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Imports From Manufacturers That Have Outsourced Production Will No Longer Be Considered Imports

U.S. federal agencies involved in economic data are on the verge of a major and transformative change in the way they classify companies that have outsourced their U.S. production to foreign manufacturing contractors.

The change could radically increase U.S. production statistics by classifying "factoryless goods producers" as domestic manufacturers. Companies like Apple will no longer be considered "wholesale traders," and their sales would be counted as U.S. production, even though none of their manufacturing is in the United States.

BY RICHARD McCORMACK

Imports by American companies that outsource their production to foreign manufacturers also would no longer be counted as imports, thereby impacting the balance of U.S. international trade accounts.

The idea is for the federal government to determine how much production has been offshored and to pinpoint the number of American companies that are linked to manufacturing, even though they don't make the products they design and sell.

The changes now being finalized by the U.S. government would be implemented in the 2017 North America Industry Classification System when factoryless goods producers will be classified as U.S. producers. The new classification system of manufacturers would introduce "significant discontinuity" to a wide range of statistics gathered by the government, say those involved.

There is disagreement on whether it is even viable to place factoryless goods producers in the category of domestic manufacturing. Adds one economic statistician: "If you start counting foreign-produced goods as U.S. production you could be introducing a huge misinterpretation of the manufacturing [data] series."

Potentially a dozen major government statistical series could be impacted by the change. Industrial production, international accounts, national income product accounts, regional accounts, producer price indexes, international prices and industrial productivity are just some of the statistical series that will undergo significant discontinuity.

"For the purpose of balance of payments, goods that are manufactured overseas for U.S. companies are not going to be considered imports any more, they are going to be just U.S. production," notes William Powers of the International Trade Commission.

Classifying U.S. factoryless goods producers that have outsourced their production overseas as U.S. "manufacturers" has been discussed for more than a decade. Economic statisticians have been perplexed by how to categorize companies that no longer manufacture the products they design. It doesn't make sense, they say, to classify Apple as a "wholesale trader."

The change in classification means that companies like Apple, Nike, Cisco, fabless semiconductor companies, and, for instance, the hundreds of American companies that design apparel and garments and have them manufactured in Bangladesh, will also be classified as manufacturers, again, with their imports measured as U.S. output.

The U.S. Economic Classification Policy Committee (ECPC), an obscure group proposing the change, believes that imports and exports "should be recorded on a strict change of ownership basis," it says. If there is no change of ownership of a product being imported, then it

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Latest Electronics Roadmap Says Cloud Computing Is The Biggest Game-Changer

Cloud computing that can be accessed by millions of individual digital devices is the most important technological advance in the electronics industry over the past year with the potential "to create the most significant paradigm shifts, bringing about major changes to business models in the next four to five years," according to the latest electronics technology roadmap from iNEMI, formerly known as the National Electronics Manufacturing Initiative. The development of cloud computing has led to the creation of huge data centers that are consuming vast amounts of electricity (up to 50 megawatts). These centers and the companies that run them are operating "more like utilities in terms of power usage and heat removal," according to the latest iNEMI roadmap. But these centers also mean that the entire data communications system "and everything down to semiconductor chips must grow proportionally (in capacity and performance) to support the increased traffic," says the roadmap.

Another big trend that iNEMI identified in its latest roadmap includes increased use of microelectromechanical sensors in a growing number of applications such as cell phones, automotive and medical electronics.

Among technologists, there are growing concerns about sustainability, as companies "continue to grapple with the lack of industry-wide methodologies to evaluate alternative materials and the need for data to assess and quantify environmental impacts of products in a consistent way," says the roadmap.

The rate of miniaturization continues at even a faster pace, driven by the explosion of smart phones, tablets and other mobile device. This has led to the increased use of complex 3D assemblies, such as system-in-package technologies. "These solutions, however, come with their own sets of challenges," says iNEMI.

The roadmap looks at challenges in materials development, manufacturing technology, design and modeling, standards and sustainability. It describes some paradigm shifts:

- The need for continuous introduction of multi-functional products to address converging markets favors modular components or system-in-packaging (2D and 3D) to increase flexibility and shorten design cycles;
- There are challenges in reducing the cost of lithium batteries from $1,200 per kWh to a target of $250 kWh to improve the prospects for electric and hybrid vehicles;
- The adoption of "sensors everywhere," including microelectromechanical systems and their increasing demands for more wireless traffic;
- Advancement of automotive safety systems and their potential for broader use in other sectors;
- Electronic component suppliers utilizing embedded passive and active components, systems-in-packaging, systems-on-chip, or any other means to densely pack ICs with increased functionality;
- Evaluation of alternative materials for connector housings and cable insulation to find replacements for brominated/chlorinated flame retardants and PVC. "Initial results indicate that more development may be required to meet specifications of high-volume/low-cost applications," says the roadmap;
- Medical patient monitoring using tablet-sized devices — as a proactive and preventive measure — is expected to see major growth.

Bill Bader, CEO of iNEMI, says the latest roadmap "is an invaluable tool that can help companies prioritize investments and technology deployment and can also help university-based research programs focus their efforts on topics relevant to industry and provide guidance for government agencies investing in emerging technologies." iNEMI's first roadmap was produced in 1994 by 106 individuals and had 172 pages. The latest version involved the efforts of 650 individuals from more than 350 organizations and is 1,900 pages.

Sales Growth Stalls For Industrial Robotics

Sales of industrial robots were flat across the globe in 2012, at 159,000 units, and sales for 2013 are also not expected to grow, according to the International Federation of Robotics in Germany.

Japan led the world in robot sales at 28,700 units (far below the 44,000 units sold there in 2005) but the figure was up slightly from 2011. China was in second place globally for the first time in 2012 at 23,000 units, up from only 5,000 units in 2009. The United States was third in the world at 22,400 units (a new peak level), followed by Korea at 19,400, a decline of 24 percent from the previous year of about 28,000 units. Germany rounded out the top five at 17,500 industrial robots, down from almost 20,000 units in 2011.

Producers of industrial robots continue to face technical challenges of designing robots that work collaboratively with humans without the need for fences; robots that can be easily programmed or taught; robots that can be more easily integrated with machine tools; and robots that are light — that weigh 14 kilograms.

House And Senate Are Far Apart On Budgets For Science And Technology Programs

The House and Senate Appropriations Committees have passed funding bills for the science and technology agencies, but they are nowhere near each other in the amount of money that would be spent next year.

The House is frugal. In the overall Commerce, Justice, State and Related Agencies appropriations bill (HR-2787), the appropriators approved $47.4 billion, while the Senate approved $52.3 billion.

For the National Institute of Standards and Technology, the Obama administration requested $928.3 million, a 14.8 percent increase ($119.6 million) over the fiscal year 2013 budget. The House recommended $784 million, a decrease of $24.7 million (3.1 percent) from 2013 and $85 million below the Obama request. Senate appropriators recommended $948 million for NIST, an increase of $139.3 million, or 17.2 percent over last year's level of $807 million.

Within the NIST account, the Manufacturing Extension Partnership program would receive $153 million under the Senate plan. The House provides $120 million for MEP.

The Senate funding for MEP includes $25 million for the creation of three or four pilot Manufacturing Technology Acceleration Centers (M-TAC) "which shall be led by individual MEP centers or consortia of MEP centers," says the Senate appropriations report (113-78).

The Senate also provided $31.4 million for the Advanced Manufacturing Consortia (AmTech) program. The Senate directs AmTech program managers to "consider partnerships and investments in pharmaceutical manufacturing as well as more traditional areas of manufacturing including clean energy."

There is no money in the appropriations bills for the proposed National Network of Manufacturing Institutes (NNMI). The Obama administration wants Congress to provide it with $1 billion for the new network of 15 centers. But the Senate Appropriations Committee says it can't provide that type of money because "the authorizing committees have not acted on this proposal." Furthermore, "the Committee does not believe there is a significant distinction between the AmTech consortia and the proposed NNMI institutes. The Committee has provided $10 million above the request for AmTech and directs that at least one AmTech consortium using the pilot NNMI model be funded using discretionary funding provided for AmTech." Senate appropriators also direct NIST to report on how NNMI-related efforts "can be merged into AmTech."

The House report does not mention NNMI and does not fund AmTech.

The House provides $2.5 million for NIST to create a National Innovation Marketplace "a web-based tool to help companies, communities, colleges and universities, inventors and entrepreneurs accelerate supply chain connections and facilitate partnerships, helping to create jobs in the U.S.," according to the House Appropriations report.

For the National Science Foundation, Obama requested $7.626 billion, an increase of 5.1 percent ($371.5 million) over 2013. The House Appropriations bill recommends a decrease of 3.6 percent ($259.2 million) to $6.995 million. The House provides $5.676 billion for research, $195 million below 2013 and $536 million below the Obama request. The Senate recommends $7.426 billion for NSF, an increase of $186 million above the fiscal year 2013, but $200 million below the Obama budget request.

NASA's budget remains flat as it has for the past decade, with the Obama administration requesting $17.7 billion for 2013, an increase of $174 million (1.0 percent). The House recommended $16.6 billion, a decrease of $943 million, or 5.4 percent. The Senate appropriations bill boosts NASA by 2.6 percent or $458.3 million to $18 billion.

Within the Commerce Department, Senate appropriators approved $500 million for the International Trade Administration, which was $27 million above 2013 and $29 million below the Obama administration request. The House was more stingy, providing ITA with $451 million, $22.3 million below 2013 and $78 million below the Obama budget request.

House appropriators direct ITA to initiate a widespread consolidation and reorganization "to reduce administrative overhead and improve delivery of services." Affected programs include export promotion, expanding market access and the enforcement of trade agreements. There is a "particular emphasis on the merger of the U.S. and Foreign Commercial Service with Market Access and Compliance into 'Global Markets' and the consolidation of trade promotion programs into the new 'Industry and Analysis' unit," according to the House Appropriations report (113-171).

The SelectUSA initiative to attract foreign direct investment received $15 million from the Senate and nothing from the House.

The Interagency Trade Enforcement Center would receive $15 million from the Senate and $6.3 million from the House.

The Senate provides $16.4 million for China Anti-dumping and Countervailing Duty activities — the same level as the House provides.

The Bureau of Industry and Security, which oversees export controls,

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would receive $112 million from the Senate, up from $99.7 million in 2013. The House provides it with $94 million for next year.

The Economic Development Administration (EDA) would receive $276.3 million from the Senate, an increase of $56 million from 2013, but $44.7 million below the Obama administration request. The House provides $220 million for EDA, $100 million below the Obama administration request.

The Trade Adjustment Assistance for firms program would receive $15.8 million from the Senate and $10 million from the House. The House directs EDA to conduct an audit of the Trade Adjustment Assistance Centers (TAACs), and provide it with "recommendations for increasing competition in this program."

The EDA's "Innovative Manufacturing Loans" program would receive $5 million from the House and $10 million from the Senate.

While the science and technology accounts struggle, the budgets for the Justice Department, which competes for funding from the same account, are booming. Senate Appropriators provide $28.5 billion for the Justice Department — $1.17 billion more than in 2013, and $72 million above the Obama administration's request. The FBI gets $8.36 billion, up by $336 million in one year.

Within the Justice Department account, Senate appropriators provide an increase of $93 million to fight cyber threats to American enterprises, including the addition of 60 new FBI special agents, 50 new computer scientists, 25 new attorneys and 66 professional support staff.

The House provides $226 million for intellectual property rights enforcement, commending the Justice Department "for the high level indictment of an international organized criminal enterprise charged with massive, worldwide online piracy of numerous types of copyright works through various websites, generating more than $175 million in criminal proceeds and causing more than half a billion dollars in harm to copyright owners."

The Office of the United States Trade Representative would receive $56.2 million under the Senate appropriations plan, up from $50.2 million that was provided in 2013 (not including the sequester). The House provides USTR with $50 million, $6.17 million below the Obama administration request. The House wants USTR to provide it with a report on its ability "to adequately investigate, develop and/or resolve trade complaints," according to the Appropriations Report. "As part of this assessment, the USTR shall evaluate the availability of and access to information necessary to address unfair trade complaints."

Trade Adjustment Assistance Program Cost Taxpayers $855 Million In 2012

The number of workers who received government benefits for having lost their jobs due to imports and offshoring of their factories and departments declined in the federal government's fiscal year 2012 to 81,510, from 104,743 in 2011 and 287,026 in 2010. Of those who received the Trade Adjustment Assistance (TAA) entitlement in 2012, 68 percent (55,217) were manufacturing workers. The number represents about one-third the number of new jobs created in the manufacturing sector during that period (155,000). (Over the 12 months ending in July 2013 32,000 new manufacturing jobs have been added to the U.S. economy.)

Twenty-five percent of the workers in 2012 approved for TAA benefits (or 24,342 workers) lost their jobs due to a "shift in production to a foreign country," according to the Department of Labor. Nine percent (or 11,469) lost their jobs due to customer imports of products; and 4.6 percent lost their jobs due to their company's shift to imports over domestic production.

The Trade Adjustment Assistance program is expensive: In 2012, taxpayers gave $855 million to workers who lost their jobs due to imports and outsourcing, with laid off Michigan workers receiving $98 million, followed by Ohio workers receiving $60.3 million, Pennsylvania workers receiving $50.3 million, Wisconsin workers receiving $46 million and Illinois workers receiving $31.6 million.

In 2012, the Labor Department received 1,332 TAA petitions from workers in individual companies. It approved 85.5 percent (1,134) of those requests.

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'As Small Manufacturers, We Are The Special Interests'

BY RANDY BENNETT and DAVID SATTLER

We are Ohio manufacturers, business owners, entrepreneurs and job providers. We're not based in big cities. The blood, sweat and tears we put in to keeping our businesses humming helps keep our communities thriving.

In Washington, we're often seen as something different: "special interests." It's not a label you want on your back when the subject is tax reform.

One of our companies has two subsidiaries: Sattler Machine Products is a family-run contract machine shop that serves the mining, steel production, wind power and robotic welding markets. Sattler Pump Solutions supplies oil field, pipeline and petrochemical processing industries with equipment and pumps. Together, they employ 19 workers. The parent company, Sattler Companies Inc., is structured as an S Corporation.

The other company is Automation Tool & Die Inc., a tool and die and metal stamping company that serves customers in the automotive, industrial hardware and other industries. Automation Tool & Die currently employs 71 workers and is looking to fill 11 more positions. The company is structured as a C Corporation.

As a subchapter S Corporation, all income flows into the personal returns of Sattler Companies' principal shareholders, who pay taxes at the individual rate — a rate that Congress allowed to increase in January for thousands of businesses like ours. As a C Corporation, Automation Tool & Die's principals first pay corporate tax and then pay individual taxes on whatever profits are distributed to them as shareholders — in other words, they are taxed twice.

The reason most small manufacturers structure themselves as pass-through is, at least in part, because many are family-owned businesses that plan to keep the company in the family after the current owners retire. Countless small manufacturers around the country are structured this way and are now planning a transition from the third to the fourth generation of manufacturers. In fact, 81 percent of all manufacturing businesses in the United States are either an S Corporation or another form of pass-through entity.

The other reason is more obvious — the double taxation of C Corporation dividends that occurs when owners take their earnings out of the business. No one wants to pay double taxes on their hard-earned income; after all, when an owner pays a higher tax rate, it means the company has less cash remaining to buy equipment and hire employees. What many people don't know is that small business owners have to personally guarantee loans for their companies when they buy capital equipment, which, in the case of America's manufacturing companies, means machines that start at a few hundred thousand dollars and range into the millions.

The fewer resources we have on hand to show our lenders, the more difficult it is to obtain financing to expand, stay competitive and hire more workers. This simple truth is both very real and very important to America's remaining manufacturing base.

There are a number of ways that small manufacturers manage to stay afloat in today's market amidst global competition. Tax provisions such as Section 179 Equipment Expensing are utilized by a huge slice of our industry, along with Bonus "Accelerated" Depreciation, the R&D tax credit, Section 199 Domestic Production Deduction and Last-in-First-Out, among others.

In a recent survey of our industry, 88 percent of participants reported using Bonus Depreciation to help them purchase equipment and invest in their facilities. These are not accounting tricks or "special interest giveaways" — they are policy tools created to help incentivize small businesses operating in a tough industry to take a chance on big investments that won't pay off overnight.

There is no question that our country needs tax reform, and Congress is right in seeking to clean up the many loopholes created over the years. However, the "special interests" benefiting from things like Section 179 are not a bunch of niche hobbyists or an extra-vocal political group. They are the 12 million manufacturers employed in the United States; the millions more throughout the supply chain who help finance, build and sell capital equipment; and the many millions more who purchase goods that are manufactured domestically.

Congress has its work cut out for it in taking on this challenge. But our greatest concern is the seeming obsession with corporate-only tax reform, a path that leaves America's small businesses in the rearview mirror.

We're very interested in the future of our businesses, and lots of folks in our communities happen to think we're pretty special. So, yes, you might say that we are the special interests. And we're proud to stand up and say so.

— Randy Bennett is a co-owner of Brunswick-based Automation Tool & Die and is a member of the Precision Metalworking Association. Dave Sattler is president of Sharon Center-based Sattler Companies Inc., and is a member of the National Tooling and Machining Association.

Expected Changes to Employment and Revenue Statistics From Changing Outsourcers To U.S. Producers:

Total U.S. Employment And Wages	U.S. totals will not change.
Sector U.S. Employment And Wages	Values will shift across sectors with manufacturing growing and other sectors primarily wholesale trade, shrinking. Increases in manufacturing are expected to be centered in specific industries. This will result in regional shifts within sectors including manufacturing.
Production Employment	U.S. totals will not change. Sector total changes will be minimal, since factoryless goods producers would have few, if any, production employees.
Total U.S. Revenue Values	Total will likely change but the direction and amount of the change are unknown. 1. Factoryless goods producers may report revenues from products that would have previously been treated as imports. 2. For a factoryless goods producer manufacturing establishment previously classified in wholesale trade, revenues will increase by the difference between the wholesale trade margin and the full value of the products. 3. For manufacturing establishments that are determined to be manufacturing service providers rather than integrated manufacturers, revenues will decrease by the difference between the full value of the product and the value of the manufacturing service they provided.
Sector U.S. Revenue Values	Sector totals will change with increases expected in manufacturing and decreases in other sectors. The manufacturing changes will likely be in specific industries.

Expected Changes to Import and Export Statistics From Changing Outsourcers To U.S. Producers

Value of U.S. Imports	The total will likely change, but the direction and amount of the change are unknown. The mix between goods and services will also change. The changes will be centered in specific product areas. 1. For products transformed by foreign manufacturing service providers for domestic factoryless goods producers: • The full value of the products they transformed and returned to the U.S. factoryless goods producer will be excluded from imports. • The value of the mfg. service that they performed and any inputs they provided will be included in imports. 2. For products transformed by U.S. manufacturing service providers for foreign factoryless goods producers: • The full value of the products that they transformed that remain in the U.S. are included in imports. • The value of any inputs that they received from the foreign factoryless goods producer will be excluded from imports.
Value of U.S. Exports	The total will likely change but the direction and the amount of the change are unknown. The mix between goods and services will also change. The changes will be centered in specific product areas. 1. For products transformed by foreign manufacturing service providers for domestic factoryless goods producers: • The value of products that have remained in a foreign mfg. service provider's country or were shipped to a foreign mfg. service provider to another country will be added to exports. • The value of the inputs that the domestic factoryless goods producer provided to the mfg. service provider will be excluded from exports. 2. For products transformed by U.S. mfg. service providers for factoryless goods producers: • The full value of any product that they transformed and returned to the foreign factory goods producer will be excluded from exports. • The value of the mfg. service that they performed and any inputs they provided will be included in exports.

(Source: Maureen Doherty, BLS)

Factoryless Producers...

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should not be considered an import, says the committee made up of representatives from the Bureau of Economic Analysis, the Bureau of Labor Statistics, the Census Bureau and the White House Office of Management and Budget.

Fundamental global changes in production due to outsourcing "have introduced complexities into the production of economic statistics, forcing a re-examination of traditional economic measurement concepts related to industry classification for establishments and the value of a country's outputs, and exports both within the U.S. and internationally," says Maureen Doherty of the Bureau of Labor Statistics. "Economic activity classification systems did not address how to handle the output of establishments that outsourced certain production tasks. . . [T]o the extent that production tasks were outsourced internationally, questions were raised concerning how the outsourced accounts were handled in National Accounts and Balance of Trade statistics."

U.S. statistical agencies found that the North American Industry Classification System (NAICS) did not provide a clear definition of companies that outsourced their production overseas, but that still owned the design and controlled the production and sale of goods from that foreign production. In 2008, the Economic Classification Policy Committee created a "Manufacturing Transformation Outsourcing Subcommittee" and told it to define outsourcing and identify "characteristics of establishments that outsource manufacturing transformation activities."

The committee considered numerous options on how to classify factoryless goods producers — and it issued a Federal Register Notice in January 2009 seeking input on how it should classify these companies. Only 10 comments were received, "with a split of opinions as to how factoryless goods establishments should be classified," says Doherty.

The committee decided that all factoryless goods producers "should be classified in manufacturing, the specific industry classification based on the transformation production process used by the contractor," Doherty explains.

But the change has raised questions. Should a company be considered a factoryless goods producer if it does not own any of the materials, equipment or the processes that are used to produce their product? How about risk? Does a factoryless goods producer that shifts risk — the need for a contract manufacturer to obtain credit in order to purchase inputs and equipment based on an order — still control the output of an order even if there are contractual payment terms that do not provide it with ownership until delivery?

The committee came up with a concept of "economic ownership" for factoryless goods producers, describing them as owning or controlling the rights to intellectual property or design of the product being produced offshore. Factoryless goods producers can independently change the product design; they control production by controlling inputs, choosing product lines and setting output levels. They own the final product and set its price. They sell the final product or arrange for the sale of the final product. They assume entrepreneurial risk and are responsible for losses. And they can report market value of the final product — the number of units they produce and sell and the cost of the foreign manufacturing services.

The goal was to adopt the new classification system by 2012. But the group realized that any changes had to be implemented in conjunction with the five-year Economic Census, and it wasn't possible "given the complexity of the changes . . . [and] number of difficulties related to the detailed steps that would be required to accurately measure economic activity under the new definitions," says Doherty.

The committee recommended "that full implementation of the outsourcing redefinitions should be delayed with the goal of the 2017 Economic Census." This recommendation was accepted by the Economic Classification Policy Committee and OMB in November 2010.

None of this will be easy and it might be controversial, according to those who have been following the committee's work. "The government is going to have to explain the nomenclature of who owns the materials that go into a production process and who owns the equipment," says one economic statistician. "What if the equipment is fully contracted out by the contractor? Can an American management company or an R&D company now be considered to be a manufacturing firm, even if they have never designed a manufacturing process and if they jump from one contract manufacturer to another? Try to explain that to a company in a data survey the government wants to collect."

Reclassifying to "manufacturing" the thousands of companies that are currently engaged in wholesale trade and have outsourced production could affect more than just statistics. Even OSHA could be involved: "If these American companies are classified as manufacturing companies and their [foreign] output is considered to be part of U.S. production, then why should the United States not have OSHA regulate their production in China?" asks one observer. EPA and FDA might also want to check out "American" production that is offshore.

The changes mean the federal government is going to have to start a widespread outreach program to companies and associations with the goal of them understanding "how establishments typically manage and record outsourcing activities," says Doherty. "[T]he acceptance of the concept of a factoryless goods producer will require a paradigm shift for many people and organizations. As a result, the Economic Classification Policy Committee determined that an educational outreach campaign is necessary to explain the changes prior to the publication of data based on redefinitions."

Says William Powers of the ITC: "We need to get a sense of global integration and how much there is and

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what our policies will actually be. We don't know the extent of this phenomenon and the ways we can measure it don't work very well. We need to have a sense of knowing how many companies are tied to U.S. manufacturing. The ECPC and the people [involved in factoryless goods classification] are not looking at this as a way to make U.S. manufacturing look better. They just want to know how much of this exists. If you can say, 'Look at how much more factoryless goods production there is in this industry versus another industry and which regions have been affected,' then you will have facts that will support one position or another [on outsourcing]. Currently with our official statistics, we don't have those facts."

With solid data on factoryless goods production, there could be a much better basis for determining if technology and productivity are the primary cause for the decline in manufacturing employment, as many economists argue, or if that decline is being driven by outsourcing. "If you have the data that comes from separating those two things, then you can start the argument by taking it well beyond anecdotes," says Powers.

But how are jobs going to be handled in the new data series, asks *Manufacturing and Technology News* Editor Richard McCormack. While Apple has 50,000 U.S.-based employees, its CEO has stated that there are 1.2 million people employed making Apple's products in China and elsewhere. Executives at American companies, stockholders and those who live off investment income benefit from outsourcing and factoryless goods production offshore, but how about the workers? In today's world, the only thing that matters is who has the jobs and goes home with a paycheck. If the government is so interested in factoryless goods production offshore and will classify imports as U.S. production, then why won't it ask those same companies how many people they employ in those operations offshore? And if they are classifying those companies' output as U.S. production, then why wouldn't it classify their contract workers creating that output — such as those at Foxconn in China making all of Apple's products — as American workers?

Powers responds: "That area has been very understudied in the global value chain literature. You can plug in the job numbers. You can plug in the input-output methods and you can plug in a job per value of output just as well as you can a dollar of value added per unit of output, but that hasn't been well studied, so it is tricky. But once these data come in, they will affect job estimates. They won't give you what you are looking for exactly, but they will give you a sense of the value of what's being done domestically and what's being done by factoryless goods producers that outsource overseas. Once you have a value, then you can answer that question."

A variety of economic papers were presented on the topic at a conference held earlier this year by the Upjohn Institute: http://www.upjohn.org/MEG/Conference_agenda.

COMMENTARY

H-1B Visa Program Is Good For Firms That Outsource Jobs

BY RON HIRA
Rochester Institute of Technology

The H-1B 'non-immigrant' temporary foreign guest worker program is called a valuable tool for employers to attract and retain the "best and brightest" immigrants in the science, technology, engineering and math (STEM) fields. Because employers may petition for permanent residence for their H-1B employees, the visa is sometimes described as a "bridge to immigration" that will keep the smartest foreign STEM workers in the United States permanently and thus improve the nation's competitiveness.

However, for the biggest users of the program, this view is false: In 2012, the 10 employers receiving the largest number of H-1B visas were all in the business of outsourcing and offshoring high-tech American jobs. Many of the jobs that went to H-1B workers should have instead gone to U.S. workers. The top 10 H-1B employers were granted an astonishing 40,170 visas; nearly half the total annual quota.

There are two reasons these firms hire H-1Bs instead of Americans: an H-1B worker can legally be paid less than a U.S. worker; and the H-1B worker learns the job and then rotates back to the home country and takes the work with him. That's why the H-1B was dubbed the "Outsourcing Visa" by the former Commerce Minister of India, Kamal Nath.

Rather than keeping jobs from leaving the United States, the H-1B does the opposite, by facilitating offshoring and providing employers with cheap, temporary labor — while reducing job opportunities for American high-tech workers in the process.

Here are the top 10 corporations that use the H-1B visa:

1.	Cognizant	9,281
2.	Tata	7,469
3.	Infosys	5,600
4.	Wipro.	4,304
5.	Accenture.	4,037
6.	HCL America	2,070
7.	Tech Mahindra SATYAM	1,963
8.	Larsen & Toubro. .	1,932
9.	IBM & IBM India.	1,846
10.	Deloitte	1,668