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2013

INTERNATIONAL TRADE & THE PORTLAND HARBOR'S IMPACT

on the Portland-metro and Oregon economy

Overview: How it all connects



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About this report

Export data is presented from two sources in this report. The \$18 billion figure in this report is for all exports leaving Oregon, regardless of origin. The \$16.5 billion number in Figure 1 represents only exports originating in Oregon. The difference is that grain from other states is included in the \$18 billion number. It leaves an Oregon export grain elevator and is counted as an export from Oregon.

In addition, recently released data from the Brookings Institution estimates the value of Portland-metro's exports to be \$33.9 billion. Those numbers include the value of both goods and service exports as well as exports from Clark County businesses. Unless stated otherwise, the state data found in this report focuses only on the exports of Oregon goods.

This report is part of a series produced for the Value of Jobs Coalition to track and understand the opportunities and challenges in the Portland-metro region's economy. Included in this report are three inter-related studies about international trade, the Portland Harbor's economic impact and marine industrial businesses engaged in trade activity.

This report also follows up on a 2010 Value of Jobs Coalition international trade study, which revealed several key findings about the region's dependence on international trade and its role in the region and the state's recovery from the most recent recession. That 2010 study led to a partnership between the city of Portland, Greater Portland, Inc. and the Brookings Institution on a specific plan to grow the region's international exports, one of the first metropolitan export strategies in the nation.

Because the first international trade study led to such positive developments, we decided to take another look at the macro level to gauge changes since 2010. In addition, a number of our other reports on different aspects of the region's economy led us to better understand the connection between international trade and the traded and local sectors at a more micro level.

Therefore, we conducted a second and third study about the connection between international trade and businesses engaged in trade activities, examining the economic impact of the Portland Harbor and that of five marine industrial businesses. The study about the Portland Harbor, including the Port of Portland, sheds some light on the harbor's economic impact – including income earned by the businesses that operate there and employees who work there.

And lastly, the third study drills down even further into five marine industrial firms, demonstrating how traded-sector businesses catalyze the region's economy, creating more local-sector jobs through their procurement of goods and services.¹

The findings of each study show that, with access to one of the best multimodal transportation hubs on the West Coast, Portland-metro and Oregon businesses continue to rely on, and reap huge benefits from, efficient connections to domestic and international markets. That translates directly into thousands of family-wage jobs, which in turn support employment at supermarkets, car repair shops and many other businesses serving trade-sector companies and workers.

The Portland-metro region's geographic location on the Pacific Rim, deep-water and inland port system, international air connections and extensive road and rail infrastructure will continue to play a strong role in the economic recovery and growth of Oregon businesses and jobs.

However, we cannot afford to become complacent. Local, regional and national policy makers and business leaders must continue to work hard to ensure we remain competitive by encouraging investments in infrastructure and promoting tax and trade policies, as well as ensuring an adequate employment land supply, to facilitate international trade, and in turn, generate good family-wage jobs and a better quality of life.

¹ The first study, *Today More than Ever: Oregon and Portland/Vancouver Depend on International Trade and Investment*, was completed in September 2013 by the Trade Partnership. The second, *The Port of Portland's Marine Operations, The Local Economic Benefits of Worldwide Trade*, was completed in August 2013 by ECONorthwest. The third, *Economic Linkages from Marine Industrial Businesses* was completed in August 2013 by One Northwest Consulting.

An update of international trade trends

KEY FINDINGS

- ▶ The Portland-metro region exported one-fourth of its economic output in 2012.
- ▶ On the state level, goods exports accounted for 8.4 percent of Oregon's GDP in 2011.
- ▶ Oregon manufacturers and their workers depend on foreign customers for one in every four sales dollars.
- ▶ About 90 percent of Oregon exporters are small- to medium-sized businesses, which employ more than half of Oregon's private-sector workforce.
- ▶ While Asia remains Oregon's largest overseas market, the greatest growth in state exports is to free trade partner countries, which accounted for \$5.7 billion of total exports in 2012.
- ▶ Overseas investment continues to provide regional jobs. During 2010, nearly 43,000 Oregonians worked for overseas-based companies throughout the state.

Jobs and wages

Job multiplier effect: Recent studies show that international trade directly or indirectly supports about 9,100 jobs at the ports of

Portland and Vancouver.² On a broader scale, the analysis estimates that about 78,500 jobs are directly related to Oregon's exports of goods and services. Another 82,000 jobs are "indirect jobs"³ related to goods or services exports, such as suppliers of parts used in an exported manufactured item. But when factoring in all jobs associated with exporting and importing activities in both Oregon's manufacturing and nonmanufacturing sectors, the employment impact of trade is much larger: Some 490,000 Oregon jobs are supported by trade.

Premium wages for trade-related workers: Recent studies have found that workers in export industries and firms earned substantially more than those in non-exporting businesses. A previous 2010 Value of Jobs study concluded that export-related jobs pay on average 18 percent more than non-exporting jobs across all industries. Wage premiums are even higher in sectors of importance in Oregon. For blue-collar workers working for exporting firms (vs. non-exporting firms in the same sector), wages range from 20 to 40 percent higher

² 7,400 jobs at the Port of Portland in 2011; 1,700 jobs at the Port of Vancouver in 2010; these are jobs supported by international trade only, excluding domestic trade. For job totals harbor-wide, which include private entities, see the trade-based business study later in this report.

³ Sometimes called "induced" jobs, this can include manufacturing suppliers, professional services such as accounting and legal firms as well as other services such as daycare and catering.

BY THE NUMBERS:

490,000.

Number of Oregon jobs tied directly or indirectly to, or supported by, international trade; up 20,000 from 2010.

7.5 times.

Amount by which Oregon's trade-related employment grew faster than total employment between 2004 and 2011.

\$18 billion.

Value of goods exported from Oregon in 2012; up \$3.4 billion from 2009.

\$8.2 billion.

Value of services exports from Oregon in 2011; a 21-percent increase since 2008.

\$42.2 billion.

Total value of both imported and exported goods in 2012.

4th.

Rank of Portland among the largest 100 U.S. metro areas in terms of export value as a share of metro output (24 percent).

7th.

National ranking of Oregon in per capita value of exports in 2012; up from 9th in 2010.

in the chemical, machinery, computer and transportation equipment sectors.

Similarly, white-collar workers' wages at exporting companies range between 16 to 32 percent higher in these sectors. In the Portland-metro area, wage premiums for trade-related workers can be more than 60 percent of the area's average wage.

Small businesses drive trade: Small- and medium-sized businesses, and family-owned businesses, those with fewer than 500 employees, account for the bulk of Oregon's exporters and, as noted earlier, these businesses employ more than half of Oregon's private-sector workforce. In 2010, more than 90 percent of Oregon's 5,103 exporters were small businesses, up 2 percentage points from 2008. This statistic only accounts for businesses that are direct exporters, not the many companies that provided labor or components to the finished, exported product.

Jobs created by overseas investments: Overseas investments in Oregon also contribute to the region's economy and job base. Majority-owned affiliates of overseas businesses employed 42,600 Oregon workers, or about 3 percent of Oregon's

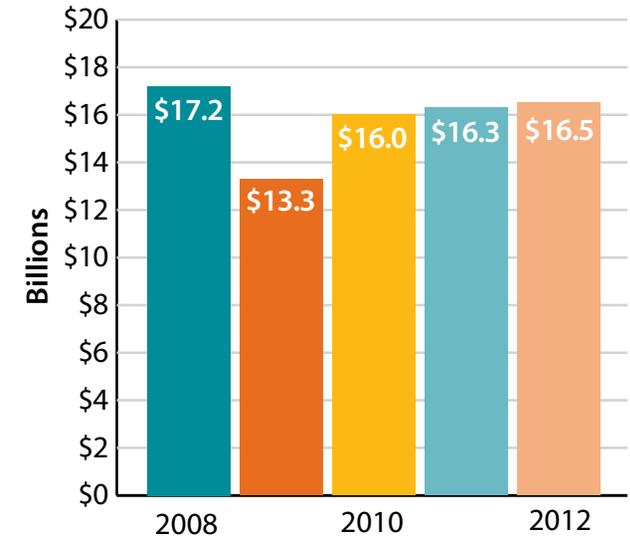
private-sector workforce, in 2010. Thirty percent of those jobs were at manufacturing firms owned by subsidiaries of overseas businesses.

Latest trends: Goods exports

Oregon and the Portland-metro area continue to be strong centers for the export of commodities, including manufactured goods, food, agricultural products and transportation equipment. In 2012, all exports from Oregon reached \$18 billion with \$16.5 billion originating in Oregon, as shown in Figure 1. This total was down about 6 percent compared to 2008 (before the global recession hit) but represented a third successive year of post-recession growth.

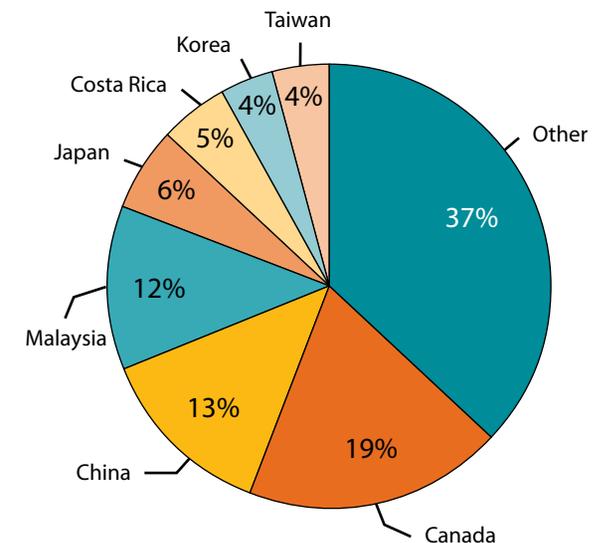
Leading sectors: Ten sectors continue to account for the majority of Oregon's exported goods; in 2012 they were responsible for 88 percent of export revenue. Not surprisingly, however, nearly 40 percent could be attributed to just one sector – computers and electronics. Machinery, chemicals and transportation equipment together represented about 27 percent of total merchandise exports. Further down the list, but of particular significance, are Oregon wood products, which make up about 9 percent of total U.S. exports in this category.

Figure 1: Oregon-made goods exported to the world, 2008-2012



Source: U.S. Census Bureau

Figure 2: Top Oregon goods export markets, 2012



Source: The Trade Partnership from U.S. government data.

DID YOU KNOW?

To keep costs low, Portland-based Totem Steel sources from mills not only in the U.S. but in China, India, Taiwan, Korea, Indonesia, Brazil and Mexico. It then supplies flat-rolled steel products through various value added programs to American and Canadian manufacturers of niche products such as residential HVAC equipment, metal building, entry and garage doors, metal furniture and shelving and steel drums and coiled tubing, which are exported all over the world.

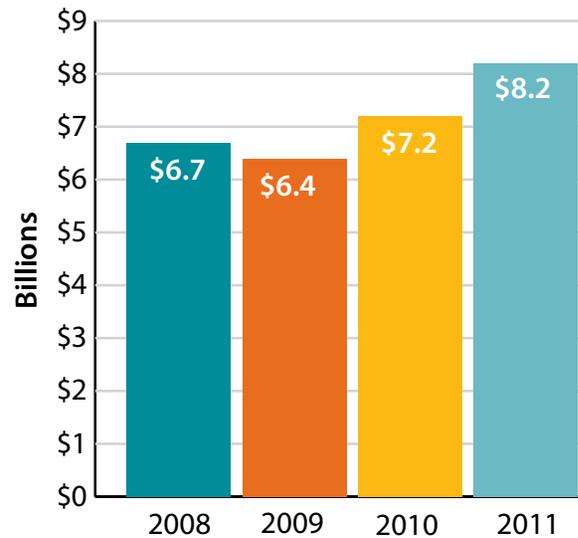
Mixed recovery: Since the recession, recovery among leading exporting sectors has been mixed. While computers and electronics saw sales grow in 2010, that sector has contracted in recent years due to weak global demand for computers and related products. Some sectors that rebounded strongly in 2010 and 2011, including chemical exports (ranging from fertilizers to pharmaceuticals, primary metal products to scrap and waste), saw sales contract in 2012. In contrast, machinery, transportation equipment and food products, among others, have snapped back to steady growth since 2009. Aerospace exports in 2012 surpassed their 2008 levels, as have exports of agriculture, construction, industrial and services machinery, and preserves and specialty foods.

Free trade partners: Goods exported to 20 Free Trade Agreement (FTA) partner countries account for 35 percent of Oregon exports (\$5.7 billion in 2012). Products going to these countries include agricultural goods and the fertilizers/pesticides and machinery needed to grow crops, scrap to make steel as well as finished steel products, plus motor vehicles and industrial machinery. Three of the top seven export markets are FTA partner markets, see Figure 2.

Latest trends: Services exports

Broader market reach: Exported services are increasingly important to the region's economy, which now total \$8.2 billion, see Figure 3. Particularly important is the export of technical services such as industrial process royalties, software licenses, and research and development. Compared to goods exports, exports of services are spread across a greater

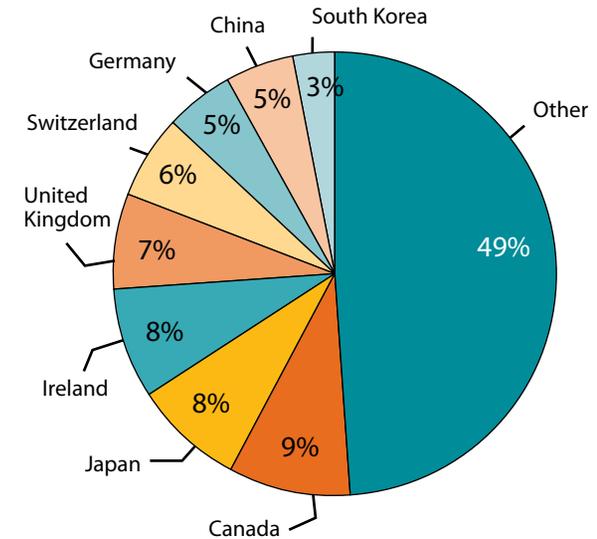
Figure 3: Oregon's services exports to the world, 2008-2011



Sources: *The Trade Partnership* from U.S. government and private industry data.

number of foreign markets. While sales to Europe, Oregon's single largest overseas market for services, dipped during Europe's own economic decline in 2009-10, sales have since recovered. Sales to Asia and other Pacific Rim countries grew steadily during that period.

Figure 4: Top Oregon services export markets, 2011



Service exports to Asia rose from 24 to 29 percent of total export value between 2008 and 2011. Service exports to China alone rose from 2.9 to 4.5 percent of total regional exports during that period. The top service export markets can be seen in Figure 4.



DID YOU KNOW?

Viewpoint Construction Software, headquartered in Portland, provides technology tools to help construction professionals efficiently manage all areas of operations. Viewpoint is not a software company creating construction products, but more accurately a construction-minded company creating software solutions. With offices in Australia, the United Kingdom and Canada, Viewpoint is expanding its reach from across the U.S. to around the globe.

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Overall export trends

Free trade partners boost growth: Many trade bright spots can be found among FTA partner countries. For example, merchandise exports to Canada now account for 18.5 percent of Oregon's total exports, up from 16.6 percent in 2008. Sales to nearly every South American market, while relatively small (4 percent of total), have grown substantially since 2008 – exports to Brazil and Colombia are up about 40 percent; to Chile, 70 percent; and to Peru, nearly double to 97 percent. Of note, Canada and the latter three South American countries are all free trade partners.

Some trade is down: Oregon now exports to nearly 250 countries and territories around the globe. While Portland-metro's Pacific Rim location has prompted a focus on export activity in Asia (which accounts for more than half of the region's exports), the global recession took a significant bite out of Oregon goods exports. China, Oregon's largest market after Canada, once received 14 percent of Oregon exports

but now receives 13 percent (worth about \$2.2 billion). Likewise, goods exports to Malaysia, Japan, Korea and Taiwan declined in 2009 and sales to several other Asian countries have yet to recover.

Asian countries are showing a greater appetite for Oregon products: Exports to pending-FTA partner Vietnam, thanks to new semiconductor co-production opportunities, have jumped from \$66 million (2008) to nearly \$573 million. Exports to pending-FTA partner Japan and 2012 FTA partner South Korea have grown at an average annual rate exceeding 18 percent since 2009. Two additional trade negotiations currently in progress, the Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership, would further reduce tariff and non-tariff barriers that keep foreign markets closed to Oregon goods and services.

The rest of the story: Oregon imports are an economic driver

Oregon and the Portland-metro region's international trade story cannot be told without the other side of the trade equation: Imports. More than \$16 billion in goods were imported to Oregon in 2012. More than 65 percent of the imports were raw materials, processed raw materials and components, and machinery and industrial equipment used by farmers, manufacturers and others to produce goods and services in Oregon. This activity requires people managing the logistics, handling, sales and other activities related to getting these goods and services to the customer.

Additionally, by providing access to lower cost materials, imports continue to play an important role enabling regional manufacturers and service providers to compete for sales in global, national and regional markets.

Oregon's role in the global integrated supply chain

When looking at the list of imports, it is clear that Oregon and the Portland-metro region are part of a bigger story – a global story. Increasingly, Oregon companies and workers are part of an integrated global supply chain. Businesses export goods and services to foreign customers who manufacture finished products from those Oregon inputs. Thanks to lower transportation costs, reductions in tariff and non-tariff trade barriers around the world – and the Internet, among other factors – these supply chains have grown quite large and specialized.

For example, U.S. (and Oregon) electronics parts and components are often exported to Japan, Hong Kong, Korea and Taiwan, where they are partially assembled, and then shipped to China for final assembly before being exported back to the U.S. Recent research has found that 8.3 percent of the value of U.S. imports reflects U.S. content. The share is higher for imports from Asia, Oregon's chief export market, where about 30 percent of the value of U.S. imports reflects U.S. content. And 63 percent of the value of U.S. electronics imports from Asia reflects U.S. value.

An assessment of the Portland Harbor's economic impact

OVERVIEW

While the first section of this report looks at the macro level of international trade, this second report is focused on the economic impact and local benefits of all Portland Harbor activities. These activities include private terminals, manufacturing areas and public terminals owned by the Port and leased to private entities. Together harbor-related firms earned \$1.5 billion in income and of those earnings, spent \$1.47 billion with local businesses.

The harbor area is where all major cargo vessels come into the Port of Portland, taking goods in and out of the region to other cities around the globe. This data does not include other regional ports such as the Port of Vancouver and the Port of Kalama.

This study also confirms that the Port and Portland Harbor entities have been nimble in staying ahead of global trends in transportation and adapting to the changing trade market, important factors in the region's long-term trading success. Portland's intermodal connectivity – serving as a hub for goods moving from sea, to rail, to river, to road – gives Portland-metro a competitive advantage, but new investments are needed to stay competitive.

For example, Port investments designed to expand auto-import facilities and attract a major potash trader have paid off with new investments and jobs in the region. Portland is now the second largest auto import gateway on the West Coast and the largest potash exporter in the U.S.

KEY FINDINGS

- ▶ More than 7,000 jobs – from longshoremen and barge operators to accountants and administrators – are directly tied to harbor activities.
- ▶ An additional 4,000 jobs are indirectly supported by harbor activities, such as vendors who supply goods or services to harbor businesses but are not directly engaged in trade.
- ▶ Another 7,000 jobs throughout the region are supported by the spending of employees of harbor businesses, also called induced jobs.
- ▶ About half of direct trade-related jobs are with the Port of Portland.
- ▶ Harbor-related jobs are generally higher paying than the average wage for the Portland-metro region, sometimes substantially so.

BY THE NUMBERS:

18,000.

Number of Portland regional jobs supported by economic activity in the Portland Harbor in 2011.¹

\$1.5 billion.

Collective income of harbor-related businesses in 2011.

\$1.47 billion.

Income earned by Portland-area businesses and workers as a result of spending by harbor-related businesses in 2011.²

\$140 million.

Amount harbor activities generated in taxes to support state and local services in Oregon and Washington.

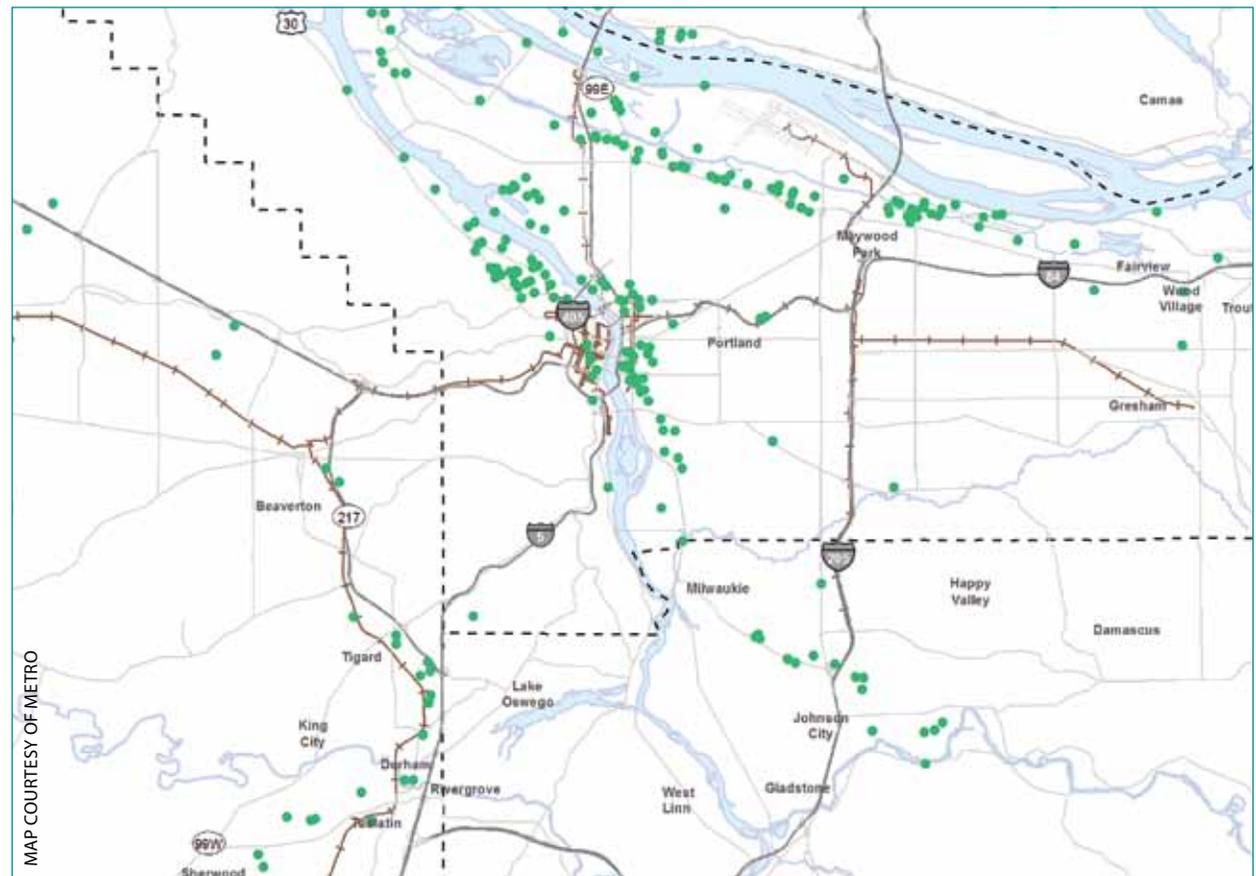
¹ Includes direct, indirect and induced jobs, as defined in the study. As of 2010, the Port of Vancouver supported about 4,000 such jobs, for a harbor-wide total of 22,000.

² Includes direct, indirect and induced income, as defined in the study.

- ▶ Harbor-related business spending amounted to \$367 million in direct economic activity such as payroll for employees and procurement of local goods and services in the Portland-metro area.
- ▶ Harbor-related businesses generated an additional \$200 million in indirect economic activity in 2011.
- ▶ Spending by harbor employees spurred another \$900 million in induced economic activity.
- ▶ Harbor-generated corporate, income and property tax payments to state and local government totaled \$140 million in 2011. That is about half of the city of Portland's 2013-2014 operating budget for Police and Fire Bureaus combined.
- ▶ While the Port of Portland receives approximately 4 percent of its total operating revenues from taxes—one of the lowest public-finance rates among all ports in the Pacific Northwest—its terminals support economic activities that generate about \$6 in taxes for every dollar of tax revenue the Port receives.

Figure 5: Marine industrial businesses purchased goods and services from local employers

A review of just five of the large traded-sector firms in the Portland Harbor shows how their contracts for supplies and services bolsters the local and regional economy for family and small-to medium-sized businesses. Just five firms contract with more than 288 local employers.



DID YOU KNOW?

Portland is the fifth largest auto import gateway in the nation. About 20 percent of Toyota vehicles imported through Portland stay in the Pacific Northwest. About 80 percent are loaded onto trains or trucks and delivered to 23 states in the West and Midwest. Each auto imported introduces \$271 dollars in the Portland economy. Last year 284,138 autos were imported through Portland.

As the Port looks forward, it anticipates expanding facilities for auto exports. The first shipment of Fords manufactured in the U.S. and headed to South Korea left Portland in 2012; soon Fords will also be exported to China. More manufacturers are producing cars in the U.S. and with increased Asian demand, this may be a source for future growth.

An economic analysis of trade-based business

OVERVIEW

This last study takes a deeper dive into businesses that are engaged in trade-related activity and how those activities then translate into dollars spent in the local Portland-metro economy.

By looking at the relationships between large local marine industrial businesses and small- to medium-sized businesses that serve as their vendors and suppliers, one can see the connection between the traded and local sectors. Five such firms were interviewed about their spending on direct and indirect materials, services and capital over a two-year period, 2011 and 2012. In those two years, the five marine industrial businesses spent \$1.29 billion with more than 50 percent of that spent with local firms, as shown in **Figure 5**.

KEY FINDINGS

- ▶ Marine industrial businesses have a significant economic impact on local business. In 2012 alone, the five firms surveyed spent \$660 million on goods and services, of which more than 40 percent, or \$264 million, was infused into the local economy.
- ▶ More than 80 percent of the \$264 million in local spending by these harbor firms is for raw materials and components, and professional services, maintenance, catering and other services; additional expenditures

include machinery, spare parts and construction materials.

- ▶ Local firms supported by these dollars include those involved in planning and architecture, engineering, law, transportation, graphic arts/media production, software and information technology, advanced manufacturing plant production equipment, energy and utilities, and skilled trades such as electricians.
- ▶ About 288 local employers are supported by these harbor businesses, some of which include: Platt Electric, Albina Pipe Bending, Oak Harbor Freight, Oregon Tractor, Milwaukie Crane & Equipment, Swan Island Sandblasting, West Coast Metals, Baxter Auto Parks, Parr Lumber, Elmer's Flag and Banner, Legacy Laboratory Services, Cascade Architectural & Engineering, Integra Telecom, Rodda Paint, Elephants Delicatessen, and others.
- ▶ Even if spending on capital goods, materials and supplies goes to national or international firms, many maintain a local presence such as a distributor, service center, or local warehouse, with local employees and representatives.

The economic analysis projects that all marine industrial businesses spend between \$6-7 billion a year, driving a significant portion of the local-sector economy.

BY THE NUMBERS:

\$1.29 billion.

Amount the five marine industrial firms spent in 2011-12 to procure materials, capital/plant equipment, and services to produce and deliver their final goods and services to markets locally, across the continent or overseas.

\$6-7 billion.

Projected aggregate spending annually by all marine industrial businesses, based on this study.

+50%.

Proportion of these dollars spent locally/regionally.

288.

Approximate number of local employers from which goods and services are commonly purchased by these firms.

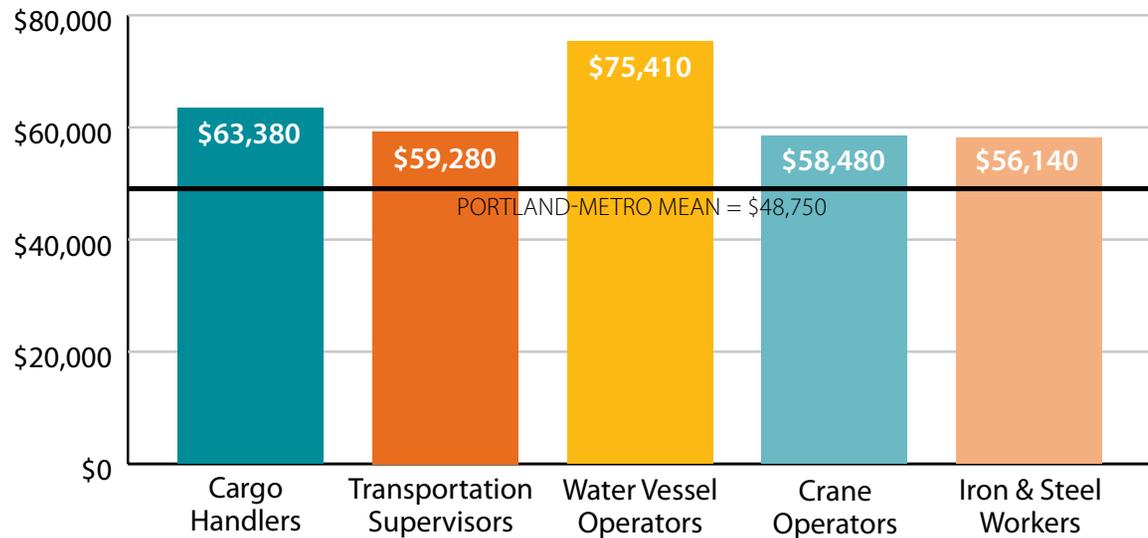
Why we need to focus on trade

Together, the Portland Harbor, marine industrial businesses, and the tens of thousands of other businesses engaged in international trade are helping the Portland-metro and the state's economy grow. Oregon and the Portland-metro region have a lot at stake in the global marketplace. Besides proving vital to many businesses' survival during the most recent recession, international trade is now helping rev the engines of our state and regional economy. In an increasingly integrated global market where more than 95 percent of customers live outside the U.S. providing the opportunities for future business growth, international trade will also be essential to our region's future success.

Besides the obvious bottom-line benefits of trade, access to global supply chains enables Oregon manufacturers and service providers to make the best products at the lowest cost. And trade directly creates thousands of family-wage jobs and indirectly supports thousands more.

Ensuring "Made in Oregon" (and "Grown in Oregon") products and services remain competitive in the international marketplace will require federal and state efforts, but it is essential that local actions don't thwart efforts for our businesses to compete globally. That means supporting continued investment in marine, air and ground transportation facilities; reducing barriers to the development of industrial land; supporting the development of appropriate tax policies, and new trade agreements.

Figure 6: Higher than average wages for Portland Harbor workers



Source: ECONorthwest, with data from U.S. BLS 2013

Additionally, the Portland-metro region needs to focus on ways to support the businesses engaged in the activities that make trade happen – specifically marine industrial businesses. We can foster that growth, and in turn create higher wage local-sector jobs, see **Figure 6**, by facilitating more marine industrial land, such as the annexation of West Hayden Island.

The Value of Jobs Coalition will continue to monitor international trade activity and how the region is measuring up. Clearly, our state and region are leaders in international trade; it is an economic bright spot that we can grow. Greater Portland, Inc. and its work with Brookings Institution on the Export Initiative should have

the region's full support. Our region should also lend its support to its Congressional delegation to ensure the passage of more Free Trade Agreements, as the more markets that open up, the greater access we have to selling our goods and services. Our future economic growth depends on global fluency and efficient market access for local, regional and state businesses.

Our coalition wants to grow the region's economic strength because it means more jobs and higher wages, which creates healthy families and more robust public services. All in all that means a better quality of life for the region's residents. International trade is a path forward to that goal.

Thank you to our partners



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- ▶ Portland-Metro's Manufacturing Sector study
- ▶ Land Availability: Limited Options study
- ▶ Portland-Metro's Traded Sector study
- ▶ 2011 Check-up on the Portland-Region's Economic Health
- ▶ International Trade study
- ▶ 2010 Check-up on the Portland-Region's Economic Health

About the Value of Jobs Coalition

The Value of Jobs Coalition is based on the premise that in order to have a prosperous, healthy Portland region with a good quality of life, we need more private-sector jobs. The coalition began with an economic study in the fall of 2010, which uncovered troubling economic data about the Portland-metro region. A number of other studies have followed that highlight the region's economic opportunities and challenges. Find out more at:

www.valueofjobs.com.

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