

# Economic Linkages from Marine Industrial Businesses

Prepared for:



**PORTLAND**  
**BUSINESS ALLIANCE**  
*Commerce • Community • Prosperity*

**August, 2013**



## Executive Summary

The motivation for conducting this analysis is an interest in better understanding the relationships between large local businesses and the small to medium sized businesses who serve as vendors and suppliers to the larger industries, and to quantify this to the extent possible. Five marine industrial firms (firms located in the Portland Harbor area who rely on access to waterborne transportation modes) were interviewed regarding their spending on direct and indirect materials, services, and capital goods during 2011 and 2012. In order to secure complete information, the firms requested anonymity to protect their competitive interests. The data submitted for analysis by these firms was analyzed by these spend categories as well as by where the spending occurred: in the local area, regionally, nationally, or internationally.

Major areas of research interest included aggregate spend by category and geography, however interesting linkages were demonstrated between marine industrial firms and other enterprises in the Portland market through this research and analysis. For the two calendar years under examination, these five firms spent in excess of \$1.29 billion in procuring materials, capital/plant equipment, and services to produce and deliver their final goods and services to markets near and far. Aggregate spending increased by 5% year-over-year and became significantly more localized, from 49% of spending in 2011 falling within the combined local and regional areas, to 56% in 2012, an increase of over \$63 million with nearly all of that deriving from an increase in local spending (regional spending remained nearly constant).

The sampling represents roughly 10% of the approximately 20,000 direct jobs in the Portland Harbor area (Martin Associates, 2006), thus extending these outcomes as representative of the Harbor area on this basis, one might reasonably conclude that aggregate spending by such firms is on the order of \$6 billion to \$7 billion annually. The reader should also bear in mind that this analysis did not examine firm outlays for direct and indirect labor, taxes, debt service, and so forth – this analysis is limited to examining firm to firm interaction in procurement markets.

Marine industrial firms sampled demonstrated rich, complex connections and economic linkages to a variety of local sectors. Spending occurred in a variety of local markets

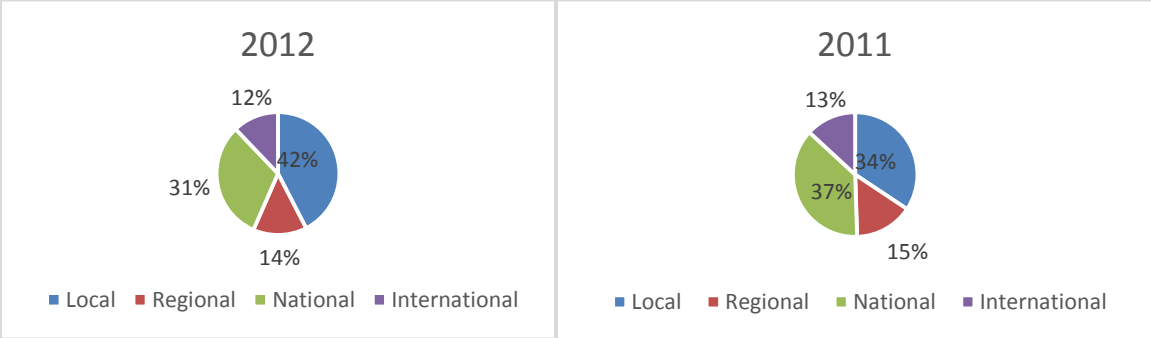


as firms procured the services of planning and architecture firms, law firms, engineering firms, trades such as electricians, graphic arts/media production firms, suppliers of advanced manufacturing plant production equipment, transportation companies, suppliers of software and information technology, energy and utilities, and so forth. Many vendors/suppliers of these firms are common among the sample. It is evident that marine industrial firms engaged in a wide array of activities are intrinsically linked to the health of the local and regional economy.

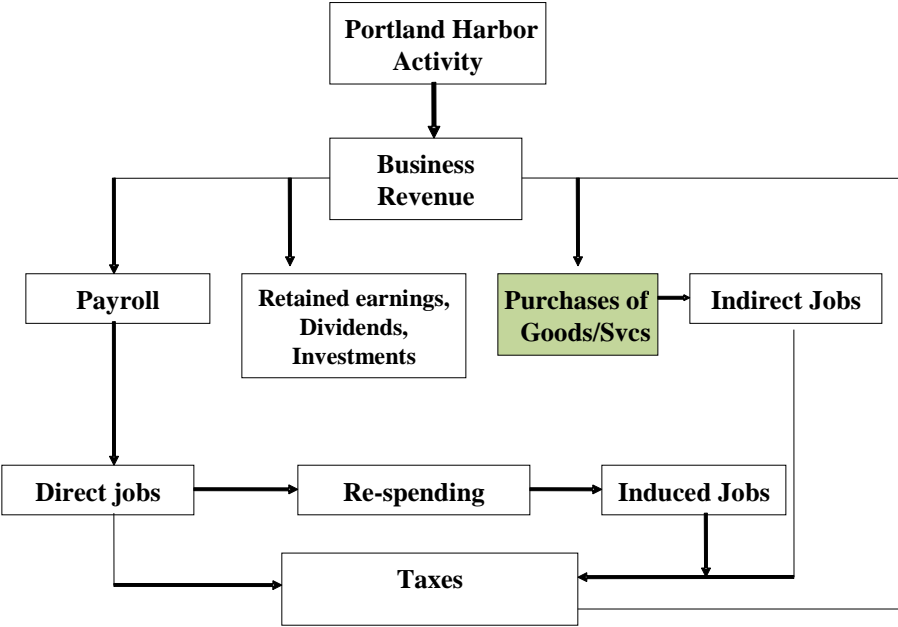
**Marine Industrial Businesses have a significant impact on local business**

Businesses in the Portland harbor earn revenue from the goods and services they sell. These firms then spend this revenue in a number of ways that can be grouped into just a few buckets (see figure below). The recent analysis for the Portland Business Alliance identifies the economic relationships between these businesses and other sectors of the local economy. The results show that those harbor firms surveyed are reliant upon a variety of local businesses for the goods and services they need every day to keep their businesses running.

The Portland Business Alliance Study looked solely at the purchases of goods and services to see how the revenue from harbor activity flows to other local employers. While much of this spending is local (42% in 2012) creating local jobs [indirect jobs in economic terms], some does leave the region.



**FLOW OF PORTLAND HARBOR BUSINESSES’ REVENUE THROUGH THE LOCAL ECONOMY**



- In 2012 the five firms surveyed spent \$660 million on goods and services, an amount nearly equal to the regional investment in Tri-Met’s new orange line (half the total construction cost).
- Of this re-spending by these harbor businesses more than 40 percent of it (\$280 million, the equivalent of 3.5 Rose Festivals) is infused into the local economy.
- More than 80 percent of the re-spending by these harbor firms locally (\$230 million) is in the areas of raw materials and components, and professional services, maintenance, catering and other services.
- Other expenditures include machinery, spare parts, and construction materials.
- Common among the firms surveyed were 288 local employers from whom they purchase goods and services (see Appendix 3 for a sample listing of those firms). Of these, 30 are suppliers of capital goods, 28 are suppliers of direct materials, 115 are suppliers of indirect materials, and 114 are providers of services.

Examples of local employers from whom subject firms purchase goods or services:

- Catering/Food and Lodging: Elephant’s Delicatessen, Oxford Inn & Suites



- Construction, Equipment, Maintenance, and Repair: Buckaroo Thermoseal, Christenson Electric, Milwaukie Crane & Equipment, Rodda Paint
- Manufacturing Inputs, Components, and Services: Albina Pipe Bending, Evraz, Swan Island Sandblasting, West Coast Metals,
- Supplies and Parts: Baxter Auto Parts, General Tool & Supply, Parr Lumber, Vancouver Bolt & Supply
- Technology/Communications: Centurylink, Integra Telecom
- Transportation Equipment, Services, and Repair: FedEx, Les Schwab, Oak Harbor Freight Lines, Oregon Tractor, Redmond Heavy Hauling
- Miscellaneous: Elmer’s Flag and Banner, Legacy Laboratory Services, Portland Community College

## Introduction

In March, 2012, Martin Associates (Lancaster, PA) prepared a report for the Port of Portland entitled, “The Local and Regional Economic Impacts of the Port of Portland, 2011.” That report summarized three separate studies, including:

- The Economic Impacts of the Portland Harbor
- The Economic Impacts of the Real Estate Tenants of the Port’s Business and Industrial Parks
- Economic Impacts of PDX and General Aviation Airports

As follow up work, Martin Associates produced a report in July, 2012 entitled, “The Local and Regional Economic Impacts of Portland Working Harbor, 2011.” This latter report measured impacts related to industrial land use in the Portland Harbor such as employment (direct, induced, and indirect), personal income, direct business revenue, and tax revenue (state, county, and local).

The Portland Business Alliance retained One Northwest Consulting, LLC (ONWC) to recruit a sample cohort of firms in the Portland Harbor area engaged in marine industrial activity, generally defined as enterprises whose proximity to and connection with marine infrastructure for transportation purposes is “business critical”. ONWC was tasked with conducting



an analysis of annual procurement spend and performing analysis of the economic links between the sample cohort and local enterprise, including various small and mid-sized businesses in common among the sampling distribution as vendors. Of interest was the categorization of procurement expenditures by type or purpose, and the geographic location of the associated vendors. Procurement expenditures were categorized into four major areas:

- Direct materials – defined as material inputs to final goods and services; this can be unprocessed raw steel, energy such as electricity and natural gas, power plants/engines and components such as pumps and motors, finished steel and metal alloy products, and propulsion and navigation equipment and related components
- Capital goods – defined as investment on plant, property, and equipment; examples include investments in IT systems (both hardware and software systems), production machinery such as plasma cutting tables and punches, buildings and structures, and mobile machinery for material handling such as forklifts and excavators
- Indirect materials – defined as items indirectly associated with final goods and services, such as supplies not tied to a single specific project or output; this includes fasteners and bolts, bulk paints and coatings, welding supplies, production machinery wear parts, valves and fittings, lumber and pallets used for packing and shipping, and some tools and related parts/components
- Services – which includes professional services, skilled trade services, repairs, and maintenance services; examples of services procured include architecture, planning, engineering, law, environmental consulting and testing, transportation, graphic arts, media production, public affairs/advertising, accounting and financial services, and skilled labor/trades

Procurement expenditure was also segmented geographically into one of four categories:

- Local – comprised of Clackamas, Multnomah, and Washington counties in Oregon, and Clark county in Washington
- Regional – comprised of the remaining areas of Oregon and Washington, excluding the aforementioned local area



- National – comprised of the United States and its territories, excluding Oregon and Washington
- International – comprised of all non-US spend

### **Sample Recruitment and Description**

Portland Business Alliance suggested a list of firms to participate in the study on the basis of location in Portland’s industrial harbor area and related marine industrial land use, as well as likelihood of willingness to share proprietary business information for the purpose of the study effort. Firms expressed a willingness to participate and were generally supportive of this analysis, but willingness for direct attribution and identification as study participants varied significantly among firms, with strong tendency towards anonymity to protect individual company’s competitiveness. The data are therefore reported in aggregate, illustrating general procurement tendencies and associated economic impacts across firms without singling out a single participant.

General descriptions of firm business activity include: heavy civil and marine construction; marine vessel repair and construction/manufacture; steel fabrication; metals processing; bulk material handling; general manufacturing; steel/metals products manufacturing; marine terminal operations. Cohort firms are located on large lot, industrial lands characterized as marine and rail transportation dependent, and also relying on freight truck/highway access.

### **Data Collection, Processing, and Analysis**

The five participant firms were asked to submit their expenditures on procurements (raw materials, utilities, work-in-process, finished goods purchases, professional services, skilled trade services, durables, non-durables, materials, supplies, capital goods, etc.) for calendar years 2011 and 2012 . This approach excludes firm expenditure on direct and indirect labor, taxes, depreciation, amortization, and payments to shareholders such as dividends. This is important in examining firm to firm interaction, particularly in establishing the local linkages between firms associated with procurement activities.



In geographically segmenting the data, an issue in determining whether spend qualified as local versus a different category was encountered. Many firms purchase capital goods, services, materials and supplies from national and international firms, remitting payment to a non-local location such as a central accounts receivable processing center associated with a particular vendor. However, many of these firms provide services to customers via a local presence in the form of a distributor or local warehouse, with local employees and representatives. This is done in order to reduce fulfillment cycle times and provide competitive levels of responsiveness. Where a vendor possessed such a local presence, the associated procurement spend was categorized as local, versus another geographic designation.

Another point to bear in mind is that one firm's direct material is another firm's capital good. For instance, a firm using concrete to construct a structure as a final good for a customer considers the concrete to be a direct material. Spending on concrete by the customer would be considered a capital good or capital expense were they to procure it themselves. Thus, perspective is important, particularly considering the rich complexity of the economic linkages of these firms, as well as the self-organizing, symbiotic relationships which firms have developed with each other over time. Some firms' business is centered on a continuous process such as one might envision in the production of paint in bulk liquid form, whereas other firms employ a job costing approach, such as what one would expect from an engineering and construction firm contracted to build a structure. The nuance between these is significant, as it is much easier to consider job costing formats using discrete boundaries whereas in continuous process production this may be extremely difficult. The emerging level of detail is reflected in the procurement data: job costing format firms' data was substantially more detailed and granular, making the distinction between direct and indirect materials much simpler.

Participant firms submitted data in a variety of formats, primarily submitting raw data in Microsoft Excel, having queried a purchasing system or equivalent to generate the data. At a minimum, firms submitted the vendor legal name and related expenditure amount for calendar years 2011 and 2012. Aggregate results are reported in Appendix 1. Generalizability of these results is limited due to the small sample size, however this sampling represents approximately





10% of the direct employment in the Portland Harbor area (based on the findings of Martin Associates' July, 2012 report).

### **Dynamic Structures**

When a firm receives revenue, that revenue is employed by the firm in a variety of uses which establish the linkages between the subject firm, firms considered vendors to the subject firm, and other economic sectors. Consider the illustration in Appendix 2. Firm revenues flow to the following categories:

- Cost of goods such as direct and indirect materials, and certain services
- Administrative expenses known as SG&A (selling, general, and administrative) which include payment of wages to management and executives, philanthropic activities, some capital expenditures, and some services which are difficult to tie to the production of specific goods and services (SG&A tends to be a large “bucket” for expense items which do not easily lend themselves to division among units of output)
- Direct and indirect labor
- Interest/debt service
- Transfers to shareholders (known as dividends)
- Retained earnings
- Payment of taxes
- Depreciation and amortization charges

The connection between firm “financial health” and the well-being of the public sector can be demonstrated by examining the flows and linkages (the shaded box on Exhibit II): for this purpose we will call the system of linkages “Cycle of Firm’s Revenue”.

Philanthropy clearly constitutes a public good. Employee wages (direct, indirect, and SG&A) drive personal income, which bears strong linkages to the public sector. Additionally, there is likely a propagation mechanism in financial markets (hypothesized here) connecting a firm’s debt service (interest payments) and distributions to shareholders (dividend payments) to societal well-being. Retirement investment accounts and portfolios such as 401k and 457 plans, and Public Employee Retirement Systems (PERS) investment generally hold



shares in publicly-traded firms (which distribute dividends to shareholders and whose stock value growth benefits shareholders) and financial firms (who received debt service payments from firms, both privately-held and publicly-traded). It seems reasonable to conclude that good firm financial performance is beneficial in this way to retirement systems of both public sector and private sector workers.

Of interest in this research is the connection to other firms, considered vendors or suppliers to the subject firm, from whom the subject firm procures direct and indirect materials, services, and capital goods. A portion of the subject firm's revenue flows to the vendor/supplier firms, whose revenue also flows through the cycle illustrated. This cycle repeats ad infinitum.

The public sector derives revenues through the payment of taxes on corporate income and other things such as real property, personal income, and taxes on dividends and interest. These revenues are used to support public services, fund schools, and build infrastructure. A firm's decision to invest in their capital stock in a given area depends not only on market conditions, but local and regional "business climate" conditions, largely signaled on a community's willingness to invest in infrastructure, education, and the level and efficiency of public services provided. Weak signals in these areas do not inspire confidence in firms' willingness to invest in a particular area, and the variation in the quality and strength of these market signals given by communities largely constitutes the competitive environment in which states and municipalities strive to attract capital investment.

## Discussion

Linkages to smaller enterprises were readily evident through an analysis of the data. Large industrial firms avail themselves of professional services as well as services of skilled trades, primarily locally sourced (except in somewhat rare cases where highly specialized expertise was required). Examples of professional services procured include: technical engineering (information technology, civil, and structural), architecture, environmental consulting/engineering, law, public accounting, human resources/training, occupational health and safety consulting, financial services, and general business consulting/advisory (such as business process engineering). Skilled trade services procured include:



plumbing, electrical, general construction (earth-moving and excavating), specialty machining and tooling, sheet metal, HVAC/refrigeration, and mechanical repair and maintenance services.

Firms sampled also availed themselves of the services of local small businesses as varied as: sign and awning businesses; freight transportation services (by water and truck); restaurants, delicatessens, and catering; equipment rental; mail services and printing; florists; and site security.

Examples of Service sector firms commonly engaged by the subject firms include: Bernert Barge Lines, Carlson Testing Inc., Cascade Architectural & Engineering, Integra Telecom, and Morgan Industrial Inc.

Local procurement of raw materials, intermediate production inputs, and capital goods were also evident in the data. Examples include:

- Steel and other metals purchased from local steel service centers, mills, and other local sources
- Concrete purchased from local suppliers for capital projects to construct new plant and equipment, or in the case of the marine-related construction firm surveyed – as an input to delivery of a final good/service
- Fabricated/machined steel parts and components sourced locally for capital projects and as intermediate inputs to final goods and services
- Machinery, plant equipment, power systems, and material handling equipment (all capital goods) purchased from a local manufacturer, dealer, or distributor

Firms commonly engaged as vendors among the sample include: Evraz Oregon Steel Mills Inc., Farwest Steel Corp., LaGrand Industrial Supply Co., Oregon Ironworks Inc., and Pape Material Handling Inc.

Geographic analysis of the spending data revealed that firms demonstrate a preference to working with firms in the local and regional area due to proximity, ease of obtaining ongoing service, and the value of enlarging ties and relationships to the local market and community. Where spending occurred nationally and internationally, this was typically because the goods and services sought were not locally available. A large amount of the international service spending, for example, consisted in payments to foreign flagged marine vessels and



companies for export transportation and logistics services. Additionally, certain legal and technical services were procured by the firms in 2011 – 2012 which comprises highly-skilled expertise not locally available. Some raw material components are highly specialized and not manufactured locally, such as brake systems parts for transportation equipment. Likewise, certain capital goods are produced only in select areas in the national and international geography, such as specialized manufacturing machinery, software systems, technical and navigational components of marine vessels, environmental control systems for storm water treatment and management, and power plant/engine equipment and components.

Roughly 80% of the indirect materials these firms purchased were from local distributors and suppliers. Some examples of these include: safety supplies, paint and coatings, bolts and fasteners, industrial cleaning supplies, fuels and gases (to operate equipment), welding supplies and gases, hardware, hand/power tools, coffee and drinking water service, employee gifts and recognition incentives, auto and equipment parts, restaurant and food services, and office supplies. Expenditures in this area by these five firms alone amounts to tens of millions of dollars annually.

Though only two years of data were provided and analyzed, a notable year over year increase in spending on capital goods, indirect materials, and services stood out. The rate of change in capital goods spending was much lower than that seen in indirect materials and services, an expected result considering the longer time frames involved in planning and executing capital spend. Capital spend is considered less elastic in the short-run (i.e. less than one year), though long run capital spending trends respond, with some lag, to market conditions. This should be an intuitive result: many capital projects in the industrial sector are multi-year projects, and once committed generally follow through to completion. This being the case, it takes a longer period of time for firms to respond to both favorable and unfavorable market conditions as reflected in capital spending. Spending on direct and indirect materials is much more responsive in the short run to business cycle changes and perturbations, regardless of the direction of the change (increase in output or decrease).

An important consideration with respect to direct materials is seen in the proportion sourced outside of the local area. Considering that direct materials (or raw materials)



are largely imported into the local market (about two-thirds originates outside of the local area) for the purposes of value-added manufacturing in the production of final goods and services, this seems to speak to the importance of robust transportation infrastructure and the public investment required to facilitate efficient movement of these goods. Additionally, because they constitute the raw material inputs to final goods and services, they are generally of significantly lower value relative to the final good or service, and thus are highly sensitive to changes in transportation costs, such as are induced by roadway congestion and volatility in energy markets (rapidly rising fuel costs).

## **Conclusion**

Five marine industrial firms were surveyed, which represent approximately 10% of direct jobs in the Portland Harbor. Wages for employment in Portland's marine industrial areas associated with trade, transportation, and manufacturing tends to be about 5% higher than the average wage level in the Portland region (Port of Portland Columbia Multimodal Corridor Study, 2012). Key findings include:

- Much of the procurement spending of these firms is in the local area (about 42% in 2012), with an additional substantial proportion coming from Oregon and Washington outside of the local area (14% in 2012), helping to drive job creation locally and regionally.
- Businesses in the Portland Harbor area are characterized as having profound, complex long-term economic connections to a variety of local firms including:
  - Planning and architecture firms
  - Law firms
  - Engineering firms
  - Skilled trades such as electricians
  - Graphic arts/media production firms
  - Suppliers of advanced manufacturing plant production equipment
  - Transportation companies
  - Suppliers of software and information technology



- Energy and utilities
- Firms purchase capital goods, services, materials and supplies from national and international firms, many of whom maintain a local presence such as a distributor, service center, or local warehouse, with local employees and representatives (in many such cases, firms remit payment to a non-local location such as a central accounts receivable processing center).
- Geographic analysis of the spending data revealed that firms demonstrate a preference to working with firms in the local and regional area due to proximity, ease of obtaining ongoing service, and the value of enlarging ties and relationships to the local market and community. In this way, firms form vertically-related clusters of industrial sectors, achieving scale and efficiency through the collocation of services and specialization of related activities.
- The activity of marine industrial firms in Portland in producing final goods and services generates hundreds of millions of dollars of revenue for local businesses annually through economic linkages.

Firms are competing in an increasingly volatile, uncertain global marketplace. Policy stability and certainty results in a public good as beneficiaries of the firms' economic activity. The rate of local spending grew faster than the change in overall spending year-over-year, suggesting that firms find efficiency in proximity and other aspects of local market procurement.

The activity of marine industrial firms in Portland in producing final goods and services generates hundreds of millions of dollars of revenue for local businesses annually through economic linkages. The ability of these key industrial firms to locate in Portland and achieve the necessary scale to compete globally derives from an interactivity of production factors, including land (appropriate sites to conduct business activity, complete with amenities and site characteristics such as water, rail, and highway access), labor (skilled professional and trades), and capital.

Portland (and regional) residents and businesses benefit from the many healthy marine industrial firms located within the harbor. Annually, these firms spend hundreds of millions of



dollars on goods and services with local businesses. The study confirmed that there is a strong economic linkage between big and small firms.

This analysis also illustrates the importance of considering indirect effects of public policy, in particular as they apply to the trade-offs between public investment in industrial reinvestment and expansion. The impact of land use or other policies and their specific impact on industrial development decisions have wider, aggregate economic implications which should be given consideration. When the effects of industrial development are considered in terms of procurement linkages, personal income, and employment (direct, induced, and indirect), an understanding of a significantly interlinked, interdependent economy emerges.



**Appendix 1**  
**Aggregate Procurement Data of Sample**

	<u>2012 Spend</u>		<u>2011 Spend</u>	
	Amount	Proportion	Amount	Proportion
<b>Direct Materials</b>				
Local	\$121,676,718.27	31%	\$126,247,855.38	27%
Regional	\$55,540,720.46	14%	\$73,117,590.90	16%
National	\$160,258,221.42	41%	\$201,088,333.52	44%
International	\$56,275,305.72	14%	\$59,991,510.37	13%
<b>TOTAL</b>	<b>\$393,750,965.87</b>	<b>100%</b>	<b>\$460,445,290.17</b>	<b>100%</b>
<b>Capital Goods</b>				
Local	\$8,707,653.10	45%	\$8,673,134.40	60%
Regional	\$2,761,046.06	14%	\$2,531,092.16	18%
National	\$7,205,226.91	37%	\$2,908,180.49	20%
International	\$676,690.29	3%	\$307,011.19	2%
<b>TOTAL</b>	<b>\$19,350,616.36</b>	<b>100%</b>	<b>\$14,419,418.24</b>	<b>100%</b>
<b>Indirect Materials</b>				
Local	\$40,693,241.42	82%	\$21,232,594.02	79%
Regional	\$4,273,852.99	9%	\$2,461,732.39	9%
National	\$4,690,663.32	9%	\$3,166,615.53	12%
International	\$184,311.79	0%	\$77,576.18	0%
<b>TOTAL</b>	<b>\$49,842,069.52</b>	<b>100%</b>	<b>\$26,938,518.12</b>	<b>100%</b>
<b>Services Procured</b>				
Local	\$108,426,986.85	54%	\$60,560,288.04	48%
Regional	\$33,362,383.58	17%	\$17,202,489.93	14%
National	\$35,704,977.60	18%	\$25,079,799.57	20%
International	\$21,573,835.04	11%	\$24,191,778.90	19%
<b>TOTAL</b>	<b>\$199,068,183.07</b>	<b>100%</b>	<b>\$127,034,356.44</b>	<b>100%</b>
<b>AGGREGATE SPEND</b>				
Local	<b>\$279,504,599.64</b>	<b>42%</b>	<b>\$216,713,871.84</b>	<b>34%</b>
Regional	<b>\$95,938,003.09</b>	<b>14%</b>	<b>\$95,312,905.38</b>	<b>15%</b>
National	<b>\$207,859,089.25</b>	<b>31%</b>	<b>\$232,242,929.11</b>	<b>37%</b>
International	<b>\$78,710,142.84</b>	<b>12%</b>	<b>\$84,567,876.64</b>	<b>13%</b>
<b>TOTAL</b>	<b>\$662,011,834.82</b>	<b>100%</b>	<b>\$628,837,582.97</b>	<b>100%</b>

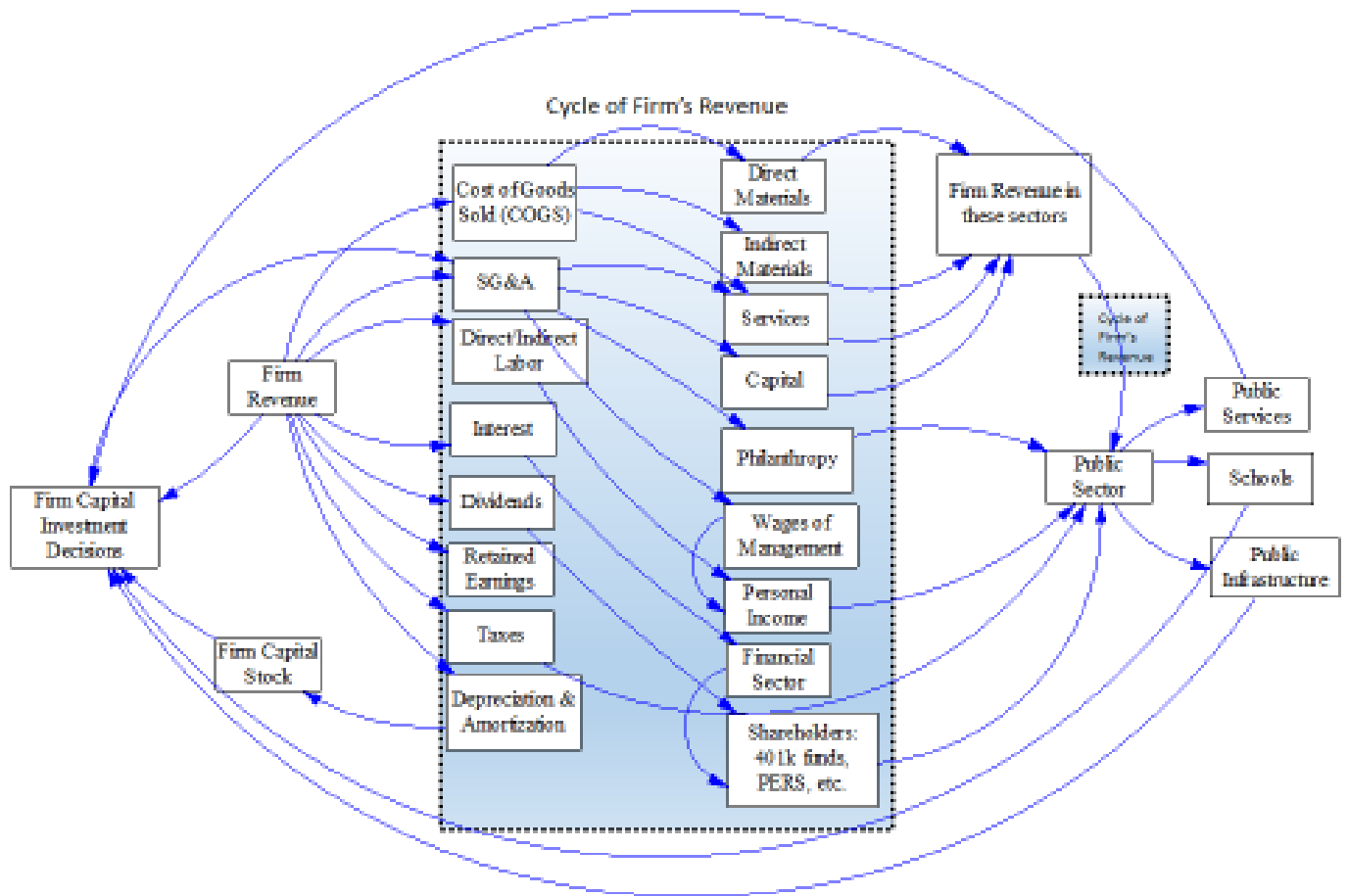
Notes on data processing: The level of data processing performed by ONWC varied based on a respective firm's reporting capability robustness. One firm supplied summary data in the final format, as this was relatively simple for them to generate. In one case, a firm supplied ONWC with annual 1099 tax reporting data in Adobe pdf format, requiring the data to be extracted and re-entered into Excel format. Using internet search engines, each vendor's legal name, line of business, and geographic location(s) were ascertained. Perfect accuracy is not assumed as a result of this data analysis process.





## Appendix 2

### System Dynamics Model of Procurement



### Appendix 3

**Table Listing Examples of Local Businesses in Common among Sample**

<u>Company Name</u>	<u>Street</u>	<u>City State</u>	<u>Zip</u>	<u>Description</u>	<u>Category</u>
ACME Construction Supply	330 SE Salmon St	Portland, OR	97214	Headquartered in Portland with multiple locations in different states; Sells power tools and building supplies	Indirect Materials
Advanced Finishing Systems	2304 N Killingsworth St	Portland, OR	97217	Headquartered in Portland with additional location in Kent, WA; sales and service of equipment and supplies for industrial coating, sealing, and finishing processes; designs and builds custom finishing equipment and systems; general contractor for on site building and installation of systems	Capital Goods
Ahern Rentals	3836 NE Columbia Blvd	Portland, OR	97211	Headquartered in Las Vegas, NV with several branch locations in many states; equipment rental company serving commercial, residential, industrial, and public market segments	Services
Air Liquide	6529 NW Front Ave	Portland, OR	97210	International supplier of industrial gases headquartered in France with presence in 80 countries; two local branches	Direct Materials
Airgas	3632 NE Columbia Blvd	Portland, OR		Supplier/distributor of industrial gases, machinery, tools, and supplies headquartered in Radnor Township, PA; several local branches	Indirect Materials
Alaska Copper & Brass	2440 SE Raymond St	Portland, OR	97202	Headquartered in Kent, WA with local location and other branch locations in CA and BC, Canada; supplier of metal products and fabrication services	Direct Materials
Albina Pipe Bending Co	12080 SW Myslony St	Tualatin, OR	97062	Single location company headquartered in Tualatin, OR; supplier of bent steel, metal tube bending, and pipe bending products and services	Services
Alliance Steel Distributors	3000 SE Hidden Way	Vancouver, WA	98661	Steel distributor/service center with single location/headquarters in Vancouver, WA	Direct Materials
Allied Electronics	6700 SW 105th Ave	Beaverton, OR	97008	Distributor of electronic components and electromechanical products with over 50 locations in US and Canada; headquarters in Ft. Worth, TX	Indirect Materials
AMEC	7376 SW Durham Road	Portland, OR	97224	Global engineering, project management, and consultancy company headquartered in London, UK with local office	Services



American Equipment Co	89 NE Columbia Blvd	Portland, OR	97211	Sales, rental, and service of industrial cleaning equipment such as pressure washers, parts washers, and steam cleaners; single location/headquarters in Portland, OR	Indirect Materials
American Metal Cleaning	9940 N Vancouver Way	Portland, OR	97217	Single location company headquartered in Portland, OR; provides industrial metal cleaning, stripping, and recovery services	Services
American Steel	525 S Sequoia Pkwy	Canby, OR	97013	With multiple locations in OR, WA, and CA with headquarters in Canby, OR, company is a metals processor and distributor/service center	Direct Materials
Anixter Inc	5107 NE 158th Ave	Portland, OR	97230	Global company in over 50 countries with two local locations headquartered in Glenview, IL; supplier of communications and security products, electrical and electronic wire and cable, fasteners, and components	Indirect Materials
Apex Laboratories	12232 SW Garden Pl	Portland, OR	97223	Chemical, mechanical, metallurgical, and environmental testing services provider located in Portland, OR	Services
Applied Industrial Technologies	5041 NW Front Ave	Portland, OR	97210	Global supplier/distributor of industrial products and supplies headquartered in Cleveland, OH	Indirect Materials
Argo International	13481 SE Johnson Rd	Portland, OR	97222	Global supplier/distributor of new units and spare parts for industrial motors, drives, controls, and pumps headquartered in New York, NY with a local office	Indirect Materials
Arjae Sheet Metal	8545 SE McLoughlin Blvd	Portland, OR	97222	Sole proprietorship in Portland, OR; sheet metal fabrication, commercial and industrial installation, HVAC/R service and repair	Direct Materials
Associated Hose Products	6326 NE Columbia Blvd	Portland, OR	97218	Single location distributor of industrial hose, fitting, and assembly products	Indirect Materials
Atlantic & Pacific Freightways	3001 SE Columbia Way	Vancouver, WA	98661	Locally-based truck transportation and logistics company operating throughout the US and Canada	Services
Atlasta Lock & Safe Co.	702 SE Grand Ave	Portland, OR	97214	Single location business providing locksmith services	Services
Batteries Plus	4812 SE 82nd Ave	Portland, OR	97266	Supplier of batteries and light bulbs with franchise locations in 46 states and Puerto Rico; multiple local locations; headquartered in Hartland, WI	Indirect Materials
Baxter Auto Parts	9444 N Whitaker Rd	Portland, OR	97217	Auto parts supplier with multiple locations in OR, WA, and CA	Indirect Materials



Beckwith & Kuffel Inc.	1614 NE 99th St	Vancouver, WA	98665	Offices in Seattle, WA, Vancouver, WA, and Spokane, WA; sales and service for industrial pumps, compressors, and blowers	Capital Goods
Benchmark Industrial Services	2245 NW Suffolk St	Portland, OR	97210	Industrial contractor providing services from equipment maintenance to complex capital projects with offices in Portland, OR, Seattle, WA, and Spokane, WA	Services
Bernert Barge Lines	421 High Street	Oregon City, OR	97045	Provider of inland waterway transportation services (tug and barge) with local history dating back to the late 1800s	Services
BestBuy	1772 Jantzen Beach Center	Portland, OR	97217	International electronics retailer headquartered in Richfield, MN	Indirect Materials
Blast Cleaning Services	21720 SW Oregon St	Sherwood, OR	97140	Single location contractor/manufacturer supplying and constructing blast cleaning systems (blastrooms, shotblast machines, automated airblast machines, shot peening machines, etc.)	Capital Goods
BNSF Railway	3930 NW Yeon Ave	Portland, OR	97210	Transcontinental railroad transportation and logistics service provider headquartered in Ft. Worth, TX	Services
Brake Systems Inc	2221 NE Hoyt St	Portland, OR	97232	Single location manufacturer, remanufacturer, distributor and engineer of brakes, valves, compressors, and related products and equipment	Indirect Materials
Branom Instrument Co	8435 N Interstate Pl	Portland, OR	97217	Seattle, WA headquartered supplier/servicer of products and services for industrial and municipal testing, control, monitoring, and calibration instruments and equipment; locations in multiple states	Indirect Materials
Buckaroo Thermosteel Inc	5410 NE 109th Ave	Portland, OR	97220	Single location roofing contractor	Services
Cal-Cert Co	6709 SE Lake Rd	Portland, OR	97222	Portland, OR based provider of calibration certification equipment and services	Services
CalPortland	1050 N River St	Portland, OR	97210	Glendora, CA headquartered supplier of cement, concrete, aggregates, asphalt, building products, and construction services with multiple local locations	Direct Materials
Carlson Testing Inc	8430 SW Hunziker Rd	Portland, OR	97223	Tigard, OR headquartered construction inspection, materials testing, and geotechnical engineering services company with branch office locations in Oregon	Services
Carson Oil Co	3125 NW 35th Ave	Portland, OR	97210	Portland, OR headquartered supplier of petroleum products and services with branch offices throughout Oregon	Indirect Materials



Cascade Architectural & Engineering	8916 NE Alderwood Rd	Portland, OR	97220	Seattle, WA based company providing equipment, supplies, reprographics and related support for the architectural and engineering sectors	Services
Cascade Columbia Distribution	14200 SW Tualatin Sherwood Rd	Sherwood, OR	97140	With offices in Sherwood, OR, Seattle, WA, and Spokane, WA, company provides chemicals and related supplies and equipment with expertise in aerospace, compounding, electronics, food manufacturing, metal plating, and water treatment industries	Indirect Materials
Cascade Controls	19785 NE San Rafael St	Portland, OR	97230	Portland, OR based contract manufacturer of engineered production systems and controls for semiconductor, agriculture, food processing, marine, crane and hoist, municipal, petrochemical, forest products, power generation, solar, wind, recycling, and soil/water reclamation industries	Services
Cascade Pipe & Supply	2519 N Hayden Island Dr	Portland, OR	97217	Bakersfield, CA based supplier, distributor, and manufacturer of industrial pipe, fittings, and supplies	Direct Materials
Centurylink	2201 NE Lloyd Blvd	Portland, OR	97232	Monroe, LA headquartered telecommunications service provider	Services
Cessco Inc	4222 NE Columbia Blvd	Portland, OR	97218	Single location company providing sales and rental of construction equipment and supplies	Capital Goods
Chapel Steel Co	4200 NW Yeon Ave	Portland, OR	97210	Steel service center based in Philadelphia, PA with locations in US and Canada	Direct Materials
Chas H Day Co Inc	602 SE 11th Ave	Portland, OR	97214	Single location business providing sales and service of electric and pneumatic tools and supplies	Indirect Materials
Christenson Electric Inc	111 SW Columbia St	Portland, OR	97201	Portland, OR based electrical contractor	Services
Christenson Oil	3865 NW St Helens Rd	Portland, OR	97210	Single location supplier of petroleum products and services	Indirect Materials
City Club of Portland	901 SW Washington St	Portland, OR	97205	Nonprofit education and research based civic organization	Services
Coast Crane & Equipment Co	1601 NE Columbia Blvd	Portland, OR	97218	Sales, rental, and service of industrial cranes and equipment with locations throughout the Western US, including Alaska and Hawaii	Capital Goods
Conrey Electric	1903 SE 7th Ave	Portland, OR	97214	Single location sales and service provider of electric motors	Capital Goods
Consolidated Electrical Distributors	2555 NW Nicolai St	Portland, OR	97210	Single location supplier of electrical components and supplies	Indirect Materials
Continental Western Corp	12021 NE Erin Way	Portland, OR	97220	San Leandro, CA based distributor of of industrial supplies	Indirect Materials



Contractor Plan Center	5468 SE International Way	Milwaukie, OR	97222	Milwaukie, OR based membership organization connecting contractors, owners, architects, manufacturers, and suppliers to facilitate project bidding	Services
Control Factors Inc	3271 NE Cleveland Ave	Portland, OR	97030	Manufacturers representative and distributor located in Gresham, OR of process flow and filtration/separation components	Indirect Materials
Cook Engine Co	530 NE Tomahawk Island Dr	Portland, OR	97217	Marine engine repair and service provider	Indirect Materials
Copiers NW Inc	11000 SW 11th St	Portland, OR	97005	Provider of copy and printing equipment, software solutions, and services based in Seattle, WA	Capital Goods
Cummins Northwest Inc	4711 N Basin Ave	Portland, OR	97217	Distributor and supplier of Cummins engine products and services; Portland, OR based with locations throughout the Pacific NW and Alaska	Indirect Materials
Curran Coil Spring Inc	9265 SW 5th St	Wilsonville, OR	97070	Manufacturer of custom industrial torsion springs, extension springs, and compression springs	Direct Materials
Daily Journal of Commerce	921 S.W. Washington St.	Portland, OR	97205	Supplier of media services	Services
DEX Media West LLC	10200 SW Greenburg Rd	Portland, OR	97223	Supplier of media services	Services
DHL	15509 NE Airport Way	Portland, OR	97230	Worldwide transportation and logistics services provider	Services
Direct Transport Inc	27600 SW 95th Ave	Wilsonville, OR	97070	Provider of regional courier and freight services	Services
Documart	3310 NW Yeon Ave	Portland, OR	97210	Supplier of print services	Services
Don Thomas Petroleum Inc	2727 NW St Helens Rd	Portland, OR	97210	Petroleum, fuel, oil, and lubricant distributor in the Portland Metro area since	Indirect Materials
Earle M Jorgensen Co	16440 N.E. Mason Street	Portland, OR	97230	Supplier/service center of steel and aluminum bar, tubing, and plate; headquartered in Lynwood, CA	Direct Materials
EC Powersystems	1805 NW 21st Ave	Portland, OR	97209	Portland, OR based sales, rentals, and service of generators and engines	Capital Goods
EJ Bartells Co	19039 NE Portal Way	Portland, OR	97230	Distributor, fabricator, manufacturer and refractory services contractor in the Western U.S., and insulation services contractor in the Pacific NW; based in Renton, WA	Services
Elephant's Delicatessen	115 NW 22nd Ave	Portland, OR	97210	Catering and food services	Services
Elmer's Flag & Banner	1332 NE Broadway St	Portland, OR	97232	Manufacturer and distributor of flags, banners, and related supplies and materials	Services



Emerald Services Inc.	1300 W 12th St	Vancouver, WA	98660	Seattle, WA based supplier of processing and recycling services of wastewater and oil products	Services
Empire Rubber & Supply	80 SE Taylor St	Portland, OR	97214	Supplier and installer of conveyor belt and related industrial goods with locations in Portland, OR and Pasco, WA	Indirect Materials
EOFF Electric Co	1624 SE Grand Ave	Portland, OR	97214	Provider of electrical supplies, components, and equipment based in Portland, OR with locations throughout OR and SW WA	Indirect Materials
ERM West Inc	1001 SW 5th Ave	Portland, OR	972043	Global provider of environmental, health, safety, risk, and social consulting services	Services
Evrz Inc	14400 N Rivergate Blvd	Portland, OR	97203	Chicago, IL based international producer of steel products with pipe, tube, and plate rolling mills in Portland, OR	Direct Materials
F&F Grinding Inc	9442 N Ramsey Blvd	Portland, OR	97203	Single location provider of grinding, sawing, burning, and cutting services	Services
Farwest Steel Corp	3703 NW Gateway Ave	Vancouver, WA	98660	Eugene, OR based steel service and fabrication/manufacturing center	Direct Materials
Fastenal Co	308 SE Taylor St	Portland, OR	97214	Winona, MN based supplier of industrial products and services	Indirect Materials
Fastsigns	10309 SE 82nd Ave	Portland, OR	97086	Provider of signs, banners, and vehicle graphics based in Carrollton, TX	Indirect Materials
Faulkner Automotive Electric	1831 NW 28TH Ave	Portland, OR	97210	Single location car parts and accessories manufacturing services provider	Services
FE Bennett	739 NE Broadway St	Portland, OR	97232	Portland, OR based vendor of material handling equipment and supplies	Indirect Materials
FedEx	4344 N Port Center Way	Portland, OR	97217	Global transportation and logistics provider based in Memphis, TN	Services
Ferguson Enterprises Inc	2121 N Columbia Blvd	Portland, OR	97217	Plumbing and building products supplier based in Newport News, VA; subsidiary of UK-based Wolseley	Indirect Materials
Ferrellgas	641 NE Lombard St	Portland, OR	97211	Provider of propane distribution and services headquartered in Overland Park, KS	Indirect Materials
Finishing Technologies	5924 NE 112th Ave	Portland, OR	97220	Portland, OR based technical finishing equipment distributor and servicer	Capital Goods
First Response Systems	4970 SW Griffith Dr	Beaverton, OR	97005	Alarm, security, and surveillance services provider based in Beaverton, OR	Services
Fisherman's Marine Supply	901 N Columbia Blvd	Portland, OR	97217	Marine equipment and supplies provider based in the Portland, OR area with three local facilities	Indirect Materials
Fluid Connector Products Inc	2929 NW 31st Ave	Portland, OR	97210	Portland, OR based provider of hydraulic systems equipment and supplies	Indirect Materials
Forklift Services of Oregon	7001 NE Columbia Blvd	Portland, OR	97218	New and used forklift sales, rental, and service	Capital Goods



Fred Meyer	3800 SE 22nd Ave	Portland, OR	97202	Retail department store chain; subsidiary of Cincinnati, OH based Kroger Co.	Indirect Materials
Galvanizers Company	2406 NW 30th Ave	Portland, OR	97210	Portland, OR based galvanizing manufacturer	Services
Gasket Technology Inc.	23605 NE Halsey St	Troutdale, OR	97060	Troutdale, OR based manufacturer of industrial gaskets	Indirect Materials
General Tool & Supply Co	2705 NW Nicolai St	Portland, OR	97210	Supplier of industrial bearings, hydraulics, material handling, and other related supplies and services	Indirect Materials
Grabber Construction Products	13011 SE Jennifer Street	Clackamas, OR	97015	International distributor and manufacturer of fasteners, tools, equipment, and building materials for construction industry; based in Alpine, UT	Indirect Materials
Grainger	6335 N Basin Ave	Portland, OR	97217	Global supplier of maintenance, repair and operating products based in Lake Forest, IL	Indirect Materials
Graybar Electric Co Inc	901 NE 60th Ave	Portland, OR	97213	St. Louis, MO based supply chain management services provider and distributor of high-quality components, equipment and materials for the electrical and telecommunications industries	Indirect Materials
Green Transfer & Storage	10099 N Portland Rd	Portland, OR	97203	Warehousing, transloading, storage, trucking and logistics provider	Services
Gresham Transfer Inc	24001 NE Sandy Blvd	Wood Village, OR	97060	Specialized/heavy haul and dry bulk truck transportation and logistics provider	Services
Gunderson LLC	4350 NW Front Ave	Portland, OR	97210	Lake Oswego, OR based international manufacturer of railcars, marine barges, and related components and services	Direct Materials
Hall Tool Co	1724 SE Grand Ave	Portland, OR	97214	Single location provider of hand tools and industrial supplies	Indirect Materials
Harbor Freight Tools	1335 N Mason St	Portland, OR	97217	Supplier of hand tools, generators, power tools, air tools, and related hardware and equipment with over 400 retail locations; based in Southern CA	Indirect Materials
Hardchrome Inc	1152 NW Commerce Ct	Estacada, OR	97023	Single location plating and polishing business	Services
Harmer Steel Products Co	9933 NW 107th Ave	Portland, OR	97231	Portland, OR based supplier of rail and track accessories with locations in the US and Canada	Direct Materials
Harsco Infrastructure Americas	3909 Nw Fruit Valley Road	Vancouver, WA	98660	Provider of construction and industrial maintenance services with operations in 32 countries; headquartered in Camp Hill, PA and Fair Lawn, NJ	Services
Hertz Equipment Rental Corp	4939 NE Columbia Blvd	Portland, OR	97218	Rental and sales of generators, construction equipment, and material handling equipment	Services





Hilti Inc	316 SE Taylor St	Portland, OR	97214	Liechtenstein based supplier of tools and fastening systems; operates in over 120 countries; N. American headquarters in Tulsa, OK	Capital Goods
Home Depot	1728 N Jantzen Ave	Portland, OR	97217	Atlanta, GA based home improvement retailer	Indirect Materials
Honey Bucket	2301 SE Hidden Way	Vancouver, WA	98661	Puyallup, WA based supplier of mobile sanitation services	Services
Hydra Power Systems Inc	5445 NE 122nd Ave	Portland, OR	97230	Portland, OR headquartered supplier of fluid hydraulic parts and components	Capital Goods
Hydraulics Inc	713 W 11th St	Vancouver, WA	98660	Single location provider of hydraulic supplies and hose manufacturing services, as well as cylinder, pump, and motor repair	Indirect Materials
IGI Resources Inc	415 W 6th St	Vancouver, WA	98660	Petroleum bulk stations and terminals provider	Indirect Materials
IKON Office Solutions	851 SW 6th Ave	Portland, OR	97204	Global provider of Ricoh copy and printing equipment, software solutions, and services	Services
IMR KHA Portland LLC	5687 SE International Way	Portland, OR	97222	Mechanical, chemical, metallurgical, and corrosion testing and analysis services provider	Services
Industrial Tire	7331 NE Killingsworth St	Portland, OR	97218	Industrial tire, wheel, and auto repair services based in Portland, OR with six Pacific Northwest facilities	Indirect Materials
Integra Telecom	825 NE Multnomah St	Portland, OR	97232	Portland, OR based telecommunications services provider	Services
Integrated Power Services	2315 NW 21st Pl	Portland, OR	97210	Provider of repair and maintenance services for electric motors, generators, and mechanical power transmission components based in Greenville, SC with locations throughout the US	Services
International Inspection Inc	10521 N Lombard St	Portland, OR	97203	Provider of nondestructive testing and examination services	Services
IRC Aluminum & Stainless Inc	9038 N Sever Ct	Portland, OR	97203	Single location nonferrous metal service center	Indirect Materials
Iron Horse Group	5501 NE 223rd Ave	Fairview, OR	97024	Single location utility and industrial services provider	Services
JJ Calibrations Inc	7007 SE Lake Rd	Portland, OR	97267	Instrument calibration services provider based in Portland, OR	Services
John C. Murdoch Inc	5555 N Channel Ave	Portland, OR	97217	Marine surveyor located in Portland, OR	Services
Johnstone Supply	11632 NE Ainsworth Circle	Portland, OR	97220	Wholesale distributor to the HVAC/R and property maintenance industries	Indirect Materials
Jubitz Corp	33 NE Middlefield Road	Portland, OR	97211	Transportation services company offering commercial fueling and travel services to fleets, professional drivers, and the local and traveling public based in Portland, OR	Services



Kaman Industrial Technologies	1703 NE Argyle St	Portland, OR	97211	Provider of a wide range of products and systems related to bearings, mechanical and electrical power transmission, automation & control, material handling, and fluid power for the MRO and OEM markets based in Bloomfield, CT	Indirect Materials
Kleen Blast Co	3747 North Suttle Road	Portland, OR	97217	Provides abrasives, sandblasting equipment and supplies	Indirect Materials
Koldkist Bottled Water	909 N Columbia Blvd	Portland, OR	97217	Producer, marketer and distributor of high-quality packaged ice	Services
KY-RO Inc	18209 SW Boones Ferry Rd	Tigard, OR	97224	Single location provider of profile and plate rolling services	Direct Materials
LaGrand Industrial Supply Co	2620 SW 1st Ave	Portland, OR	97201	Single location distributor of foundry supplies, equipment and industrial products	Indirect Materials
Lampros Steel Inc	9040 N Burgard Way	Portland, OR	97203	Specialty structural steel service center and warehousing based in Portland, OR	Direct Materials
Landa Northwest	11811 NE Marx St	Portland, OR	97220	Single location business selling and servicing industrial pressure washers, parts washers, water treatment systems, and heaters	Capital Goods
Landmark Equipment	625 NE Killingsworth St	Portland, OR	97218	Single location business providing equipment sales, rentals, parts, and repair and maintenance services	Capital Goods
Legacy Laboratory Services	1225 NE 2nd Ave	Portland, OR	97232	Laboratory services provider serving physicians, hospitals, employers, IPAs, and patients; based in Portland, OR	Services
Les Schwab	2140 NE Columbia Blvd	Portland, OR	97211	Provider of tires and automotive repair services based in Prineville, OR	Indirect Materials
Locates Down Under Inc	16119 S Clackamas River Dr	Oregon City, OR		Providing underground wire and cable laying contracting services based in Oregon City, OR	Services
Mac's Radiator & Repair	6147 SE Foster Rd	Portland, OR	97206	Cooling system repairs, products, and services provider based in Portland, OR with nine Pacific NW facilities	Services
Magnetic Specialties Inc	9812 SE Empire Ct	Clackamas, OR	97015	Provider of wholesale magnets and magnetic devices based in Clackamas, OR	Indirect Materials
Marco	7105 SW Varns Street	Portland, OR	97223	Portland, OR based supplier of promotional products, awards, company apparel, and incentive items	Indirect Materials
Marine Lumber Co Inc	11800 SW Myslony St	Tualatin, OR	97062	Single location wholesale lumber sales and distribution	Indirect Materials
Mariner's Supply Co Inc	4865 N Lagoon Ave	Portland, OR	97217	Supplier of marine parts and products based in Bainbridge Island, WA	Indirect Materials
Marks Metal Technology	10300 SE Jennifer St	Clackamas, OR	97015	Single location metal and steel processor, specializing in rolling plate and structural profiles, concrete pipe forms and custom fabrication	Direct Materials



Mascott Equipment Co Inc	435 NE Hancock St	Portland, OR	97212	Sales, service, and installation of petroleum equipment	Services
Mason's Supply Co	2637 SE 12th Ave	Portland, OR	97202	Construction supplies business with locations in OR and WA; based in Portland, OR	Indirect Materials
Matheson Tri-Gas Inc	13129 NE David Cir	Portland, OR	97230	Global supplier of industrial and scientific gases and gas handling equipment; subsidiary of Tokyo, Japan based TNS Corp	Indirect Materials
McGuire Bearing Co Inc	947 SE Market St	Portland, OR	97214	Regional distributor of bearings and power transmission products headquartered in Portland, OR	Indirect Materials
McKinney Trailers & Containers	12008 NE Inverness Dr	Portland, OR	97220	Tractor trailer and shipping container rental, leasing, sales and service	Capital Goods
Mesh Supply Co	312 SE Stark St	Portland, OR	97214	Wholesale plumbing supply company based in Portland, OR	Indirect Materials
Metro Overhead Door Inc	2525 NE Columbia Blvd	Portland, OR	97211	Repair, service and installation of garage doors and gate automation based in Portland, OR	Services
Milwaukie Crane & Equipment Co	10250 SW North Dakota St	Tigard, OR	97223	Designs, manufactures, installs and services complete overhead material handling systems and stocks hoists, trolleys, accessories, replacement parts and provides service based in Portland, OR	Services
Mobile Mini Inc	5940 NE Cully Blvd	Portland, OR	97218	Global company providing rental and sales of portable self storage containers, shipping containers, and mobile offices based in Tempe, AZ	Capital Goods
Modspace Corp	13132 N. Woodrush Way	Portland, OR	97203	Providing modular building and construction trailer rental, leasing, and sales based in Berwyn, PA	Services
Monster Fuses	5440 SE 26th Ave	Portland, OR	97202	Two location company with offices in Portland, OR and Fairfield, NJ; Supplier of new, surplus, and out of production fuses and switchgear components	Indirect Materials
Morgan Industrial Inc	23810 NW Huffman St	North Plains, OR	97124	Providing specialized heavy rigging, transportation, machinery moving, millwright, architectural, and process equipment movement services based in the Hillsboro, OR area	Services
Motion Industries Inc	940 Northeast 57th Avenue	Portland, OR	97213	Distributor of industrial MRO supplies based in Birmingham, AL; subsidiary of Genuine Parts Company of Atlanta, GA	Indirect Materials
MSC Industrial Supply Co Inc	12207 NE Marx St	Portland, OR	97230	Distributor of MRO supplies, industrial equipment and tools based in Melville, NY	Indirect Materials
Mt Hood Solutions Co	14546 N Lombard Street	Portland, OR	97203	Subsidiary of Charlott, NC based Swisher; supplier of industrial hygiene products and services	Indirect Materials



Napa Auto Parts	10515 N Lombard St	Portland, OR	97203	Distributor and retailer of auto parts, tools, and supplies; subsidiary of Atlanta, GA based Genuine Parts Company	Indirect Materials
NDE Professionals Inc	13339 NE Airport Way	Portland, OR		Provider of quality control consulting, and nondestructive testing and training services including radiography, ultrasonic, penetrant and magnetic particle based in Portland, OR	Services
Ness & Campbell Crane Inc	5730 NE 138th Ave	Portland, OR	97230	Main division offices in Portland, OR and Seattle, WA with branch offices throughout Western OR and WA; provider of fixed and mobile crane and lift services	Services
Norlift of Oregon Inc	7373 SE Milwaukie Expressway	Portland, OR	97222	Supplier of new, used, rental and material handling products and services based in Portland, OR	Services
North Coast Electric Co	625 N Thompson St	Portland, OR	97227	Provider of electrical supplies, components, distribution and related services with locations throughout the Pacific NW and Alaska	Indirect Materials
Northside Ford	6221 NE Columbia Blvd	Portland, OR	97218	New and used Ford truck dealership	Capital Goods
Northwest Pump & Equipment Co.	2800 NW 31st Ave	Portland, OR	97210	Distributor of petroleum equipment, industrial pumps, and car wash systems and related services with locations throughout the Western US	Indirect Materials
Northwest Scaffold Service Inc	11211 SE Foster Rd	Portland, OR	97266	Provides services in the estimation, design, supply, erection & dismantling of suspended scaffold (swingstaging), frame scaffold, temporary weather enclosures, and shoring based in Portland, OR	Services
NRC Environmental Services Inc	6211 N Ensign St	Portland, OR	97217	Provision of environmental, industrial and emergency solutions; global company based in Great River, NY	Services
NW Natural Gas Co	220 NW 2nd Ave.	Portland, OR	97209	Natural gas utilities service provider/supplier based in Portland, OR	Services
Oak Harbor Freight Lines Inc	9026 NE 13th Ave	Portland, OR	97211	Truck transportation and logistics services provider based in Auburn, WA with terminal locations throughout the Western US	Services
Office Depot	323 SE Martin Luther King Jr Blvd	Portland, OR	97214	National retail chain/supplier of office products, business machines, computers, computer software and office furniture, and business services including copying, printing, document reproduction, shipping, and computer setup and repair; based in Boca Raton, FL	Indirect Materials



Oil Filter Service Co	615 SE Market	Portland, OR	97214	Single location provider of filters and hose assemblies, and manufacturer of custom fittings and adapters	Indirect Materials
Olympic Tug & Barge Inc	7900 NW St Helens Rd	Portland, OR	97210	Division of Seattle, WA base Harley Marine Services and provider of marine tug, barge, and port assist transportation and logistics services	Services
Oregon Bolt Inc	14965 SW 72nd Ave	Tigard, OR	97224	Provider of industrial threaded fasteners and related items based in Tigard, OR	Indirect Materials
Oregon Breakers Inc	3365 SE 17th Ave Portland	Portland, OR	97202	Single location supplier of electrical components and supplies	Capital Goods
Oregon Carbide Saw	1713 SE 7th Ave	Portland, OR	97214	Provides precision sharpening and manufacturing service for saws, cutters, routers, and coldsaws; based in Portland, OR	Services
Oregon Ironworks Inc	9700 SE Lawnfield Rd	Clackamas, OR	97015	Engineering, fabrication, and manufacturing business based in Clackamas, OR	Direct Materials
Oregon Sandblasting & Coating Inc	10000 SW Herman Rd	Tualatin, OR	97062	Provider of industrial painting, coating, sandblasting, and finishing services based in Tualatin, OR	Services
Oregon Tractor	6455 NE Columbia Blvd	Portland, OR	97218	Portland, OR based supplier of new and used heavy equipment sales, rentals, and repair and maintenance services with branch location in Roseburg, OR	Capital Goods
OTS Wire & Insulation Inc	9155 SW Barber St	Wilsonville, OR	97070	Supplier of electrical supplies & equipment for the motor repair and transformer industry based in Wilsonville, OR	Capital Goods
Ott's Friction Supply Inc	201 N Columbia Blvd	Portland, OR	97217	Portland, OR based distributor and supplier of automotive and mechanical friction products such as brakes and clutches; branch location in Eugene, OR	Indirect Materials
Oxford Inn & Suites	12226 N Jantzen Dr	Portland, OR	97217	Local hotel and hospitality provider	Services
Pacific Fence	13770 SE Ambler Rd	Clackamas, OR	97015	Supplier of fencing installation and manufacturing services specializing in railings, gates, chain link, and vinyl; single location in Clackamas, OR	Services
Pacific Machinery & Tool Steel	3445 NW Luzon St	Portland, OR	97210	Portland, OR based specialty metal service center	Indirect Materials
Pacific Power Products	600 S 56th Pl	Ridgefield, WA	98642	Ridgefield, WA based provider of sales and service of diesel engines, transmissions and parts for trucks, buses, coaches, heavy duty construction equipment, marine, rail and power generation; locations throughout OR, WA, AK, and HI	Services
Palm Abrasive & Tool Inc	905 SE 14th Ave	Portland, OR	97214	Wholesaler of abrasives, tools, and related supplies in Portland, OR	Indirect Materials



Pape Material Handling Inc	7000 SW Sandburg St	Portland, OR	97223	Provider of sales, rental, and product support of lift trucks and material handling equipment based in Eugene, OR	Capital Goods
Paramount Supply Co	816 SE Ash St	Portland, OR	97214	Supplier of pipe, valves, fittings, pumps, filters, gaskets, steam products, and other industrial specialties with branches throughout the Western US and Alaska	Indirect Materials
Parr Lumber Co	6250 NE Martin Luther King Jr Blvd	Portland, OR	97211	Supplier/distributor of building products, hardware, and tools based in Hillsboro, OR with 31 locations in OR, WA, and AZ	Indirect Materials
Peninsula Truck Lines Inc	3182 NW 26th Ave	Portland, OR	97210	Regional less-than-truckload truck transportation and logistics provider based in Auburn, WA with locations throughout the Pacific NW and Vancouver, BC	Services
Performance Contracting Inc	5555 N Channel Avenue,	Portland, OR	97217	Specialty contractor providing services to industrial, commercial, and non-residential markets based in Lenexa, KS; services include interiors, insulation, scaffold services, and abatement	Services
Peterson Industrial Products Inc	2300 NW 29th Ave	Portland, OR	97210	Supplier of industrial hoses, fittings, cylinders, pumps, valves, meters, and other products for use in hydraulics, pneumatics, instrumentation, and sanitary applications based in Portland, OR	Indirect Materials
Peterson Machinery Co	4421 NE Columbia Boulevard	Portland, OR	97218	Supplier of new and used heavy equipment sales, rentals, and repair and maintenance services headquartered in the San Francisco, CA Bay Area	Capital Goods
Petrocard Systems Inc	9885 SE Mather Rd	Clackamas, OR	97015	Supplier of fleet fueling, mobile fueling, cardlock fueling, and lubricant supply services based in Kent, WA	Indirect Materials
Pinnell Busch Inc	6420 SW Macadam Ave	Portland, OR	97239	Project management consultancy for the design and construction industry based in Portland, OR	Services
Pioneer Wiping Cloth	10707 N Lombard St	Portland, OR	97203	Supplier of industrial wiping cloth, absorbent products, and recycling services based in Portland, OR	Indirect Materials
Platt Electric Supply Inc	3053 NW 29th Ave	Portland, OR	97210	Distributor and wholesaler of electrical, industrial, lighting, tools, fuses, control and automation products with locations throughout the Western US	Indirect Materials
Pope Rigging Loft Inc	2355 NW 21st Pl	Portland, OR	97210	Supplier of marine rigging products and services based in Portland, OR	Indirect Materials
Port Plastics	7500 SW Tech Center Dr	Portland, OR	97223	Supplier of plastic materials, components, and related products based in Chino Hills, CA	Indirect Materials



Port Supply	1176 N Hayden Meadows Dr	Portland, OR	97217	Watsonville, CA based wholesale distributor of marine related products	Indirect Materials
Portland Business Alliance	200 SW Market St	Portland, OR	97201	Local commerce association	Services
Portland Community College	12000 SW 49th Ave	Portland, OR	97219	Local higher educational institution	Services
Portland Compressor	310 SE 12th Ave	Portland, OR	97214	Single location distributor, dealer, and service center of compressors, sprayers, pressure washers, and related products and services	Capital Goods
Portland Fasteners Inc	3103 NW St. Helens Road	Portland, OR	97210	Single location supplier of industrial fasteners and construction supplies	Indirect Materials
Portland General Electric Corp	3700 SE 17th Ave	Portland, OR	97202	Investor-owned utility engaged in the generation, transmission and distribution of electricity to industrial, commercial and residential customers	Services
Portland Valve & Fitting Co	815 SE Sherman St	Portland, OR	97214	Supplier/distributor of hoses, flexible tubing, fittings, filters, regulators, measurement devices and related products and support services; trade name of Portland, OR based Swagelok Northwest US, part of global Solon, OH based Swagelok Company	Indirect Materials
Potter Webster Co	41 NE Walker St	Portland, OR	97211	Supplier of new and remanufactured truck and trailer parts headquartered in Portland, OR with branch locations throughout the region	Indirect Materials
Power Serv Inc	10931 N. Vancouver Way	Portland, OR	97217	Kansas City, MO based distributor, reconditioner, and remanufacturer of railcar moving equipment	Services
PPI Group	6015 NE 80th Ave	Portland, OR	97218	Portland, OR based supplier of software and hardware solutions to the architecture, engineering, and construction industries	Services
Praxair Distribution	603 SE Victory Ave	Vancouver, WA	98661	Supplier of industrial gases and related services based in Danbury, CT	Indirect Materials
Precise Manufacturing & Engineering	12403 Ne 60th Way	Vancouver, WA	98682	Provider of engineering services to operators of blast furnaces and steel mills based in Vancouver, WA	Services
Precision Equipment Inc	8440 N Kerby Ave	Portland, OR	97217	Industrial parts repair and custom manufacturing based in Portland, OR	Services
Precision Hydraulics LLC	2715 NW St Helens Rd	Portland, OR	97210	Portland, OR based tooling hydraulic outfitter	Services
Premier Gear & Machine Works	1700 NW Thurman St	Portland, OR	97209	Portland, OR based manufacturer of machinery, gears, and controls and machine and gear shop services	Services
Premier Rubber & Supply	9841 N Vancouver Way	Portland, OR	97217	Portland, OR based rubber products wholesaler	Indirect Materials



Proctor Sales Inc	27180 SW 95th Ave	Wilsonville, OR	97070	Sells & services engineered mechanical solutions including boilers, pumps, controls, valves, burners, stack, tanks, hydronic and steam solutions; offices located in OR, WA, and AK	Services
Production Sawing	18205 Sw Boones Ferry Rd	Tigard, OR	97224	Tigard, OR based metal slitting and shearing business	Services
PSI Inc	6032 N Cutter Cir	Portland, OR	97217	Oakbrook Terrace, IL based company provides engineering, scientific, technical and management solutions to public and private sector clients	Services
Rain for Rent	11035 NE Marx St	Portland, OR	97220	Provider of temporary liquid handling solutions including pumps, tanks, filtration and spill containment based in Bakersfield, CA	Services
Red-D-Arc Inc	7315 NE 43rd Ave	Vancouver, WA	98661	Subsidiary of Radnor Township, PA based Airgas Inc.; provider of welding and welding-related rental products and services throughout North America	Capital Goods
Redmond Heavy Hauling Inc	613 NE Columbia Blvd	Portland, OR	97211	Portland, OR based provider of heavy hauling and specialized truck transportation and logistics services	Services
Reed Electric Co	2539 NW Vaughn St	Portland, OR	97210	Single location provider of motor repair and field services, and new motor sales	Services
Rem Steel Sales Inc	9109 N Wilbur Ave	Portland, OR	97217	Portland, OR based distributor of prime, excess prime, and secondary flat rolled steel products	Direct Materials
Rexel Inc	20171 SW 95th Ave	Tualatin, OR	97062	Subsidiary of Rexel Group based in Paris, France; Distributor of electrical supplies	Indirect Materials
Rigging Products Inc	2242 NE Columbia Blvd	Portland, OR	97211	Single location provider of rope, rigging, logging, industrial chain, and related products and services	Direct Materials
Rodda Paint Co	6107 N Marine Dr	Portland, OR		Portland, OR based provider of paint color matching services, spray equipment sales and rentals, and paint sales	Indirect Materials
Rogers Machinery	14600 SW 72nd Ave	Portland, OR	97224	Portland, OR based industrial equipment supplier, providing technical services, engineering, consultation, and products such as compressed air systems, process and house vacuum systems, and blower and pump systems; branch locations throughout the Western US	Capital Goods
Rogers Marine	3445 NE Marine Dr	Portland, OR	97211	Single location provider of sales, service, and installation of boat equipment, marine electronics, radar, GPS, depth sounders, and related marine products	Capital Goods





Rose City Awning Co	1638 NW Overton St	Portland, OR	97209	Portland, OR based sales and service of awnings, tarps, canopies, flags, flagpoles, accessories and custom applications	Services
RSC Equipment Rental	3133 NW Saint Helens	Portland, OR	97210	Part of Stamford, CT based United Rentals Inc.; global equipment rentals company	Services
Ryerson	6330 N Basin Avenue	Portland, OR	97217	Distributor and processor of metals based in Chicago, IL	Direct Materials
Safety Kleen Systems Inc	16540 SE 130th Ave	Clackamas, OR	97015	Re-refiner of used oil and provider of parts cleaning services based in Dallas, TX	Indirect Materials
Safway Services LLC	1960 NW Marine Dr	Troutdale, OR	97060	Full-service scaffold company offering rental, engineering, training and safety; based in Waukesha, WI	Services
Sam A Mesher Tool Co	1704 NW Johnson St	Portland, OR	97209	Single location supplier of machinery and cutting tools	Indirect Materials
Sanderson Safety Co	1101 SE Third Ave	Portland, OR	97214	Supplier of safety systems and products for a variety of industries and applications based in Portland, OR with locations throughout the Western US	Indirect Materials
Schroeder's Machine Works Inc	8010 NE 19th Ct	Vancouver, WA	98665	Single location machining, fabrication, and manufacturing facility	Services
Seal Source Inc	16027 NE Cameron Blvd	Portland, OR	97230	Single location supplier of seals and gaskets	Indirect Materials
Seals Unlimited Inc	23050 NW Jacobson Rd	Hillsboro, OR	97124	Distributor of rubber molded, rubber extrusion, and gaskets; In-house steel rule die shop with water jet cutting services available; based in Hillsboro, OR	Indirect Materials
Service Steel Inc	5555 N Channel Ave	Portland, OR	97217	Steel service and fabrication center based in Portland, OR	Direct Materials
Shaver Transportation	4900 NW Front Ave	Portland, OR	97210	Provider of inland waterway transportation and logistics services (tug and barge services) and port assist services	Services
Sherwin Williams Co	30 NE Broadway St	Portland, OR	97232	Global supplier of paints and finishes based in Cleveland, OH	Indirect Materials
Siemens Building Technologies	15201 NW GREENBRIER PKWY	Beaverton, OR	97006	Supplier of products and services for building/facility automation, energy efficiency, fire safety, power distribution, and security; part of Munich, Germany based Siemens	Capital Goods
Speedometer Service and Instrument Corp	3551 NW Front Ave	Portland, OR	97210	Single location company selling gauges, cables, and adapters to the truck and automotive industries	Services
Spencer Fluid Power	2230 NE Columbia Blvd	Portland, OR	97211	Distributor of hydraulic components and systems; subsidiary of Cleveland, OH based Applied Industrial Technologies	Indirect Materials
Stack Metallurgical Services	5938 N Basin Ave	Portland, OR	97217	Single location provider of heat treating and metallurgical manufacturing services	Services



Staples	1760 Jantzen Beach Center	Portland, OR	97217	National retail chain/supplier of office products, business machines, computers, computer software and office furniture, and business services including copying, printing, document reproduction, shipping, and computer setup and repair; headquartered in Framingham, MA	Indirect Materials
Star Rentals Inc	1735 SE Martin Luther King Jr Blvd	Portland, OR	97214	Construction equipment rental supplier with locations in OR and WA	Services
State Pipe & Supply	3508 NE 68th St	Vancouver, WA	98661	Supplier of pipe, tubing, fittings, and related products to mechanical, plumbing and general contractors, pipe fabricators, petroleum, fire protection and fencing industries, water well and irrigation companies, pipe distributors, and other pipe users; Rialto, CA based subsidiary of Korean company SeAH Steel Corp	Indirect Materials
Stellar Industrial Supply Inc	12831 NE Whitaker Way	Portland, OR	97230	Tacoma, WA based provider of industrial supplies and tools	Indirect Materials
Stud Welding Supply	2119 SE Columbia Way	Vancouver, WA	98661	Single location wholesale welding equipment and supplies provider	Indirect Materials
Suburban Grinding Inc	13025 SW Herman Rd	Tualatin, OR	97062	Single location provider of industrial grinding services and engineering	Services
Sunbelt Rentals Inc	7626 NE Killingsworth St	Portland, OR	97218	Construction equipment and tool rental company; subsidiary of London, UK based Ashtead Group	Services
Swan Island Sandblasting	5555 N Channel Ave	Portland, OR	97217	Portland, OR based sandblasting and painting facility with two Portland facilities	Services
Tacoma Screw Products Inc	2797 NE Columbia Blvd	Portland, OR	97211	Supplier of fasteners, tools, hardware, and related construction supplies and equipment based in Tacoma, WA	Indirect Materials
Tarr Inc	2429 N Borthwick Ave	Portland, OR	97227	West coast distributor of commodity and specialty chemicals, lubricants and fuels headquartered in Portland, OR	Indirect Materials
Technical Controls	12119 NE 99th	Vancouver, WA	98682	Vancouver, WA based provider of products and services in instrumentation, fluid-handling products, mobile and general hydraulics, pneumatics, process filtration, compressed air and gas filtration markets, and seal applications with locations in WA, ID, and MT	Indirect Materials
Test Equipment Distributors	5476 S.E. International Way	Portland, OR	97222	Stone Mountain, GA based distributor of equipment and supplies for the nondestructive testing industry	Indirect Materials
The Lynch Company Inc	4706 SE 18th Ave	Portland, OR	97202	Single location general steel fabricator	Direct Materials



The Steel Yard Inc	6880 NE Columbia Blvd P	Portland, OR	97218	Single location distributor of steel products (plate, tubing, pipe, bars, etc.)	Direct Materials
The Western Group	4025 NW Express Ave	Portland, OR	97210	Portland, OR headquartered supplier of woven wire, rubber screens, polyurethane screens, and perforated plate with locations in the US and Canada	Direct Materials
Thermo Fluids Inc	12533 SE Carpenter Dr	Clackamas, OR	97015	Recycler of used oil, antifreeze, filters, oily water and oily absorbents based in Scottsdale, AZ	Indirect Materials
Torgerson Forest Products	16055 SW Walker Rd	Beaverton, OR	97006	Single location supplier of forest products and building materials	Direct Materials
Total Filtration Services	1015 SE Grant St	Portland, OR	97214	Subsidiary of Franklin, TN based Clarcor Inc; provider of filtration management and service	Indirect Materials
Transco Industries Inc	5534 NE 122nd Ave	Portland, OR	97230	Portland, OR headquartered engineering and fabrication business involved in steel fabrication, conveyor repair, and water screening with locations throughout the US	Services
Triad Machinery Co Inc	4530 NE 148th Ave	Portland, OR	97230	Sales, leasing, rental, and service of heavy equipment in forestry, construction, and material handling with locations in OR and WA	Services
Tri-Motor & Machinery Co Inc	24460 Pacific Hwy E	Canby, OR	97013	Single location provider of new motor and gear box sales, repair, parts and related services	Services
Tube Service Co	6650 N Ensign St	Portland, OR	97217	Santa Fe Springs, CA based tubular product distribution and laser tube processing services with locations throughout the Western US	Indirect Materials
Union Pacific Railroad	1525 N River St	Portland, OR	97227	Transcontinental railroad transportation and logistics service provider headquartered in Omaha, NE	Services
Unisource Mfg Inc	8040 NE 33rd Dr	Portland, OR	97211	Supplier of industrial hose, hydraulic hose, connectors and accessories headquartered in Portland, OR	Indirect Materials
United Battery Inc	109 NE Columbia Blvd	Portland, OR	97211	Supplier/distributor of batteries, alternators, starters, generators, and accessories based in Portland, OR with three total area locations	Indirect Materials
United Rentals	4621 NW St Helens Rd	Portland, OR	97210	Global equipment rentals company based in Stamford, CT	Services
United Site Services Inc	12215 SE 122nd Ave	Portland, OR	97015	Westborough, MA provider of portable toilet rentals and site sanitation solutions	Services
United Welding Supply Inc	2313 NE Martin Luther King Jr Blvd	Portland, OR	97212	Single location supplier of welding materials, supplies, and equipment	Indirect Materials



United Western Supply Co	15540 N Lombard St	Portland, OR	97203	Distributor of foundry products, equipment, parts, supplies, abrasive products, blasting media, and abrasive equipment, parts, and supplies with offices in Seattle, WA and Portland, OR	Indirect Materials
UPS	6235 N Basin Ave	Portland, OR	97217	Global transportation and logistics provider based in Atlanta, GA	Services
US Distributing	7750 NE 17th Ave	Portland, OR	97211	Distributor of marine parts and accessories to boat dealers, boat repair shops, marine accessory stores, boatyards, boat builders, government agencies and other marine related businesses; locations in Portland, OR, Phoenix, AZ, and Missoula, MT	Indirect Materials
Valin Corp	18977 NE Portal Way	Portland, OR	97230	Provider of process control, measurement, heat, filtration, and automation application solutions based in San Jose, CA	Capital Goods
Vancouver Bolt & Supply Inc	805 W 11th St	Vancouver, WA	98660	Single location provider of bolts, fasteners, and industrial supplies	Indirect Materials
Verizon	616 SW Broadway	Portland, OR	97205	New York City, NY broadband and telecommunications company	Services
Versa Steel Inc	1618 NE 1st Ave	Portland, OR	97232	Supplier of new and used steel beams located in Portland, OR	Indirect Materials
Viking Automatic Sprinkler Co	3245 NW Front Ave	Portland, OR	97210	St. Paul, MN based company provides fire sprinkler systems including automatic fire sprinklers for industrial, commercial, residential, and government markets	Services
Walter E Nelson Co	5937 N Cutter Cir	Portland, OR	97217	Portland, OR based distributor of janitorial supplies and paper with locations throughout OR and WA	Indirect Materials
Washington Crane & Hoist	4707 NE Minnehaha St	Vancouver, WA	98661	Seattle, WA based industrial overhead crane and material handling solutions provider	Services
Waste Management	7227 NE 55th Ave	Portland, OR	97218	National supplier of waste/refuse transportation and disposal services based in Houston, TX	Services
WC Winks Hardware	200 SE Stark St	Portland, OR	97214	Single location hardware retailer	Indirect Materials
West Coast Metals Inc	2555 NW Nicolai St	Portland, OR	97210	Single location supplier of stainless steel, aluminum, and carbon steel	Direct Materials
West Coast Wire Rope & Rigging	2900 NW 29th	Portland, OR	97210	Full service rigging fabrication facilities serving the logging, construction, marine, and equipment manufacturing industries with locations in Portland, Seattle, and Oakland	Direct Materials



West Rail Construction	504 NE 192nd Ave	Vancouver, WA	98684	Vancouver, WA headquartered railroad construction and services provider involved in projects throughout the US and abroad	Services
Western Integrated Tech Inc	8900 N Ramsey Blvd	Portland, OR	97203	Bellevue, WA based manufacturer and integrator of fluid power and electronic systems	Capital Goods
Western Tool & Supply	12518 NE Airport Way	Portland, OR	97230	Livermore, CA based supplier of hand tools, cutting tools, power tools, abrasives, and other industrial products and supplies	Indirect Materials
Working Waterfront Coalition	200 SW Market St	Portland, OR	97201	Local trade/business association	Services
Xylem Dewatering Solutions Inc	2630 N Marine Dr	Portland, OR	97217	White Plains, NY based global provider of water handling, transport, distribution, wastewater and process treatment applications across commercial, industrial and municipal market	Capital Goods
YRC	6845 N Cutter Cir	Portland, OR	97217	Overland Park, KS based global transportation and logistics provider	Services

