BABIES, BATHWATER, AND AMERICAN MANUFACTURING: WHAT'S WORTH SAVING AND HOW

Dan Luria & Joel Rogers

Absent a revolution in U.S. trade policy, high-wage/low-value-added American manufacturing will soon be dead. The millions of jobs it still provides will be driven to extinction by more efficient or less labor-friendly domestic production, or by low-cost alternatives abroad. Even areas of production near the heart of American manufacturing machine — for example, parts for North American auto assembly, still 80-97 percent domestically sourced — are now vulnerable. As GM North America CFO Ray Allen commented a few weeks ago, announcing that GM was about to shift a large portion of its parts buy to China, "I think every automaker is looking at low-cost countries. [It's only a matter of] who's going to execute it the best."

Apart from sympathy for the workers displaced or downgraded by such restructuring, is this disappearance of manufacturing jobs — 2.5 million since late1998 alone — worth caring about? And, if we care, is there anything that can be done about it?

There is no consensus answer to these questions in American public policy debate. Nor can there be, since that debate is typically about different things not recognized as different. Public discussion tends to lump all manufacturing together. It does not distinguish among manufacturing subsectors that are more or less critical to national economic well-being, or those jobs more or less capable of being sustained and grown in competitive markets. Thus, for example, technology-intensive specialized manufacturing is treated as the same as commodity production and assembly, and jobs every bit as bad as the worst the service sector has to offer are honored in the same breath as high-pay, safe, environmentally sound, super-competitive ones.

The failure to distinguish such "good" manufacturing (typically, "advanced" or "high-end," and certainly "modern" in their use of equipment, marked by relatively high investments in training and new technology, responsible for some portions of design as well as production, and dedicated to continuous process improvement and product innovation) from "bad" manufacturing (typically low-paying, unsafe, environmentally degrading, and marked by little investment in training or new technology) not only breeds confusion. It invites the risk that those manufacturing jobs that should be uncontroversially worth saving and promoting will be neglected, or actually hurt, by a public policy that does not see them as importantly different from those that are not.

Based on years of research and practice in the manufacturing sector, we believe we are close to answers on what distinguishes "good" manufacturing jobs from "bad," and what is needed to sustain the former in the United States. We also believe that such jobs are worth saving and growing; indeed that a national effort in that direction is recommended. We believe finally that the large and widely distributed losses in manufacturing over the past few years create natural audience for this message — that relevant business, labor, and political leaderships may finally be prepared to hear a sensible discussion on the future of American manufacturing, and to do something with its conclusions.[1]

[1] Researchers at MMTC and COWS have demonstrated that manufacturing output and job losses in the 1979-83 and 1989-93 period were felt almost exclusively in cities and in unionized plants. The declines in employment (1998-date) and output (2000-date) have been almost the same, in percentage terms, in suburban and rural Republican-represented U.S. Congressional districts as in America's central cities.

Here we seek support to start that discussion in earnest. The projected effort has four components: (1) a discrete extension of current data and its analysis to answer a few key remaining questions important to the framing of policy; (2) outreach and education on these and related research findings[2] among business, labor, and elected decision-makers; (3) the formulation of model policy guidelines for promoting high-end manufacturing for federal and state government and the private sector; and (4) demonstration projects testing the application of those guidelines in several manufacturing arenas.

Defining our terms and general perspective on the "worth" of manufacturing

Before outlining these components, we define our terms and general perspective on the "worth" of manufacturing. By "good" manufacturing, we mean something best characterized in its combined result: high and rising productivity; attractive enough ROI to generate new investment; and above-average wages and benefits (controlling for worker education). There are different recipes or mixes of production technique to get these results. There are also common ingredients running through those recipes. But not only is there a high degree of variation across manufacturing firms on how they score on these different dimensions of performance, but also in the degree to which those scores are linked to one another. High productivity is generally a necessary condition for high wages, for example, but only loosely linked to their provision. High wages and high productivity can, but do not always, go together with high profits. Absent extraneous changes in labor or capital market conditions, then, achieving the desired combination of results will require some conscious choice in firm strategy or public policy incentives.

This granted, we believe that "good" manufacturing jobs combining requisite productivity, ROI, and wages and benefits are worth keeping and growing for several reasons. They continue to provide an entry to the middle class for millions of non-college-educated workers, including a disproportionate share of non-white workers. They anchor high-end service jobs, especially in cities, and thus provide a multiplier on community prosperity and general living standards. They are a motor for the demand and application of new technology, upon which living standards finally depend. And they are essential to achieving balance, or at the least less *im*balance, in U.S. trade with the rest of the world.

These observations do not amount to a declaration of "manufacturing centrism" — the ideology that manufacturing jobs are intrinsically more important or worthy than non-manufacturing ones, that making something you can drop on your foot is more noble than teaching or caring for the sick or even creating new markets for financial risk and securitization. They do amount to the claim that it would be unwise for the U.S. to let its advanced manufacturing base disappear. We should strive to keep at least enough manufacturing jobs to meet our basic domestic and security needs, and to service our trade with the rest of the world. We can do that while adequately compensating the workers who help satisfy these needs, and providing a return to the capital that invests in meeting them. Achieving these results under today's competitive conditions means

[2] The proposed effort partly builds on but nowhere implicates research conducted by the Advanced Manufacturing Project (AMP) consortium of which we are members. AMP, with participating researchers from the University of Wisconsin-Madison, Case Western Reserve University, the Michigan Manufacturing Technology Center, the University of Chicago, and – more recently – the Working for America Institute, has been studying restructuring in the component manufacturing sector over the past two years. AMP is supported principally by the Sloan Foundation, with additional funding provided by the Wisconsin Manufacturing Extension Partnership and the Ford Foundation.

aiming at more technology- and skill-intensive manufacturing, capable of continuous product and process innovation and product distinctiveness — not low-end, low-skill commodity production. This requires efforts, but is eminently achievable, and should be done.

THE CONCEPT

The basic idea is to kick-start a serious national policy discussion on the future of American manufacturing — where "serious" means making the distinctions among manufacturing subsectors and firms and their welfare results that are neglected in present debate — to suggest the sorts of policies and policy reform needed if that debate is taken in earnest, and to test those suggestions. In effect, we propose moving a certain policy agenda. Here is our sense of what needs to get done.

Research

Past research has powerfully extended our understanding of the competitive pressures now felt throughout American manufacturing, and the strategies adopted by both large OEMs ("original equipment manufacturers") and their supplying firms in response to them and each other. Summarizing severely, OEMs have moved to insulate themselves from market volatility and price competition by outsourcing a larger share of their production; concentrating on what they determine to be "core competencies"; and extracting repeated price concessions from their suppliers throughout. The result for those suppliers, which provide the largest share of manufacturing employment and 60-80 percent of the final value of OEM sales, are decidedly mixed. On the one hand, in meeting the more demanding orders of OEMs, they have increased their own technical and production capacities, their appeal to a wider customer base, and even their bargaining leverage with some OEMs. At the same time, the enormous market power of the OEMs, and the availability of almost limitless low-wage competitors at home and abroad, have shaved their margins to the point of non-sustainability. Large sections of the auto supply industry, for example (the topic of our quote in the first paragraph of this paper), have been profitless for years. Most important, even many suppliers that have assumed a substantive role vis-à-vis their key customers report a pattern of customer disloyalty that goes beyond pricing to include a threat to desert onshore suppliers and even their own onshore production presence.[3]

Understanding these dynamics, and whatever conclusions they bear for policy, is commonly confused by heavily stylized (if not purely anecdotal) evidence on manufacturing productivity growth, its variation across firms, and — of particular importance in an internationalized world — its source either from lower input costs or higher sales per employee. Simply buying cheaper inputs would not ordinarily be thought of as an advance in productivity, but it shows up as such, because "value-added" is calculated as sales minus outside purchases. (Government data attempt to control for changes in prices for both sales and purchases, but not for the mix of purchases between domestic and imported.)

Untangling this issue requires the answer to four questions:

1. What's really happening to *manufacturing productivity*, when both input and output prices are understood?
2. What part of *manufacturing job loss* is due to productivity versus falling domestic value-added?

After which it would be useful additionally to know:

[3] The characterization of AMP survey findings in this brief paper is that of the authors alone.

3. What part of the change in domestic value-added is due to the *behavior of US-based MNCs*?

And, finally:

4. What is the *true distribution* of productivity and job quality across industries, firm sizes, and regions?

With these answers in hand, it becomes possible to design industry- or sector-specific policies, which may vary by region, to improve productivity and improve the distribution of the benefits of productivity advance. Without these answers, which we today lack, it's impossible to do these things right.

Outreach and Education

The story we tell of manufacturing in the U.S. is not well known, and the conclusions for policy — if intelligent, different for advanced firms than others — are not generally appreciated by the domestic firms and workers public policy should serve. Business and trade associations tend naturally to construct their policy agendas from positions on which all members agree, accepting differences in strength of agreement, rather than from segmented pursuit of the interests of what are, after all, commonly competing firms. Comparatively speaking, and owing to the relatively weakness of labor in the U.S., there is also an unnatural degree of class cohesion in the American business community, which further encourages suppression of differences in interest within it.

Thus, even though the interests of high-productivity firms paying high wages and making large investments in training and new equipment are quite different from low-productivity firms paying low wages and making little if any investment in human or physical capital, they behave politically as if their interests were the same.

So long as this state of affairs continues, it will be impossible to get adequate business support for policies promoting high-end manufacturers, at least to the extent those policies pose any risk to their low-end colleagues. But just such policies are essential if more advanced, and would-be advanced, manufacturing is to have any serious chance of getting itself established as the norm, not the exception, in U.S. manufacturing. Higher wage, benefit, environmental, product quality, and other standards are needed to clear out (*not* save) low-wage competition; provide clearer rewards for more advanced production; and guard against defectors from advanced collaborative arrangements once established.

Through a variety of means — talks, conferences, email briefs and newsletters, free media, etc. — we want to make this argument common currency among business, labor, and government elites. What they do with this perspective is not our business, but we want to make sure it gets out there.

Model Policy

Assume for a moment that this education and outreach, and the disturbing rate of job loss in manufacturing, generates substantial policy demand for a "strategy" for advanced manufacturing. What should it be? Remarkably or not, very little thought has been given to this question. We have given it some thought, and would like to give it more. Our basic answer is two-fold: (1) to raise standards in ways that select for high-end firms and against low-end ones; and (2) to provide direct technical support and other assistance to firms making the transition to the high end. Both of these things can be done at the state and federal level, though comparative

experience, and our own, suggest that the second is indeed best provided locally, or regionally, within or across clusters of states. We propose the useful exercise of taking these intuitions and wrestling them to the ground — based on best evidence of effective means, and with attention to potentially contrary law — in model statutory language, administrative rule, business convention, or collective bargaining agreement. This would be a useful tool for advocates of high-end manufacturing, and help clarify debate around it.

Demonstration Projects

Finally, we would like to design, seed, and monitor a few "demonstration projects" on desired practice, chosen to vary in intensity and scope. Here are three examples of the sorts of projects we have in mind.

First, in one or a few state NIST MEP center(s), change policy only to support high-end or would-be high-end firms, or direct attention in a sustained way at producing such firms. For example, we know that a typical MEP "treatment" of a firm yields an almost immediate 5 percent increase in its productivity, and we know from recent MMTC work that something on the order of a 12-percent increase in average productivity is what is needed to "catch" the Chinese competition now decimating component manufacturing in the Midwest. An attractive project might be to concentrate MEP resources to produce that 12% hike in a large number of firms in the region — in effect, a demonstration of scaled targeting of high-end assistance and its possible effects — and then document the consequences.

Second, at the level of state policy, make an effort to systematically expand business consortia (such as, in Wisconsin, the WRTP and WMDC) dedicated to supplier upgrading, modernization, and the like. For fiscally strapped states, this can be done relatively cheaply, and has proven positive effects on performance — but it is also something that doesn't just happen, it needs to be aimed at to be achieved, either through business or labor leadership, or state government leadership. A useful demonstration project, perhaps involving more than one contiguous state, would be to explicitly map the consortia needed in manufacturing, and take them to scale. Promising staff ties among new governors in a number of fiscally stressed Great Lakes states may make this a propitious moment to move such a demonstration.

Third, and nationally, move one federally supported industry campaign specifically aimed at high-end production, perhaps in the diffusion of information technology. Some such programs already exist, of course. Our difference would be to diffuse the technology specifically in firms otherwise willing to pursue the desired public objectives — less to test the effects of such diffusion itself than the potential strength of such inducements in changing other firm behavior.