elected to increase capacity by opening a plant in a southern state corroborates the point being made about the value of Wisconsin's "supply base legacy." This company opened the plant in 1997. Currently, purchased content is 75% of the COGS, or \$44 million annually. Of that 44 million, \$16.7 million (28.5%) is purchased from Wisconsin suppliers, greater than the \$12.6 million (25%) "created" in the southern state due to the location of the OEM's plant.

Wisconsin's concentration of metal and plastic component manufacturers — supplier firms — represents an important strength that can be exploited to avoid the bidding wars engaged in by

other states to attract large OEMs. But it should not be taken for granted, nor should it serve as an excuse to be half-hearted in either the direction of state economic development resources or attention to the existing manufacturing base. The point was made above that improvements in communications and logistics have eliminated some of the advantages of proximity, meaning that suppliers — more than ever before — must develop value-add capabilities such that they become absolutely essential to their OEM customers. It is here that Wisconsin can and should leverage the existing cluster, calling on state-based OEMs as well as the state's economic development infrastructure to ensure the continuous improvement and consequent viability of these suppliers. The state of Wisconsin can and should "guarantee" to OEMs sourcing in Wisconsin that they will have access to a world-class supply base, and reward OEM commitment to Wisconsin supply base clusters.

An excellent example of a program designed to help provide such a guarantee is provided by the existing Wisconsin Manufacturing Extension Partnership (WMEP) Supplier Training Program and the Wisconsin Manufacturers Development Consortium (WMDC). The latter was created by state-based OEMs to promote progressive supply management practices in Wisconsin. It is comprised of Ariens, CNH, Harley-Davidson, John Deere, Mercury Marine, and Trane (with Oshkosh Truck just added). Its first efforts involved developing, promoting and facilitating a low-cost training program focused on supplier continuous improvement. Consortium OEMs committed themselves to channeling their suppliers into training that would improve supplier performance and competitiveness. The training curriculum, developed in conjunction with the Wisconsin Technical College System (WCTS), was designed so that the training would be both "hands-on" and at a reasonable cost per pupil. The "glue holding the initiative together" was WMEP, a state-sponsored, non-profit organization with a mission of assisting small and medium sized Wisconsin manufacturers. WMEP supported the initiative by administering the Wisconsin program free of charge, providing low cost post-training project implementation assistance to participating suppliers as well as playing an important role in obtaining funding.

The participation of the OEMs in the consortium further increased both the likelihood that suppliers would initially participate in the training, and that the training will have direct relevance to the needs of supplier firms. If an OEM "suggests" participation in a program and offers a streamlined route to do so, most suppliers will try the program out, at least once. If the program is beneficial, suppliers will come back to a program on their own initiative. On the other hand if the program is not "value-add", no further coercion or leverage by an OEM will convince their suppliers — who are savvy businessmen — to invest more time and/or money in it.

The WMEP Supplier Training Program is a program that provides significant benefits with minimal state expenditure per supplier firm. The training in the Lean Manufacturing practices that many OEMs desire of their suppliers provides an example of this cost effectiveness. When these courses are offered by public industrial trainers they are expensive, quite often ranging from \$1500 to \$2000 per attendee for a two day class. Classes are usually held in large metropolitan areas requiring attendees to incur travel time and expense, and employers to lose productivity. However, in collaboration with WMEP and WMDC, the Wisconsin Technical College System developed a high-quality two-day Lean Manufacturing course comparable to those provided by the private industrial trainers for only \$420 per attendee per class. Supplier

firms are encouraged to participate by both WMDC consortium members and a subsidy that covers half of the tuition. The classes can be scheduled at any of the state’s technical colleges or at the manufacturer’s plant, foregoing the need for the manufacturer to absorb additional expense above and beyond one-half of the tuition. For example, for the same \$2000 that would have been required to send a single employee to a public “lean manufacturing” seminar, nine supplier employees could be trained in the comparable the WMEP Supplier Training Program course offering — numbers enough to develop a critical mass of trained employees at the small manufacturer increasing the odds that the training is likely to be actualized and implemented.

We briefly summarize the results of the program in the first three years:<sup>7</sup>

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Totals</b>
<b>Number of Classes</b>	<b>87</b>	<b>137</b>	<b>144</b>	
<b>Number of Students</b>	<b>1591</b>	<b>1586</b>	<b>2157</b>	
<b>Number of Supplier Participants</b>	<b>72</b>	<b>50</b>	<b>89</b>	
<b>Department Of Commerce/ WMEP Subsidy</b>	<b>\$236K</b>	<b>\$138K</b>	<b>\$106K</b>	<b>\$480K</b>
<b>Supplier User Fees</b>	<b>\$170K</b>	<b>\$123K</b>	<b>\$209K</b>	<b>\$503K</b>
<b>NIST Match</b>	<b>\$134K</b>	<b>\$86K</b>	<b>\$126K</b>	<b>\$347K</b>

Supplier participation maintained or grew each year, even though the supplier fees exceeded the subsidy; The program brought a \$347K match into the state from the federal government’s National Institute of Standards and Technology (NIST) through WMEP; The relationship between the participating suppliers and OEMs became even tighter; and, participating suppliers improved their capabilities and competitiveness.

In short, this program provides an important example of successful OEM-Leveraged Economic Development, and offers a good beginning to the statewide dialog on what “cluster development” ought to mean in practice. Under it interconnections between OEMs, suppliers and the state’s existing economic development infrastructure were strengthened to ensure the continued competitiveness and strategic capability of the many small and mid sized firms that form the cluster. While this example has focused on a particular initiative in a cluster associated with machinery production in Wisconsin, the model is certainly applicable in other clusters and other types of support services. WMEP has the capacity to provide the infrastructure for additional manufacturing improvement consortiums and industrial assistance, and has also demonstrated the applicability of the model in the dairy industry.

## **OUR PROPOSAL**

The details of the state’s cluster development policies will inevitably emerge from a deliberative process involving the many interested players in state government, industry, unions, and

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<sup>7</sup>A more complete description of the results and functioning of the training consortium can be found in three reports by the Center on Wisconsin Strategy, available at <http://www.cows.org/supplychain/cows.asp>.

academia. However, we do not think it premature to begin discussing the specific implications for economic development policy evolving from the restructuring of OEM-supplier relations. In formulating economic development policy, the Wisconsin Department of Commerce (DOC) must take note of the increasingly important role of smaller component manufacturers in the state economy and the potentially symbiotic relationship between them and their OEM customers, recognizing that we have the core of an important cluster right under our noses. Rather than "chasing smokestacks" by using financial incentives to try to induce large manufacturers to settle in Wisconsin, it makes more sense to ensure that those companies that *source* in Wisconsin are guaranteed levels of productivity and service that well-managed companies with a highly-skilled workforce can provide. This will also help to ensure the continued competitiveness of historic Wisconsin OEMs who often already source a large portion of their annual "buy" within the state.

Rather than lamenting Wisconsin's "old economy" status, the DOC should promote the large concentration of proficient supplier firms by marketing Wisconsin as the "Supply Base State" to OEMs both within and outside the state of Wisconsin by taking the two following concrete steps:

- First, the department should create a Deputy Secretary for Supply Chain Development who would work closely with WMEP, other state agencies, the UW System, the WTCS, associations, unions and other interested cluster "players" to develop the "rules of the game" for joint funding of collaborative OEM-supplier projects. This would not be a "giveaway" of money to OEMs, as all training and development subsidies to suppliers of cooperating OEMs would be contingent on various "OEM performance" criteria such as maintenance of the percentage of their annual "buy" made in Wisconsin.
- Second, the DOC should also require and finance the creation of a Supplier Development arm at WMEP. This arm would go beyond helping suppliers become world class in the "generic" sense, additionally assisting them to identify and create the sorts of collaborative hooks that tie suppliers to their OEM customers, thus ensuring the long-term viability of the state's manufacturing base. This would be done through reallocation of existing funding- not necessitate new monies.

We do not pretend to be able to delineate here our full vision of the scope of duties and responsibilities of these proposed new players on the state economic development scene. However, drawing on the experience, limitations, and successes of the WMDC we do have a good sense of the issues that must be tackled.

## **KEY ISSUES**

In our view, there are three issues that must be addressed in OEM-Leveraged Economic Development: deepening the impact of existing programs such as the WMDC; widening their reach; and, ensuring their efficiency and sustainability. Let's consider these in turn.

## 1) Deepening Impact:

### a) **From generic manufacturing skills to collaboration competence**

There are two aspects to enhancing suppliers' role as catalysts of a dynamic cluster. They must first have "generic" manufacturing skills, so that they can deliver quality products on time at low cost. But this is only necessary, and not sufficient. Suppliers will also benefit by learning to take on the higher value-add tasks that result from supplementing and then supplanting OEM infrastructure. Developing this "collaboration competence" is substantially more difficult than the development of generic manufacturing skills, and it is a problem with which the WMDC has only begun to grapple. But the consortium design we have outlined here, in which the state manufacturing modernization infrastructure's links to the OEMs enable it to provide customized support to supplier firms, is well-suited for tackling this task.

### b) **Participating OEMs must genuinely commit to the success of the model**

To be effective, the model requires that participating OEMs contribute their expertise and knowledge of manufacturing "best practices" to improve the ability of their suppliers to meet the ever more stringent demands of global competition without sacrificing margins or future investment. These OEMs would work with WMEP and the other various existing economic development related state institutions to ensure that suppliers are provided with a cutting-edge "curriculum of emphasis" and technical assistance services consistent with the exigencies of changing OEM strategies. Participating OEMs will be expected to commit themselves to collaborative relationships with their Wisconsin suppliers and to demonstrate effective mechanisms for monitoring supply chain performance — including the quality of relationships with suppliers — in order to promote continuous improvement and mutually beneficial outcomes needed by both parties.

### c) **The program must not support "low-road" practices**

Publicly subsidized assistance should not be provided to OEMs engaged in labor disputes, or to suppliers nominated by OEMs engaged in labor disputes, nor should it be used to help OEMs to outsource work solely to reduce wage costs. The purpose of developing a high-skill supply base is to ensure the continued presence of *good* jobs in Wisconsin. As volatile markets increasingly force firms to specialize in a few "core competences," progressive OEMs recognize that competitiveness is not built on low wage costs, but rather on the productivity, efficiency and innovative capacity of the *entire* value chain, suppliers included.

## 2) Widening Reach:

### a) **OEM-Leveraged Economic Development must not become "corporate welfare"**

The profile of most Wisconsin suppliers to OEMs fits the definition of "small" or "medium"-sized. These firms provide significant amounts of employment to the state but often lack the resources and scale to develop strong internal continuous improvement

initiatives and/or collaboration competences. The support activities provided will improve the performance of supplier firms and promote interweaving with their OEM customers, thus ensuring the continued presence of good jobs for Wisconsin workers. They will also improve the career prospects of supplier employees. Eventually, as a result, these Wisconsin suppliers will likely take on many of the product development and production support activities previously performed "in house" by the OEMs themselves. Subsidized training and industrial assistance under the program would not be available to the much larger OEMs, although they could participate in the program by paying a non-subsidized fee. The central role of WMEP in the program would further diffuse this issue since the explicit mission of that organization is to improve the competitiveness of small and medium sized Wisconsin manufacturers.

**b) The program must not uniquely benefit a single corporate entity**

A risk of OEM-Leveraged Economic Development is that the customer firm will be chiefly interested only in improving the ability of suppliers to meet their own very particular exigencies. However, an OEM consortium involving multiple firms ensures that the competences imparted to suppliers will have general valence, as does the role of WMEP as "honest broker." WMEP can ensure that the curriculum and training are sufficiently general to improve the performance of supplier firms, regardless of customer. A firm that becomes a good supplier to a particular nominating OEM will be more successful in attracting business from other sources.

**c) The program must become widely accessible to small and medium sized firms**

We have discussed a program called the "Wisconsin Manufacturing Development Consortium" as an example of cluster development policy in action. That program is important -- in the year 2000 alone, the six OEMs that founded the consortium spent \$844,067,537 with 250+ nominated suppliers located in 44 different Wisconsin counties and employing close to 50,000 people. But these companies represent just the tip of the iceberg in terms of Wisconsin suppliers. Because the very effectiveness of the model is premised on finding groups of progressive minded OEMs with similar supply bases that are also willing to work together to formulate curriculum and expectations, significant expansion of this particular consortium is probably not the best path. Rather, taking the program to scale requires stimulating the formation of similar partnerships between OEMs, suppliers, and the state economic development infrastructure. The creation of multiple consortia would also provide a natural laboratory for the different partnerships to benchmark each other's performance, in turn providing the state with a means to monitor their effectiveness.

**d) Cooperating with other states to create a "supply base region"**

Supply chains do not stop at state lines, but we do know that the historic base of component manufacturing is heavily concentrated in the Upper Midwest states of Wisconsin, Illinois, Indiana, Michigan and Ohio. There is evident scope for a future wider project of inter-state cooperation in which the MEPs of neighboring states work together to ensure the continued viability of this "supply base region," by benchmarking

each other's programs, exchanging good practices, and discouraging counterproductive "smokestack chasing".

### 3) Ensuring Efficiency and Sustainability

**a) The program should leverage the existing economic development infrastructure wherever possible**

Beyond the creation of the two small offices discussed above, this proposal depends fundamentally on the improved coordination and allocation of existing resources. WMEP is an existing organization committed to improving the competitiveness of small and medium sized Wisconsin manufacturers. It has built a statewide network of manufacturing field agents with established track records of providing high quality assessment, training and consultation services. WMEP can assist in the organization and administration of OEM-Leveraged Economic Development, as well as be a main provider of industrial assistance. The Wisconsin Technical College System has already proven that it knows how to work with manufacturing consortiums in developing and providing meaningful industrial training. There is no doubt that other existing institutions of the current economic development framework can be brought into and contribute to a WMDC type cluster structure.

**b) The program must not be perceived as competing with existing private or public training service providers.**

In the experience of the OEMs in the WMDC, most of their small and medium-sized suppliers were not purchasing training or consulting assistance from existing service providers. Hence training or assistance provided through WMEP should be regarded as augmenting available services. Third party consultants could augment public support if this were done under the aegis of the WMEP and conformed to both their fee structure and quality standards.

**c) The program should not be funded from new money, but rather from a reorientation of existing economic and workforce development monies**

This proposal does not require new state monies to finance it, above and beyond what is presently spent on economic development. Rather, we argue that there are significant *systemic* efficiency gains to be had by leveraging the OEM-supplier relationship in partnership with the existing state economic development infrastructure. Through the Department of Commerce, the state should seek to encourage the expansion of a similar model of cluster development, and should ensure that sufficient money is allocated to enable (and encourage) OEMs and suppliers to help each other to "get on the high road."

**d) Avoid "one size fits all" approaches: cluster policy should fit cluster structure.**

The Wisconsin Manufacturers' Development Consortium as a model is perhaps *directly* applicable only to clusters with a similar structure to that of industrial machinery and metal manufacturing, in which a significant portion of sales from smaller suppliers flow "up the chain" to larger customers rather than directly to consumers and there are significant gains to explicit inter-firm coordination. This does not mean that other clusters

cannot learn from the model, but its application may require modification to fit their particular circumstances. Support program must be customized to support cluster needs.

## CONCLUSION

There has of late been a lot of talk in Wisconsin about promoting industrial clusters, but the process is only now just getting started, with an effort to recruit "cluster champions" who will seek to organize other business and community leaders. This is a useful step, but we argue that the state must also be involved in bringing to scale existing successful examples of "cluster development policy." The WMDC provides a demonstration of the way in which the state economic development infrastructure could leverage the interrelationships within clusters to better harness resources. However, it is important that the state recognize that while successful examples can be — and have been — created in the interstices of the existing organization of the state development infrastructure, scaling these examples up to the point that they could be considered a centerpiece of state economic development policy will not happen without some basic changes in the way the state provides support. For cluster development to be more than a "good idea," clusters that do manage to self-organize and can credibly articulate needs to the state will only do so if they are able to expect in turn that the state will actually then *do* something.

We recognize that the Department of Commerce must respond to *all* state economic development needs, not just to manufacturing. But at the same time, manufacturing remains an essential and vital part of Wisconsin's economy, and a source of many jobs. In promoting the continued vitality of Wisconsin manufacturing, it is time to jettison the "shotgun" approach of uncoordinated economic development, trying to be all things to all people. Rather, Wisconsin should develop coherent themes to ensure that limited economic development resources have a real impact. The ongoing cluster initiative, if it gets off the ground, is a step in this direction. In the manufacturing cluster, the Department of Commerce must organize a portion of staff and resources to take account of the implications of the ongoing shift in industrial organization that has made the supply base increasingly important — in short, Wisconsin should become the "Supply Base State."

This does not require new spending, but rather a focusing, reallocation and channeling of resources, attention, and promotion to the leveraging of existing inter-firm relationships which will promote collaborative manufacturing. This will not only strengthen the competitiveness of large OEMs that remain an important source of good Wisconsin jobs, but it also provides a coherent theme for economic development that if focused can promote a high-wage, high-skill production regime from the top to the bottom of the state's manufacturing base.

Such a tangible, relatively small signal from the state has the ability to shape industry behavior that has huge economic consequences for the state and Wisconsin communities.

Absent such a signal, OEMs will be less inclined to take the "high road" by sourcing in Wisconsin and so contributing to the well being of the state. Or worse, other states or regions will take the lead in demonstrating a willingness to support the competitiveness of their

suppliers. Wisconsin should build on its existing manufacturing advantage to retain and expand quality jobs in the state.

#### REFERENCES

- Bartik, Timothy 1995:** "Economic Development Incentive Wars", *Employment Research*.
- Erickcek, George 2001:** "'Smart' Economic Development", *Employment Research*.
- Porter, Michael 2000:** "Location, Competition, and Economic Development: Local Clusters in a Global Economy", *Economic Development Quarterly* 14(1): 15-34.
- Rickert, Jeffrey, Joel Rogers, Darya Vassina, Josh Whitford and Jonathan Zeitlin 2000:** "Common Problems & Collaborative Solutions: OEM-Supplier Relationships and the Wisconsin Manufacturing Partnership's Supplier Training Consortium", Madison: Center on Wisconsin Strategy.
- Whitford, Josh, Jonathan Zeitlin and Joel Rogers 2000:** "Down the Line: Supplier Upgrading, Evolving OEM-Supplier Relations, and Directions for Future Manufacturing Modernization Policy and Research in Wisconsin", Madison: Center on Wisconsin Strategy.
- Wolman, Harold and David Spitzley 1996:** "The Politics of Local Economic Development", *Economic Development Quarterly* 10(2): 115-150.