

## Washington State Manufacturing Needs Analysis

### Company Profile

The average number of employees across all four Washington State regions is 43.9 employees. However, 52% of all manufacturers have less than 20 employees. As expected, the Puget Sound region has the highest number of average employees (64.1), with 77% of firms in this region having more than 20 employees.

In terms of sales coverage, the majority of all manufacturers (70%) conduct business at least on a local level. While more than half record sales on a local, statewide, regional and national basis, a little more than one-third (36%) record sales on an international basis. The average total gross sales for all participants is \$4.5 million. This is significantly higher in Puget Sound, where average gross revenues are \$5.9 million.

For future expansion plans, 32% of all manufacturers intend to either build additional facilities or renovate current facilities during the next three years. This is similar across all four regions. However, more than half (57%) do not plan on expanding their current facilities at all during the next three years.

### Critical Issues for Company Advancement

There are four issues that surface to the top as being core issues critical to company advancement. These are the issues that prospective clients are likely to respond to during the sales cycle and communication materials. Meeting quality standards received the highest rating, with 92% of all manufacturers indicating this attribute is either critical or important to the company's advancement. Hiring and retaining qualified employees is also a significant issue, with 90% of all manufacturers rating this attribute as critical or important. Cost control and the availability of quality suppliers round out the top four most important issues. Among the lowest rated attributes include availability and cost of financing, selecting and implementing computer software and ability to sell products online. While the relative rank order of the most important elements may shift a position or two across the four regions, there is strong consistency of the attributes that are most important to company success.

### Company Competencies and Modernization Plans

The table below provides a summary of all the various attributes in the key areas, and the extent to which manufacturers already focus on these areas or plan to develop the areas in the future. In the area of Continuous Quality Improvement, quality assurance teams, formal quality programs and just-in-time production receive the most attention, with over half currently

focusing on each of these areas. Under Management Systems and Human Resources, setting and implementing goals and dealing with government regulations receive the highest level of focus. Formal employee development programs and locating assistance for short-term projects receive the least amount of attention in this area. In the area of Market Development, customer communications and service stands out as receiving the most attention. Expansion of U.S. sales and improvement of existing products are also key areas of focus. However, expansion of international sales is the area that receives the lowest level of attention. Under Business and Financial Systems, computerized accounting systems are already implemented by 85% of all manufacturers. Cost systems and inventory control systems also receive a high level of focus. Areas with the least development include financing expansion plans and business re-engineering. For Information Systems, access and use of the Internet and computer systems maintenance are the most highly developed areas. Electronic data interchange (EDI) receives the lowest level of development. Lastly, in the area of Plant Operations/Manufacturing, safety programs receive the most attention, with 88% of all manufacturers currently focusing on this element. Environmental compliance also receives heavy focus. Cellular manufacturing receives the lowest level of development.

Summary of Current and Future Focus Areas—All Regions	Already Do This	Plan to Develop	Total
<b>Continuous Quality Improvement</b>			
Quality assurance teams	57%	6%	63%
Formal quality programs	55	11	66
Implement just-in-time production	54	7	61
Statistical process and control system	29	8	37
ISO 9000 certification or equivalent	22	9	31
CE mark	16	4	20

### Management Systems/Human Resources

Setting and implementing goals	82%	5%	87%
Dealing with government regulations	72	4	76
Team building	68	6	74
Assessment of competencies/opportunities	67	4	71
Incentive based pay systems or programs	50	9	59
Formal employee development program	39	9	48
Locate assistance for short term projects	37	7	44

### Market Development

Customer communications/service	73%	5%	78%
Expand U.S. sales	63	15	78
Improve existing products	61	9	70
Updated marketing plan/strategy	58	11	69
Website development and maintenance	56	11	67
Develop a new product	48	10	58
Develop and use new marketing methods	43	18	61
Begin or expand international sales	35	15	50

### Business and Financial Systems

Computerized accounting systems	85%	2%	87%
Cost systems	74	4	78
Inventory control systems	71	6	77

Business or strategic plan	68	9	77
Financing current operations	67	4	71
Financing improved equipment and facilities	52	14	66
Financing expansion plans	35	14	49
Business re-engineering	29	5	34

### Information Systems

Access to and use of the Internet	78%	4%	82%
Computer systems maintenance	69	4	73
Software/hardware selection	62	6	68
Computer aided design/manufacturing	48	4	52
Management information system	43	6	49
Electronic data interchange	37	4	41

### Plant Operations/Manufacturing

Safety program	88%	2%	90%
Environmental compliance program	74	4	78
Effective production floor layout	65	8	73
Information on new techniques	58	10	68
Materials resource planning	53	3	56
Setup reduction/quick changeover	47	3	50
Automated material handling	32	8	40
Computer numerical control	32	3	35

Bar coding	31	10	41
Energy use monitoring & reduction	31	4	35
Cellular manufacturing	18	2	20

## External Assistance Issues

In identifying management or technical assistance sources, personal contact with the company and referrals from other users of the service are the most significant methods of evaluation. Sixty-nine percent (69%) of all manufacturers use personal contact with the company and 55% use referrals from other users of the service for identifying assistance resources. Ads or articles in newspapers, direct mail pieces and telemarketing contacts are used by less than 30% of respondents.

When receiving information of help, communication with peers is the most highly valued format. More than four in ten (44%) indicate this format is the most preferred method for receiving help, significantly higher than any of the other formats. Group instruction is the least preferred format, with only 12% indicating this is best method.

When it comes to selecting an outside assistance firm, there are three factors that receive the highest ratings: Personal recommendation from a trusted source, experience in my specific industry and referrals from other users of the service. Two-thirds or more of all respondents rate these factors either important or very important in selecting an external assistance firm. Among the least valued factors are closeness to location and academic credentials of personnel.

In terms of actual usage out external assistance resources, suppliers/vendors are the most frequently used outside sources. Three-fourths (75%) of all manufactures have used suppliers or vendors at least once per year during the past five years, significantly higher than any other outside source. The next highest source is trade associations, with 51% of manufacturers using this outside source at least once per year during the past five years. Washington Manufacturing Services has been used at least once per year by 13% of all respondents.

## Staff Development and Organizational Needs

In the area of staff training difficulties, developing production employees has been the most challenging for manufacturers. More than one-third (38%) claim that their company has difficulty training production employees, which is significantly higher than any other area. Nearly half (48%) claim that there company seldom has difficulty training any of their employees. This is

significantly higher in Eastern Washington, where 62% indicate they seldom have training difficulties.

For specific staff development areas, external assistance is most likely to be used for general workplace skills (communication, teamwork, decision making, etc.) and computer programming and maintenance. Forty-percent (40%) would use external assistance for workplace skills while 34% would use external assistance for computer programming and maintenance. Shop floor management techniques and adult basic education are the areas that are the least likely to receive external assistance.

When receiving external assistance for staff development, one-day seminars and customized on-site training programs are the most preferred formats for training. One-day seminars is ranked among the top three most preferred formats by 41% of all manufacturers, while customized on-site training programs are ranked among the top three preferred formats by 39% of all manufacturers. The least preferred formats include cable/satellite TV, customized off-site training, a series of daily classes and multi day conferences.

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