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Developments in training and industrial policy in the Wisconsin

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Abstract

This contribution draws on developments in the American state of Wisconsin - chosen because it is an exemplar of the Fordist world to which the Emilian model has long been presented as an alternative - to provide some comparative perspective with which to understand the continued evolution of, and difficulties faced by, metal-manufacturing heavy regions in an open global economy. In this Fordist world, the same fragmentation of markets and increase in global competition that thrust the Emilian model into international limelight led also to tumultuous and painful changes in historic manufacturing regions in the United States with, on the one hand, huge declines in manufacturing employment, but on the other, a fundamental restructuring premised on a more decentralized organization of production. There have also been efforts at the state and local level to develop solutions to many of the same problems faced by Emilian firms today: the need to ensure the ongoing training of current workers; the qualification of new workers; and ensuring that manufacturing firms in the region be able to maintain global standards of technology, quality, and
innovation.

Indice

1. Introduction: Why we might think that Emilia-Romagna could learn something from what happens in Wisconsin (USA)

International fame came to the "Emilian model" in 1982 with the publication Sebastiano Brusco's article of that name in the *Cambridge Journal of Economics*, showing the region's decentralized and socially embedded production model to be a viable alternative to the classic "Fordist" production of the vertically integrated large firm. Over the last twenty years, the model has remained in the public eye, noted not only for the rootedness of the many firms in a local context, but also for the innovativeness of the regional state in developing policies to help the local productive system adjust to a changing world.

Today, as the project *Officina Emilia* seeks to understand the future of the a model of decentralized production that faces still today important challenges, as globalization forces firms to keep pace with rapid changes in both productive and organizational technologies, it is opportune to again cast an eye towards that same Fordist world to which the Emilian model has long been presented as an alternative – for that Fordist world has by no means stood still these twenty years.

To this end, I draw on developments in the American state of Wisconsin to provide some comparative perspective with which to understand the continued evolution of, and difficulties faced by, metal-manufacturing heavy regions in today's open global economy. Wisconsin serves this purpose well, for, while it differs fundamentally from the Emilian model on one key dimension – it is very much *not* organized along the lines of industrial district model but is instead a part of the historic American manufacturing "rust belt," the locus of classic Fordist mass-production – it is otherwise similar in a variety of ways. The two regions are of more or less similar size, with Wisconsin's 5.4 million inhabitants just 1.5 million more than the 4 million in Emilia-Romagna, and, more importantly, are both regions that depend considerably more heavily on manufacturing employment than do their nations as wholes: in Wisconsin, 19.5% of the workforce is employed in manufacturing, relative to about 12% nationally; in Emilia-Romagna, the respective numbers are about 36% and 32%. Perhaps more importantly, both regions specialize in metalworking industries, with a relative concentration of 46% in Emilia-Romagna, and of 31% in Wisconsin.[1] And finally and perhaps most importantly, as will be made clear in this essay, Wisconsin, like Emilia-Romagna, has garnered some renown as a center of policy innovation in the face of the many challenges faced by high-wage manufacturing-dependent regions in a global economy, forced by the constant competition from lower-wage producers to maintain the competencies required in higher-value-added markets.[2]

[1] Source for U.S. number is the 2002 Covered Employment and Wage data from the American Bureau of Labor Statistics. The Italian numbers are drawn from Rinaldi (2002), using national figures from 1999; the "relative concentration" is of engineering industries, and is from 1996. As an aside, the similarities go still further. Both regions even have a relative specialization in, among other things, agricultural equipment, and a relative concentration of metalworking employment in a particular geographic part of the state – Emilia in the one case, the eastern part of Wisconsin in the other.

[2] The American system of course devolves more policy autonomy to states than is the case in Italy, but, not only have *regioni* and *comuni* long been important for the industrial district model, but there it is more

Since others in the project *Officina Emilia* devote their contributions specifically to Modena and Emilia-Romagna, in this short and synthetic essay, I will thus speak primarily to developments in and challenges faced by the metalworking industry in the United States and some of the institutional responses that have been developed in Wisconsin to meet these challenges, and largely leave it to others to decide what lessons they may or may not bear for the Emilia-Romagna of today.

The remainder of the essay is divided into three sections. Section II describes broad changes in the organization of American manufacturing in the last 20 years; Section III then turns to some of the challenges and problems that now face manufacturing regions and the firms in them in the American context; and Section IV tells of innovative efforts at the state and local level to develop associational solutions to some of these challenges, specifically to the need to ensure the ongoing training of current workers, the qualification of new workers, and that manufacturing firms in the region be able to maintain global standards of technology, quality, and innovation.

2. Deindustrialization, deurbanization, decentralization, and deverticalization

The model to which the industrial district model has long been counter-posed – Fordist mass production – has changed dramatically in the last twenty-five years. While some of the details underlying the causes of the change are still in dispute, what is clear is that the very development that thrust the Emilian model into the international limelight – the fragmentation of once-predictable mass markets – absolutely rocked the Fordist order, with dramatic effects on corporate structure and inter- and intra-firm divisions of labor. Original Equipment Manufacturers (OEMs) – the large firms who sell products on the final market – in key end-user industries like automobiles transportation equipment, industrial, farm and construction machinery, and electrical appliances were forced to produce a greater variety of more customized products with shifting technology mixes. They also had years of relative stability in core technologies (steel and mechanical engineering) shaken by the incorporation into their production processes of technologies developed in other sectors, such as new materials and electronics.

These changes – whose effects were especially pronounced in old-line manufacturing states like Wisconsin – led some to predict an eventual virtual disappearance of American manufacturing, to be replaced on the one side by low-wage production and on the other by more flexible producers. And in fact, the 1980s were a period of dramatic job losses in American manufacturing: the sector had shed three million jobs in two steep declines, 1979-1982, and 1989-1992 – but that still left *18 million* employed (see Figure 1).

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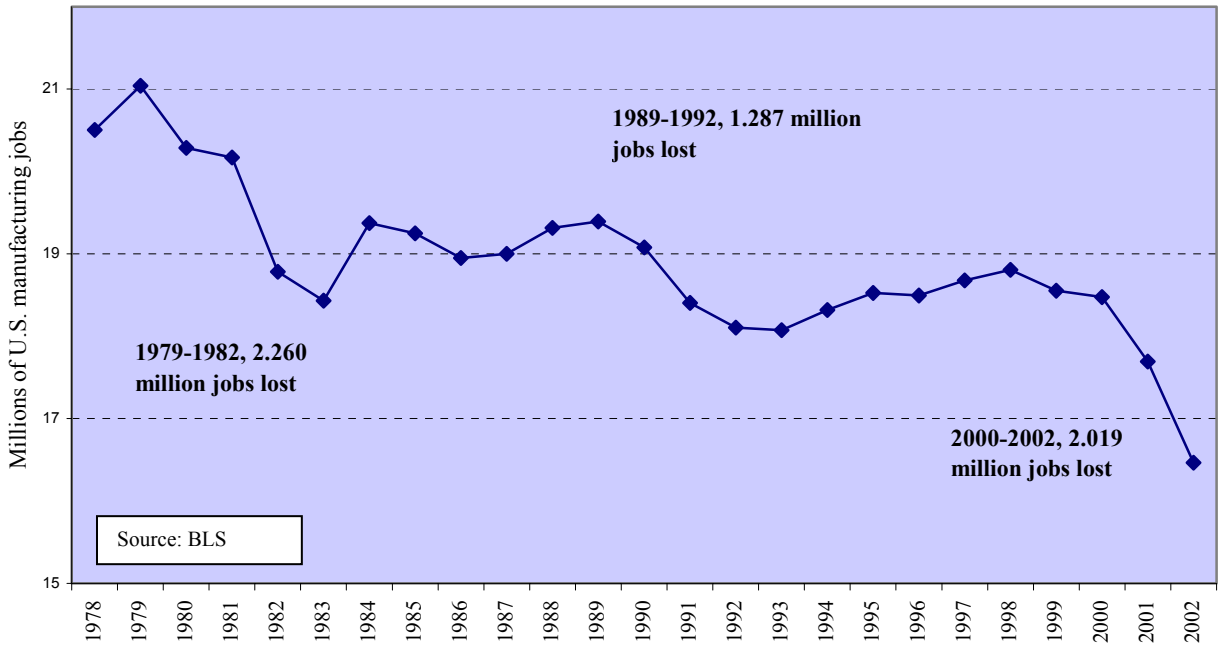
or less a consensus view that the local and regional level in Italy have over time become more – not less – important in policymaking for the manufacturing economy.

Figure 1: Manufacturing employment in the United States



But what is not well enough understood, even in the United States, about these first two periods of job loss shown in the figure is that they were much more than simply a partial deindustrialization: they were in fact characterized by other even more significant patterns. The American *deindustrialization* of the 1980s would be better described as a *deunionization*, a *deurbanization*, and a relative shift of employment to smaller firms, or *decentralization.* Of the 3 million manufacturing jobs lost between 1979 and 1992, five in six were union, two in three were in just 16 central cities in the Northeast and Midwest, and three in four were in plants employing more than 500 workers (including, prominently, Milwaukee, the largest city in Wisconsin).[3] At the same time, there was growth in non-union, ex-urban and small-firm manufacturing. Between 1980 and 1990, non-union manufacturing employment increased by 1.3 million jobs, against a loss of 2.5 million union manufacturing jobs. And the reduction of three million jobs in large plants (>500 employees) was substantially offset by the growth in sub-500 employee plants of two million jobs (Luria 2000).

In short, what occurred across American manufacturing was a fundamental restructuring of the manufacturing economy centered around the relative *deverticalization* of production, as many large firms actively engaged the new environment by retrenching to their so-called core competencies in design, marketing and assembly, electing to subcontract ("outsource") other activities to a series of smaller suppliers that now do much of the "real" manufacturing of components.

And this remains the case even today, even as the U.S. faces another period of profound difficulty and the most sustained job losses in manufacturing since the second

[3] These central cities– which employed as of 1979 less than 30% of manufacturing workers (BEA regional accounts data) – are: Akron; Allentown-Bethlehem; Baltimore City; Buffalo; Chicago-Gary-Hammond; Cincinnati; Cleveland City; Detroit-Flint; Indianapolis; Milwaukee; New York City-Newark-Jersey City; Philadelphia; Pittsburgh City; Providence-Warwick; St. Louis; Toledo.

world war. That is, although declines in employment have been sharply concentrated in three periods, one at the beginning of each decade, with a relative stability in-between (see again Figure1), initial indications are that there are striking differences between the current recession and the previous two, with the pain spread much more evenly this time around. Unlike previous periods, rural areas have been hit even harder than have cities.[4] And at the state level, for example, between 1990-1992 there was also within-country redistribution, with twelve states gaining manufacturing jobs, while between 2000-2002 every state has lost manufacturing jobs.

American manufacturing today occurs in a post-outsourcing[5] "new old economy" that is not simply a less urban, less unionized, and less concentrated version of the Fordist "old old economy" of large vertically integrated manufacturers. These changes have been profound inside manufacturing firms – flexible manufacturing practices and the introduction of team production have changed the skills required, and the weakening of internal job ladders and the subcontracting of entry-level positions have made initial firm attachment and career advancement more difficult – as well as in how production is organized across firms. The outsourcing of important portions of production has meant that American supplier companies are asked both to better coordinate production with their customers and also to make significantly more complex goods.

3. Negotiating a changed world

This painful process stabilized towards the beginning of the 1990s, and American manufacturing employment began to recover. But firms, workers, and regions found themselves in a very different world from that they had faced at the beginning of the crisis in the 1970s.

On one side, there was ample awareness of the need to integrate at least some of the flexible manufacturing practices and technologies that had allowed the economies "in vogue" at the time – especially Japan, but also Germany and Central and Northeastern Italy – to retain relatively strong "high-road" manufacturing sectors premised on innovation and quality production. But at the same time, there are at least two very serious sets of barriers to the building of such a model in the United States. One relates to issues of workforce preparation, the other to the different manners in which production can be decentralized.

Regarding the former of these barriers, if manufacturing firms are to compete in the higher-value-added markets that privilege innovation – which demand new products, technologies, and work processes – they generally must have broadly skilled

[4] See *Manufacturing and Technology News*, May 2, 2003, as well as Wilkerson (2001).

[5] It is worth clarifying my usage of the term "outsourcing," as the distinction between outsourcing and subcontracting can be both loaded and confusing. I use the term as it is generally used in a manufacturing context, to refer to the initial process of subcontracting particular operations, so long as the intent is that the change be long-term. Strictly speaking something is "outsourced" only when the outsourcer retains the ability to bring it back in without too much trouble, but in manufacturing in the last two decades operations have for the most part moved in one direction only in a substantial and long-term shift of productive capacity and responsibilities from large vertically integrated OEMs to supplier firms. By "post-outsourcing" I mean that much of the reorganization, at least as regards the movement of operations out of large OEMs, has already occurred.

workforces, requiring in turn a revamping of the training system. There were, Parker and Rogers (1999: 336) write, the beginnings in the 1990s of a reform of the American labor market system – including the integration of labor market services into "one-stop" jobs centers, efforts to make community colleges more responsive to both students and firms, and the formation of the "school-to-work" program modeled to some degree on German apprenticeships – but these efforts lacked "organized, collective involvement of those on the 'demand' side of the labor market." There are, they continue, a series of barriers that leave the US labor market to "approximate a 'low wage, low-skill" equilibrium." Because of an initial skill mismatch and the ability to pay low wages, firms have an incentive to choose a work organization and product strategy that requires few worker skills and thus do not "demand or promote broad and continuous skill upgrading among their frontline workforce." Specifically, there is an important cooperation problem in the private investment in training: either firms train workers in such a narrow way that the new skills have little general valence on the labor market – meaning almost by definition relatively inflexible skills – or they risk having their trained workers "poached" by other employers.

The second barrier to a "high-road" manufacturing reflects that outsourcing – the decentralization of production – can reflect very different underlying logics. As it is explained by Walter Powell (1990: 302), manufacturing firms face a choice of obtaining parts almost purely on the basis of price, in a "campaign to slash labor costs, [to] reduce employment levels, and [to] limit the power of unions," or of seeking long-term collaborative relationships with suppliers, focused on security and quality production from skilled and innovative suppliers. The former model is a return to the market, the latter more consistent with at least idealized versions of functional flexibility. And here, there is once again an obvious problem: In the historic U.S. context dominated by arms-length relationships and capacity subcontracting, in which many small firms functioned only as low-overhead shops batch producing OEM-designed parts, suppliers often have substantial difficulties adjusting to the new realities. As OEMs devolve greater responsibilities to these suppliers, a frequent problem, in the words of a purchasing manager at one Wisconsin OEM, is that "the relationship has traditionally been build-to-spec[ification], don't ask any questions, if it doesn't work, that's our problem, kind of relationship. I think that there's probably a history of that that works against this, ... and a lot of those manufacturers haven't developed that expertise" (Whitford 2003: 115). And from suppliers' perspective, there are great risks to investing in higher-level competencies unless they are sure that a majority of their customers will pay for such competencies.[6]

[6] Unsurprisingly, the many suppliers that are increasingly responsible for production are on average less productive than their OEM customers, producing less value-added per direct worker – and the productivity gap has grown significantly since the 1980s. They tend to employ a lower ratio of managers to production workers, and therefore have fewer professional staff to develop strategic plans to re-organize work in efficient ways that reduce cycle times and cut costs while improving output. These enterprises spend less annually on capital upgrades and new equipment, instead adjusting labor costs to regulate production. They are less likely to be unionized, and invest less in their workforce. These features, together with low capital intensity, mean that less is spent annually on training, jobs tend to require fewer skills, and wages on the whole are lower. (Helper and Sako 1995; Helper and Sako 1998; Luria 1996a; Luria 1996b; Luria 2000). Note, however, that while these averages matter the small firm sector is not monolithic and there is high variance in the productivity and wages of sub-500 employee manufacturing firms, and that the distribution is very right-skewed – so much so that the top ten percent of small firms in the database are twice as productive and pay twice as much as the median shop (Luria 2002).

Of course, these are both variants of classic coordination problems that potentially bedevil *any* political economy – supply must meet demand and vice versa – but, as people familiar with the Emilian centers of *servizi reali* or the German apprenticeship system know, they can be solved in multiple ways. As Rinaldi (2000: 213) explains regarding the real service centers, the goal was to help small supplier firms keep up with organizational and technological change, but the point to underline was that, for example, *Citer* "did not intervene at the level of the single firm," but instead worked with firms and associations to learn and coordinate needs, ultimately leaving it to the firms themselves to translate that information into actions. Likewise, the ability of the German vocational training system to produce a highly-qualified and flexible labor force owes much, Parker and Rogers (1999: 339) explain, to the dense associations that allow "skills standard setting and training enforcement to be a publicly supported and ratified, but essentially privately driven process."

Unfortunately, in the U.S. "liberal market economy" in which secondary associations – particularly of employers, but increasingly also of workers – are weak and in any case not well integrated with the public sector in the governance of the economy, the above-cited problems are famously vexing as there are few mechanisms to permit the monitoring and sanctioning of those firms that undermine collective efforts to push firms toward high-skill strategies. The upshot for the American political economy is that although low-skill strategies may lower living standards for the majority, be particularly at risk to competition from lower-wage areas, and perhaps not feasible in the longer term, in the here and now they are often desirable for those who in fact decide how production is to be organized. Those who attempt strategies requiring significant training and premised also on skilled supplier firms face the risk of training workers only to see them poached, and of having their suppliers unwilling to invest in the needed competencies.[7]

There is, however, one other factor about the U.S. that is perhaps too often overlooked, which is that the combination of a federal system *and* the lack of a strong national system of interest intermediation either among workers or employers also leaves room for experimentation at the regional level, especially since there has been an active devolution of powers (particularly in training) in recent years.

In perhaps no other place are all of these issues and concerns as important and in play as they are in Wisconsin and especially in and around Milwaukee. Wisconsin's largest city and a historic center of metal manufacturing lost about *one third* of its durable manufacturing jobs between 1979 and 1987, and saw, Parker and Rogers (2001: 259-60) write, that "the more advanced firms encountered a skills shortage associated with the adoption of new products, technologies, and work processes" when they sought to recover from the crisis. Some manufacturers simply responded to these difficulties with an explicit low-skill strategy, often relocating to low-wage areas in ex-urban areas and in the American south, but there were others who sought instead to "reposition themselves for more advanced production and worked with their unions to upgrade the skills of an age-compressed workforce." And, consistent with Wisconsin's reputation as a relatively innovative state in terms of policymaking, there have been innovative efforts to stimulate associational initiatives to support firms trying to take "high-road" production strategies premised on a skilled workforce, using also a logic of

[7] Parker and Rogers (1999: 329) note that although the American economy did very well in the 1990s in job creation, but did much less well in "improving job quality, or [in] the distribution of the benefits of economic cooperation," resulting in wage stagnation and substantial increases in inequality.

decentralization premised on the flexible delivery of high-quality parts rather than simply chasing low wages.

In the next section, I will describe these associational initiatives, writing first about the larger and more important Wisconsin Regional Training Partnership (WRTP) for training and workforce issues, and then describing the smaller but suggestive Wisconsin Manufacturers' Development Consortium for issues of supplier modernization.

4. Halting steps towards the creation of institutional support for high-road production in Wisconsin

IV.1. The WRTP: sectoral training and hopes for progressive workforce preparation in the United States

Towards the end of the profound crisis of the 1980s, it was apparent to some firms, unions and people active in the policy world that some sort of revamping of the regional training system was necessary if the manufacturing-dependent greater Milwaukee area was to retain a substantial core of high-paying manufacturing jobs.

And in this light, armed with a strong ties to organized labor and the support of some elements of business, academics at a research center at the University of Wisconsin (the Center on Wisconsin Strategy, or COWS) proposed – and organized – the formation of as jointly governed consortium of employers and unions, based on the idea of getting a critical mass of firms to agree upon some common standards and to commit to a baseline training expenditures.[8] This solution, though it does not eliminate the poaching of trained workers, ensures an adequate supply of skilled workers so that a firm that has been raided can reasonably hope to "cross-raid" someone else.

The organization, centered in metal manufacturing and dubbed the Wisconsin Regional Training Partnership, was founded in 1992 with around a dozen large union shops and their unions, covering around 10,000 workers, and has since grown to include more than 100 employers (mostly, though not exclusively, unionized) with some 65,000 workers.

Bernhardt, Dresser and Rogers (2001-2002: 116) of the Center on Wisconsin Strategy (which continues to provide logistical support to the WRTP) explain that at the core of the WRTP is employer agreement on a sort of "code of industrial conduct" (though not a formalized one) with four elements. Employers agree:

1. To train frontline workers more than in the past, to share curricula, and to benchmark against each other.
2. To commit to modernizing operations and to preparing the future workforce.
3. To permit workers a say in firm governance, especially in areas of training and human capital investment, but also in the purchase of new equipment and changes in the production system.

[8] In the interests of full disclosure, the author of this contribution to *Officina Emilia* was himself employed as an office aide at the Center on Wisconsin Strategy from 1991-1992, and then again as a researcher from 996-1997 and from 2000-2003, and has worked directly not only with the WRTP itself, but also the academics cited repeatedly in this section (esp. Joel Rogers).

4. To support workers seeking career advancement with training support and to pay rewards for skill advancement.

But of course, ensuring the commitment of multiple firms is only a part of the story. If firms are to take a "high-road" strategy, they often need concrete logistical support. This is provided by the WRTP itself, through a series of partnerships that coordinate the delivery of training and modernization services. Specifically, the WRTP, governed by a board of equal numbers of industry and labor representatives, has at its core a series of working groups in which employer and union representatives try to identify common problems and best practices, to develop pilot projects, and to implement them.

In each of the areas in which the WRTP has been particularly active – pushing modernization and new investment, the training of incumbent workers, and the finding and training of new workers – the organization's strategy is not so much to provide direct services, but rather to serve as an intermediary, working to coordinate the many agencies and service providers that do exist in the U.S. but that too rarely work effectively as a single system. For example, in modernization the WRTP is in alliance with the Wisconsin Manufacturing Extension Partnership (the WMEP), a part of a federal program to provide modernization assistance to small and mid-size firms, and pushes smaller union shops to undertake internal reorganizations with the aid of consultants from the WMEP. In the training of incumbent workers, the centerpiece of the program has been to help member firms set up on-site learning centers, which are then run by a combination of personnel from the local technical college and people internal to the firm. The technical college ensures that the skills provided to workers have general valence, while in-house personnel can make sure they fit specific needs on the shopfloor. And, finally, to find and train new workers, the WRTP set up a sister organization – the Milwaukee Jobs Initiative – to work with community groups in the inner city to identify people in need of jobs, to provide them with training in essential manufacturing skills, and to connect them to jobs in member firms.

A key to the WRTP's ability to play this role is that it can draw on a strong and regionally focused organized labor presence, something that is not, at least at present, very common in the in the United States, but it has proved extremely useful in the Wisconsin case.[9] Organized labor not only has a very strong vested interest in employers undertaking strategies that require the capital investment and worker skills that can in turn support high wages, but also brings knowledge of what works and does not in the day to day productive reality. The successful integration of employers, unions, elements of the state training and modernization infrastructure, and community groups is what allows the WRTP to improve labor market coordination in manufacturing in and around Milwaukee. Rather than simply training workers under the assumption that a job will be found for forthcoming – the usual "uncoordinated" approach in the United States – what the WRTP tries to do is to query employers as what jobs *could* exist were there skilled workers to fill them, pushes employers to invest to create such jobs, and then ensures that skills are produced to fill them. This, as Bernhardt, Dresser and Rogers (2001-2002) write, is a "level of coordination that does not happen on its own" but that requires an "organization, such as the WRTP, with strong ties" to all the relevant communities.

[9] However, with the WRTP as a key example, the national AFL-CIO is now actively pushing for the replication of such "high-road partnerships."

IV.2. The Wisconsin Manufacturers' Development Consortium: Coordinating decentralized production

As production has been decentralized, the production systems of OEMs and their suppliers are increasingly linked, meaning that the ability of OEMs to compete in high-end markets depends also on an effective supply base. Furthermore, since so many jobs are now in supplier firms, how much skilled labor a regional manufacturing system demands depends to no small degree on whether or not supplier firms are themselves implementing flexible manufacturing systems (which depends in turn on whether or not customers demand higher-order production from suppliers). In short, this is another area in which there may be a rationale for a role of the public in helping firms to coordinate strategies. It is also another area in which the history of American OEMs asking little of their suppliers risks leaving firms trapped in a low-quality, low-skill, low-wage equilibrium.

There have been efforts in this direction, which is no surprise given the substantial theoretical and popular literature arguing that a sustainable and generalized high-wage, high-productivity manufacturing economy requires that small supplier firms take on high value-adding operations, develop new products, and train their workers, it is no surprise that American public authorities at various territorial levels are experimenting with policies intended to ease the transition to a more decentralized production regime – often under the rhetoric of "cluster" development popularized by Michael Porter (see especially Porter 1998; 2000).[10]

However, beyond just a policy focus on sectors that already have "critical mass," there is wide variation in what this actually means on the ground. Besides the simple provision of an educational infrastructure, such as the technical or community college system, there are a variety of modes through which government resources are used to upgrade the base of small and medium sized suppliers.

For example, the "Industrial Training Program" in the state of Illinois disburses approximately twelve million dollars directly to manufacturing firms for training. Approximately 15% of this money goes to a competitive grant program in which individual firms apply for money, while the remainder goes to "multi-company" programs that supply training to many different manufacturing firms at 50% subsidized rates. The multi-company training programs can be administered either "horizontally" – grants are given to associations that subsidize training for their members, often at local community colleges or from private training providers – or "vertically" – with money provided to single OEMs who then use it to subsidize relatively unrestricted training programs for their own suppliers. Note, however, that both of these modes are aimed entirely at the improvement of supplier performance per se – a useful but certainly not sufficient condition for successful collaboration.

The best-known federal program is the Manufacturing Extension Partnership (MEP) housed in the National Institute of Standards and Technology (NIST). Although a few industrial extension programs began as early as the 1950s, the Clinton administration made them into an important part of US industrial policy by providing substantial – though partial – federal funding for a series of locally-based not-for-profit manufacturing modernization centers. This led to the formation of many new MEPs in the 1990s, and currently all 50 states are served. As Robert Turner's (1999: 10)

[10] States that have consciously formed cluster initiatives include Arizona, California, Connecticut, Illinois, Massachusetts, Minnesota, New York, North Carolina, Ohio, New Mexico, and Oregon – with many others in formation. See Porter (2000), Waits (2000), and Lashinsky (1992).

dissertation exploring three different strategies of manufacturing extension explains, there is variation in models – he compares the business consultancy, associative, and entrepreneurial state models – but "the overwhelming majority of state centers" simply provide a discounted business consultancy by selling off-the-shelf technologies at subsidized rates on a first-come-first-serve basis, with a "persistent theme across all three programs" he studied being a "difficulty in promoting increased cooperation among businesses and public sector programs."[11] In short, while the MEP can be a useful program, it does not normally aim to coordinate strategy between OEMs and suppliers to push both onto a high-road path.

However, Turner (1999: 218-9, 222) stresses as well the extremely decentralized nature of the MEP: "states and localities" are given "the responsibility for designing centers to address regional issues" resulting in what is – at its best – an extremely flexible program that reflects the "trappings of a new division of labor between the national government and states regarding economic development" by providing ample space for variant strategies and local experimentation.

And there is a very suggestive program in Wisconsin, called the Wisconsin Manufacturers' Development Consortium (WMDC), that is a result of just such experimentation, as it involves the Wisconsin MEP, which combines with the state's technical college system to represent the "public" in this public-private effort to upgrade the Wisconsin supply base and to sustain collaboration between OEMs and suppliers.

Originally known as the Wisconsin Supplier Training Consortium, the WMDC began as a joint effort between WMEP and John Deere. A Deere supplier development manager on the WMEP board of directors saw the growing importance of suppliers to the company's own manufacturing activities, as well as the growing impact of OEM/supplier relations on Wisconsin's economy. He joined with the executive director of WMEP to recruit representatives from several other OEMs to form a consortium of OEMs to coordinate training for supplier firms. The group is currently made up of John Deere, Harley-Davidson, Oshkosh Truck, Kohler, Case-New Holland, Trane, and Ariens. The partners also drew support from the state technical college system, with which WMEP already had a close relationship. It was inaugurated in summer 1998, aided by a $500,000 allocation from the state budget that subsidized the classes so that small- and medium-sized enterprise (SME) participants could get focused high-quality training at a 50% discount. Today, in the wake of a severe state fiscal crisis, this subsidy from the state of Wisconsin has been cut back, though there are still federal subsidies and WMEP still does provide the training at a discounted rate.

The consortium provides suppliers with a problem-centered training program, primarily focused on the concrete goal of improving performance in lead and cycle time reduction, delivery, product quality, and cost. It also aims to improve supplier viability more generally by enhancing supplier/OEM business relationships, increasing understanding of OEM performance expectations and perhaps helping suppliers to gain additional customers.

It does this by leveraging the development resources of the MEP and the coordinating capacity of multiple OEMs, generating efficiencies across firms (at the level of the consortium) and stimulating collaborative linkages. It does this by constructing vertical, horizontal and cross-cutting linkages among firms. These linkages

[11] His "associative" model is the Wisconsin Regional Training Partnership, discussed above. The "difficulty in promoting" business/public sector cooperation in the WRTP case refers to struggles over regional training standards.

– with the WMEP as a credible independent third party and, perhaps multiple, OEMs – provide assurances to suppliers that the technical assistance and organizational models being pushed are broadly viable. This contrasts the reticence that many suppliers feel when it comes to working with a single customer or consultant.[12] With OEM supplier development and the WMEP on the same page, suppliers have more confidence that they're getting state-of-the-art manufacturing principles. Furthermore, the WMEP holds the position of "honest broker," to ensure that the costs and benefits are shared out fairly among the participants, and to discourage opportunism by firms who often compete for the same customers and suppliers.

Another important aspect of the WMDC is that is able to both encourage and depend on cooperation between OEMs, which helps to generate *strategic alignment* by giving suppliers a signal of their customers' credible commitment to a collaborative purchasing model. As it was explained by the owner of a firm supplying two of the founding OEMs:

> The idea that two of my major customers would form a consortium with other people to help train their supply base, … I saw that as 'we're in a whole different world now.' This is no longer 'we do three quotes and send it to the lowest bidder and every year we go out and rebid it … and if things slow up at all, we cancel everybody's orders and we make it in our own shop.'

Finally, the network of multiple linkages can also provide *external support for internal reform initiatives*. OEMs are often factionalized, with one of the most significant cleavages running between those who think that in today's volatile markets, companies must accept a short-term focus on the bottom line (or quarterly profits) and those who think that real flexibility depends on longer-term relationships that give concrete options down the road. Those in the latter camp, which we might call "collaborationists," believe that their companies should risk something today to ensure the long-term health of their suppliers, encouraging them to develop the capacities to provide "more than just parts."

The WMDC can be a useful support to these collaborationist factions, who can use the training program to encourage suppliers to develop new competencies that in turn will help them to develop joint innovations, making more credible the position of these factions within the member OEMs. This incentive to high-road practices can generate a positive feedback mechanism: the more suppliers with collaborative competencies, the more collaborationist factions in OEMs are able to achieve bottom-line results.

IV.3. What the WRTP and the WMDC mean for American capitalism

By mobilizing actors to find collaborative solutions to common problems in an explicitly coordinated manner that brings the interested parties to the table, the WMDC has in common with the WRTP that it runs counter to the more typical "live free or die" approach to economic governance typical of the American liberal market economy. While this is a feature that has caused many commentators (see, for example, Hall and Soskice 2001) to suggest that American firms are unlikely to be competitive in the high quality markets in metal manufacturing precisely because of the inability to build the necessary coordinating institutions. The demonstrated effectiveness of actors to build

[12] See Mesquita and Brush (2001).

such institutions – that is, to learn lessons and to adapt ideas borrowed from more "coordinated" systems in Europe – does show that no system should be written off as unable to change.

But at the same time, this also does not mean that it has not been, and will not be, difficult for both of these models.

For the WMDC, the prolonged downturn in American in manufacturing that began in 2000 has two likely – and opposite – effects on firm strategy as regards their interests in consortial supplier development. One possible consequence is that OEMs seeing a profit squeeze will utilize short-term positional bargaining to salvage profits now, which increases price pressures on suppliers. Likewise, in response to tough times, supplier firms may simply "hunker down" to weather the storm, investing less in people they are not sure they will be able to keep. This threatens the consortium, which will quickly die without a commitment from both the OEM partners and their suppliers to working together to improve operations for gains down the line. But there is also an opposite pressure. A recession can lead the OEMs to look more closely at their own organizations to identify areas where they can reduce their own fixed costs, which can make reliance on external public resources more attractive, even if this requires sharing strategic control of those resources with other firms and with state agencies.

More importantly, however, the greatest threat to the consortium's survival comes not from a lack of business coordination but from the state fiscal crisis. Wisconsin has an enormous budget crisis, needing to cut $3.2 billion from a two-year budget. As a result, though not without considerable resistance and lobbying from both the governing OEMs and many participating suppliers, even the relatively small state outlay to WMEP – $ 1.5 million – was drastically cut to just $100,000 for fiscal 2004.[13] Nevertheless, both WMEP and the consortium are still in operation, and the longer-term funding picture remains the subject of considerable public debate.[14]

Likewise, in and around the WRTP, there is a recognition that its creation was very much a conscious political struggle, a "resistible" rise of a workforce intermediary, as Rogers and Dresser (2003: 284-5) write, that was build against an "infrastructure supporting, informing, and extending these local efforts [that] is fairly weak."[15] Nevertheless, they are emphatic that workforce intermediaries like the WRTP and other

[13] WMEP is still eligible to receive up to $3 million in federal government funds through NIST in fiscal 2004 as a 33% match, not only for state grants but also for other revenues such as fees paid by suppliers for services. State and federal support together accounted for 25% of WMEP's budget in fiscal 2002. Most of these public funds were used to cover WMEP's general operating expenses rather than to subsidize the supplier training program directly. Information based on emails from a member of the WMEP board, Feb. and Sept. 2003; Rick Barrett, "Technical Aid for State's Industries is Endorsed", *Milwaukee Journal Sentinel* (online edition), September 5, 2003.

[14] The new Democratic governor, Jim Doyle, has proposed to spend $10 million on efforts to help manufacturing firms boost productivity, training, and technology as part of his "Grow Wisconsin" initiative. See John Schmid and Denis Chaptman, " Doyle Unveils $40 Million Plan to Restore State's Economy", *Milwaukee Journal Sentinel* (online edition), September 11, 2003. Some of this proposed state funding is aimed at supporting supplier development, and would likely be channeled through WMEP.

[15] Dresser and Rogers (2003: 284) write that this infrastructure has grown, in part because "in some instances, the organizations themselves have helped build it." Likewise Osterman's (2003: 251) discussion of the Industrial Areas Foundation describes not only the changing structure of the labor market as creating space for institution building, but recognizes that filling that space was not easy and owed much to particular actors – especially Saul Alinsky – who created this "organization of organizations."

example from around the U.S. *can* form the basis for systemic change – a "new sort of 'American model' in training" – by building on the incipient provision

> at the regional level [of] what is not provided nationally – a genuine infrastructure of industry and union collaboration that both drives industries toward more demanding skill demands and provides the flow of information, and assurances against freeriding, needed to meet them. Given pressures for devolution, moreover, there is no reason why such efforts could not be more effectively integrated into public labor-market administration.

In short, they argue, what is done and not done in fact is fundamentally a *political* question. There *are* real options, even in the Fordist world.

5. Concluding remarks

I began this discussion by suggesting that as the project *Officina Emilia* seeks to understand the future of an Emilian model, it might be opportune to also cast an eye towards developments in the Fordist world to which the Emilian model has long been presented as an alternative. What one sees is that the same fragmentation of markets and increase in global competition that thrust the Emilian model into international limelight led also to tumultuous and painful changes in historic manufacturing regions in the United States with, on the one hand, huge declines in manufacturing employment, but on the other, a fundamental restructuring premised on a more decentralized organization of production.

It is thus perhaps no surprise – given this partial convergence of productive organization – that in some areas and political entrepreneurs have looked also to perhaps learn from the Emilian model, from the German model, and from the Japanese model. And there has been, I have argued, at least enough success to show that there are possibilities for such coordinated production is possible in the United States. But whether or not will in fact succeed is a very open question, requiring perhaps greater political will than is likely to be found at a time of profound state fiscal crises.

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