The Myth of American Productivity by Michael Mandel

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Politicians say we have the most productive workers in the world. They don't know what they're talking about.

By Michael Mandel

In 1939, when John Steinbeck completed *The Grapes of Wrath*—a heart-wrenching tale of a family of sharecroppers forced out of their home during the Depression— roughly one-quarter of the U.S. population still lived on farms. Today, family farms are increasingly rare, and less than 2 percent of employed Americans work in agriculture.

But rather than viewing the decline of farming jobs as a tragedy, economists almost invariably count agriculture as a shining American success—the triumph of productivity. And why not? A handful of farmers using GPS-equipped combines and sophisticated moisture sensors can grow far more food than the population of an entire rural county in 1939. Food has become so plentiful and cheap in the United States that it has been blamed for the increase in obesity. And agricultural products have become one of the country's chief exports, totaling more than $115 billion in 2010.

As the story of the American economy is usually told, the shrinkage of agricultural employment was a tough but essential part of the march toward higher incomes and a better standard of living. What's more, this example has been cited time and again to explain subsequent upheavals in employment. In 2003, N. Greg Mankiw, a Harvard economist who then headed President George W. Bush's Council of Economic Advisers (CEA), told a Washington audience that the more recent fall in manufacturing jobs was an "inescapable" consequence of rapid productivity growth: "The long-term trends that we have recently seen in manufacturing mirror what we saw in agriculture a couple of generations ago."

In a 2006 speech, University of Chicago professor Austan Goolsbee made the same point, explaining why the long-term decline in manufacturing jobs didn't worry him. "Employment in the [manufacturing] sector and the share of spending in the sector get smaller and smaller almost as proof of how productive it has become," said

Goolsbee, then a top economic advisor to Senator Barack Obama and more recently CEA head under President Obama. “It is exactly the same process that agriculture went through.”

Numerous statistics would appear to confirm Mankiw and Goolsbee’s analogy. Manufacturing employment in the U.S. is on a long downward trend, with no sign of a rebound. Despite the supposed recovery, companies are still announcing factory shutdowns and consolidations. One example: in Fort Smith, Arkansas, a Whirlpool refrigerator plant currently employing about 1,000 workers will close its doors by the middle of 2012.

Nevertheless, these ever-fewer workers seem to be producing ever-larger quantities of manufactured goods, such as electronics, aircraft, medical equipment, and chemicals. According to the Bureau of Economic Analysis, American manufacturing output was 16 percent higher in 2010 than it was a decade earlier, despite the devastating impact of the Great Recession and the virtual disappearance of some manufacturing industries. Combined with the sharp plunge in employment, the BEA statistics imply that manufacturing productivity rose by a stunning 74 percent from 2000 to 2010. Companies that distribute and sell these goods, like Walmart and Best Buy, also seem to be enjoying sizable efficiency gains. According to government data, wholesale and retail trade companies have seen a 20 percent increase in productivity since 2000, as information technology and the Internet enables them to deliver more goods with fewer people.

These statistics undergird one of the chief messages of reassurance that has been repeated throughout the economic crisis: yes, factories may be closing, and whole domestic industries may be withering left and right, but Americans should take heart because we have the “most productive” workers in the world. This refrain has been voiced to the American people by everyone from Barack Obama to Mitt Romney, from Richard Trumka, president of the AFL-CIO, to Tom Donohue, head of the U.S. Chamber of Commerce.

Whenever leaders and economists cite this reported strength in productivity—and the historical precedent of agriculture—they are advancing a certain basic theory of our current situation. The U.S. economy is fundamentally sound, the theory goes, and could create broad prosperity if only Washington made some targeted policy interventions. (The nature of the proposed quick fix—stimulus money or tax cuts—varies according to party affiliation.) After all, if the analogy to agriculture holds true, then rising productivity in the manufacturing and distributive sectors should eventually pay off in higher real wages and higher living standards for Americans. Today’s high poverty and unemployment rates will only be part of a painful but temporary period of disruption, as exports of manufactured goods increase and unemployed workers are gradually absorbed into other sectors of the economy, just as an entire generation of farmworkers moved north and west to work in factories.

There are two big problems with this theory, however. One is that the analogy between agriculture and manufacturing is profoundly misleading. The gains in agricultural productivity that transformed this country in the twentieth century are fundamentally different from the gains in manufacturing and distributive productivity we are seeing today. The other, related problem is that our bullish measures of productivity suffer from an enormous statistical blind spot. Rather than wait for rising productivity to save the day—and relying on economic policies that are essentially complacent—the U.S. needs to adopt drastic measures if it wants to keep living standards from falling.

Consider, for a moment, what a farmer has to do to improve the yield of a corn or wheat field in Kansas or Nebraska. Machinery has to be purchased to plant and harvest the crops. Pesticides and herbicides have to be applied to fight bugs and weeds. Irrigation has to be used appropriately to make sure the crops mature as desired.

In a very real sense, agricultural productivity is intrinsically rooted in American soil. Yes, the tractor might be imported from Japan. But a farmer cannot plant crops in Iowa and then outsource the harvesting to Vietnam. Pesticides have to be sprayed on American bugs, and crops have to be irrigated with American water. Most of the value created by agriculture is made in America.

By contrast, most manufactured goods these days are the product of global supply chains, which may include multiple countries and border crossings. Your smartphone, for example, is assembled from components that were manufactured all over the world. On a less high-tech note, the cedar hangers that organically keep your suits and dresses free of pests may be made of wood grown in the U.S., shipped to China for manufacture, and then shipped back to the U.S. again.

Given the dominance of global supply chains, manufacturers and distributers both have two very different strategies available to them for cutting costs. On the one hand, they can invest in raising productivity in their domestic operations. A midwestern auto factory can rearrange its assembly line to produce more cars with fewer workers; a retailer can shift more sales to its online division; a real estate agency can invest in contact-management software to help fewer brokers manage more potential buyers and sellers.

Alternatively, companies can cut costs by seeking out cheaper suppliers around the world—to use the business school term, they can engage in global supply chain management. A U.S.-based computer company can lower its costs by moving its customer call center from South Dakota to India, Walmart can shift its clothing purchases from a Chinese shirt manufacturer to a cheaper supplier in Vietnam. Apple can find a cheaper offshore supplier for its iPhone display screen.

But here's the rub: both of these corporate strategies— domestic productivity improvements and global supply chain management—show up as productivity gains in U.S. economic records. When federal statisticians calculate the nation's economic output, what they are actually measuring is domestic "value added"—the dollar value of all sales minus the dollar value of all imports. "Productivity" is then calculated by dividing the quantity of value added by the number of American workers. American workers, however, often have little to do with the gains in productivity attributed to them. For instance, if Company A saves $250,000 simply by switching from a Japanese sprocket supplier to a much cheaper Chinese sprocket supplier, that change shows up as an increase in American productivity—just as if the company had saved $250,000 by making its warehouse operation in Chicago more efficient.

It's important to note that the government *does* make an effort to control for these changes in import prices— for example, the switch from the Japanese to the Chinese sprocket—when measuring national economic output. In fact, the Bureau of Labor Statistics is assigned to this very job. But for a variety of reasons, including underfunding and some important omissions in data collection, the BLS does a poor job tracking the drops in prices that result when companies shift from a supplier in one country to a cheaper one in another. This is what's known as "import price bias." If Company A's sprockets start pouring into U.S. shipyards from China rather than from Japan, the BLS has neither the manpower nor the procedures to know that these two imports are really the same part, albeit with a lower price and a different point of origin.

Import price bias also shows up in a big way when companies shift from domestic suppliers to cheaper foreign suppliers. Consider refrigerators, for example, like the ones made in the Whirlpool plant mentioned earlier. Refrigerator imports from lower-cost countries such as Mexico, Korea, and China now total almost $4 billion annually, up 19 percent since 2007. Clearly these growing imports are displacing domestic production and employment— but how much? Today the official statistics treat imported refrigerators as if they cost the same as U.S.-made refrigerators, so that $4 billion of imports is assumed to displace $4 billion of domestic production. But a more accurate measure would take into account the lower cost of Chinese- or Mexican-made appliances, so that $4 billion of imports might really displace $5 billion, $6 billion, or even $8 billion of domestic production. Unfortunately, the BLS does not track the relative price of imported and domestic fridges—or almost any other product, for that matter. Scale this problem up by a factor of a million, and you begin to see how pervasive import price bias really is.

These statistical deficiencies amount to an incapacitating handicap for anyone trying to understand the truth about American productivity. Because economically, there's an enormous difference between "domestic" productivity growth and what Susan Houseman of the Upjohn Institute and I have called "supply chain" productivity growth. Over the long run, gains in domestic productivity should translate into higher living standards and more jobs for U.S. workers. Economic theory—and common sense—tells you that companies will want to hire more of the types of workers who are contributing to higher profits. If the profits are coming from improved factory productivity in Dearborn, High Point, or Mountain View, then the company will want to hire more good production workers at those plants.

"Supply chain" productivity doesn't work the same way. If companies reconfigure themselves to better scour the globe for the lowest-priced goods and services, then their essential personnel are multilingual business school graduates with the ability to parachute into Shanghai or Bangalore and negotiate the best deals with suppliers,

logistics experts who can keep the goods flowing, marketers to sell the goods, and software engineers to program the computers that communicate with the suppliers. In other words, the bulk of the company's own workers essentially perform a creative or coordinating function, rather than a manufacturing one. These workers might be in the U.S., or they might be spread around the world.

The model of success in this vein is Apple, which has no manufacturing facilities. Instead, it maintains enormous profit margins through innovative product development and tough negotiating with suppliers. One thing feeds the other: because Apple brings the promise of huge markets and trendsetting products, it has enormous clout to bargain with suppliers for lower prices.

But not many companies are quite so successful at this game. Any number of American firms have offshored production and even product development to foreign suppliers, only to then see those same suppliers become lowcost rivals. One company that fell into that trap is Hewlett- Packard, which has reduced real spending on R&D since the mid-2000s, focusing instead on supply chain management and outsourcing its computer production and development. The resulting lack of innovation put HP at a bargaining disadvantage relative to its suppliers. That's why HP's latest tablet computer couldn't undercut Apple, and why HP is talking about getting rid of its computer business. Without innovation, a supply chain strategy fails over time.

It's not clear, then, that an economy-wide shift from a focus on domestic production to one on consumption, trading, and organization will lead to a stable arrangement between the United States and the global economy. Why should the rest of the world consent to being organized by us if we aren't producing—and if we're borrowing to support our consumption? In the end, organizing may not pay enough. Yet much of the reported gain in U.S. production seems to be coming from gains in supply chain productivity, rather than domestic productivity. We don't know for sure about this. As we've said, the official data doesn't reveal much about whether U.S. companies have moved their operations offshore or kept them at home; depending on the circumstances, both can show up as productivity gains. But the manufacturing sector and the economy as a whole certainly *feel* like they are being hollowed out. And indeed, some recent research suggests that the size of the mismeasurement problem is huge. To cite just one example, a 2011 paper by Houseman and three coauthors from the Federal Reserve found that non-high-tech manufacturing growth from 1997 to 2007 may have been overestimated by as much as one-half because of import price bias. Similarly, ongoing research from a new policy brief from the Progressive Policy Institute shows that the official statistics have significantly overstated GDP and productivity growth since 2007—implying that the recovery has been even weaker than we thought.

Still, it's important to realize that not all productivity gains are illusory. The truth is, there are still plenty of U.S. companies that find it more cost-effective to boost their domestic productivity by investing in new equipment and training workers. With better statistics, we might even be able to identify which industries have the highest prevalence of these "domestically productive" companies—and thus identify the sectors where American workers are actually competitive on the global stage (or could be made competitive with a little investment). But as it is, we are left with anecdotal glimpses of the competitive landscape.

In an unusual coincidence, for example, the Hanover, New Hampshire, region has long been home to two of the world's leading manufacturers of plasma torches and cutting systems—powerful tools that are used, for instance, to cut plate steel for trucks and bridges. This is a global market, where much of the high-end demand comes from infrastructure investment in developing countries such as China. But the two companies have gone about competing in dramatically different ways. One company, Hypertherm, has focused on boosting productivity at its New Hampshire facilities. By investing in new equipment and continually improving its workflow, it has been able to remain competitive with overseas rivals without significant offshoring. "We looked at doing some manufacturing in China," says Evan Smith, the general manager of Hypertherm. "It didn't make sense for us."

Instead, Hypertherm—which ships two-thirds of its output overseas—is actually expanding facilities in New Hampshire. The company is constructing a new building just down the road from its current headquarters to help house some of its 1,000 employees.

Meanwhile, just a few miles away, their rival company Thermal Dynamics recently announced plans to move its New Hampshire plasma system manufacturing operations to Texas and Mexico by December 2011. According to

the company's press release, the move, affecting about 100 workers, was "critical to our ability to better serve our customers and grow our business profitably." Thermal Dynamics's parent company, St. Louis-based Thermadyne, declined to comment further.

Presumably Thermal Dynamics's shift of plasma torch production to Mexico will cut costs and improve the company's profit margins, even as the number of domestic workers falls. If the assembled plasma cutting systems are shipped to the U.S. before going to customers, the government's economic statistics will register a gain in manufacturing productivity.

Nevertheless, from the perspective of the New Hampshire and U.S. economies, there's a big difference between Hypertherm's and Thermal Dynamics's approach. By focusing on domestic productivity growth, Hypertherm encourages more hiring in New Hampshire and more exports from the U.S. By relying more on supply chain productivity gains, Thermal Dynamics's products may become more globally competitive, but the main beneficiaries may not be U.S. workers.

How, then, can we become a nation where it makes economic sense for more companies to behave like Hypertherm and invest and create jobs in the U.S.? As is often the case, the first thing we need is a better understanding of the problem. We honestly don't have a clue about what's really going on in the U.S. economy. What's worse, we *think* we do.

Often, despite all the signs that the blood is draining out of our economy, and particularly our manufacturing sector our highly problematic national productivity statistics can make it seem like we already live in a nation full of Hypertherms—companies honing their operations at home. Journalists and politicians can easily enough find examples of companies that are genuinely increasing efficiency of their U.S. operations, and generalize these examples to the entire economy. A mostly upbeat April 2011 Associated Press article, for example, attributed the weak job market to rising productivity, claiming that "U.S. workers have become so productive that it's harder for anyone without a job to get one." The proof? National productivity statistics, plus one example of a plastics company that was able to produce a part with fewer people. The growth of global supply chains was not mentioned.

Both President Obama and his Republican rivals seem to have fallen prey to the same illusion. "We still have the best workers and farmers, entrepreneurs and businesses, students and scientists," Obama repeated, with variations, as he cruised through Minnesota, Iowa, and Illinois this past summer. Or as Mitt Romney told Ohio factory workers in July 2011, "Our workers are the most productive in the world—so trade ought to be good for us."

On the campaign trail, these words represent not just a flattering slogan but an economic diagnosis and policy prescription. According to the theory implicit in this kind of talk, the U.S. has no fundamental long-term competitiveness problem: American companies have honed their competitiveness by shaking off unnecessary workers and low-value businesses, and will be ready to hire once the global economy recovers.

In the minds of Obama and his team, the big problem is insufficient demand, and the appropriate short-term policy response is fiscal and monetary stimulus. In the long term, the best thing Washington can do is enact policies that prepare American workers and small businesses to take advantage of those opportunities and continue touting the virtues of free trade and future growth. On the other side of the aisle, the Republican presidential candidates and congressional leaders are identifying high taxes and pervasive regulations as the main causes of our economic problems. From this perspective, if only government would get out of the way by cutting taxes and reducing regulations, the private sector would bring prosperity to everyone through high productivity growth.

Both sides suffer from the same fundamental blindness. To shake the American political debate out of this bipartisan rut, the first order of business is to run an industry-by-industry "competitiveness audit," as the Progressive Policy Institute has proposed in a recent policy brief. Such an audit would compare the price of selected imported goods and services and their domestic equivalents. This would allow us to identify which U.S. industries are in the lead, which ones are close to being competitive, and which ones are out of the running. It would require some extra spending for the Bureau of Labor Statistics, whose able but chronically underfunded personnel would be the natural candidates to carry out the audit, but it wouldn't cost that much to run a pilot

program on selected goods and services. Armed with this information, government statisticians would finally be able to distinguish between domestic productivity gains—which lower the cost of U.S. production—and supply chain productivity gains—which take advantage of declines in the cost of overseas production.

Better data could fundamentally alter the policy debate over how to rescue the U.S. economy. For example, economists and journalists repeatedly say that the U.S. economy won't recover and jobs won't come back until the consumer starts spending again. That seems to imply that the U.S. needs another massive jolt of fiscal stimulus directed toward pumping up consumers. But which producers would really benefit from such a jolt? If U.S. manufacturers have cut back on factory jobs because of higher domestic productivity, then boosting consumer demand will indeed cause the factories to hire back American workers. But if cutbacks in manufacturing employment have come from increases in supply chain productivity, then giving Americans more money to spend on clothing and consumer electronics will simply boost employment in other countries.

Instead, an effective domestic job creation strategy would need to target the production side of the economy. That means focusing on areas that stand to improve the productive capacity of the country, such as better infrastructure and regulations that would make it more attractive for businesses to invest and hire in the U.S.

In addition, the information generated by the competitiveness audit would assist in targeting economic development funds in a way that gives us the biggest bang for the buck. Rather than wasting billions, we could identify which domestic industries are close to being competitive with foreign goods and services, and invest in those. These borderline cases would benefit the most from targeted help to "recapture" domestic market share from imports and gain global market share via exports.

On a broader scale, we need to understand our true productivity and competitiveness in order to generate the political will to make the big changes that are needed to prosper. Politicians love to tell voters that American workers are the most productive in the world, even as, in the next minute, they play to anxieties about runaway federal spending on health care, the excess of government debt, the rise of China, and the decline of the U.S. education system. The more politicians and economists emphasize the high productivity of U.S. workers, in other words, the more they weaken their own cases for entitlement reform, tax reform, education reform, or any other action that would dramatically change our current trajectory.

Indeed, our misleadingly high productivity figures help enable a whole political culture of confusion and complacency. Only after we accept that the official figures have led us astray can we hold a true political debate about what type of economy we want to have. Do we want to keep proceeding along our current course, borrowing hundreds of billions of dollars each year to temporarily prop up consumption? Or do we want to rededicate ourselves to becoming a production economy once more, which requires cutting back on consumption and boosting investment in physical, human, and knowledge capital? What voters really need to hear is the truth. Manufacturing today is not like agriculture yesterday. A happy ending is possible, but it is not inevitable.

Michael Mandel is the chief economic strategist at the Progressive Policy Institute and the founder of Visible Economy LLC, a video news and education company.