

BOEING AND BEYOND:

Seattle in the Global Economy



by

Frederic A. Morris

JANUARY 2003



PACIFIC COUNCIL ON INTERNATIONAL POLICY
THE WESTERN PARTNER OF THE COUNCIL ON FOREIGN RELATIONS

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Frederic A. Morris*

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**Mr. Morris is Governor Locke's policy advisor for science and technology.
The views in this paper are the author's alone.*



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EXECUTIVE SUMMARY

A combination of strong research institutions, highly educated workforce, entrepreneurial zest, enviable quality of life, and a dash of serendipity has made Seattle one of the big winners of globalization. The anti-globalization image that some readers may associate with the city from the violent protests that disrupted the 1999 World Trade Organization meeting could not be more misleading.

Indeed, Seattle stands out as a city that has thrived in two eras of globalization. In the first era dominated by natural resources and manufacturing beginning a century ago, Seattle's economy thrived by exporting timber and forest products from the Pacific Northwest hinterland, then seafood and agriculture, and finally trucks and, above all, Boeing aircraft. Although these industries remain important, Seattle has thrived in a second era of globalization by offering the infrastructure and quality of life that attract such knowledge-intensive companies as software giant Microsoft, e-commerce pioneer Amazon.com, and a major drug discovery facility of biotech leader Amgen (through acquisition of Immunex)—pillars of the innovation economy that could well have located in any one of a number of regions.

Yet Seattle's continued place at the forefront of the global economy is by no means guaranteed. This report examines why the region's preeminent role as a global player is fragile, and what can be done to shore it up. Among the findings:

Seattle must continually re-recruit the companies already in the region.

Without demonstrating increased sensitivity to the needs of its leading companies, the region risks other firms' following Boeing in moving corporate headquarters or manufacturing operations elsewhere. This risk is compounded by the ease with which companies can move in a globalized era, as well as the consolidation in many industries that raises the likelihood that successful local firms will be acquired by companies located elsewhere. Seattle must upgrade assets that underpin its core business clusters, including the strength of its research institutions, the skills of its workforce, the quality of its education system, and the adequacy of its physical infrastructure.

The transition to the new globalization has spawned at least some ambivalence and growing pains within Seattle that must be addressed.

The demographics of the new globalization have created divisiveness within the Seattle region, most obviously between the well-paid knowledge workers who participate directly or indirectly in the innovation economy and much of the rest of the population. Local leaders must offer an inclusive vision of the future in which all have the opportunity to participate in the growth created by globalization.

Sustaining Seattle's momentum in a globalized world will require regional leadership and cooperation.

Seattle's economic success relative to the rest of Washington State courts political isolation from it, which is dangerous for all. State investment in Seattle infrastructure, from roads to schools, is critical for the future prosperity of all of Washington. Seattle must make a better case for the many common interests it shares with the rest of the state.

PREFACE

Fred Morris's paper on the Seattle region is the third to be published from the Pacific Council's project, "Mapping the Local Implications of Globalization." The earlier papers are *San Diego, Baja California and Globalization: Coming from Behind* by Richard Feinberg and Gretchen Schuck; and *Mapping Globalization Along the Wasatch Front* by Earl Fry. Forthcoming publications in the series include *Globalization in the San Francisco Bay Area: Trying to Stay at the Head of the Class*, by Sarah Bachman, and an overview report by Gregory F. Treverton, Pacific Council senior fellow and director of the Mapping project. In early 2003, we will also publish two in-depth analyses on themes related to this project: one on immigration, and the other on infrastructure for international trade.

Fred Morris describes a Seattle region that has benefited from both the current period of globalization and an earlier, 19th-century, version. In the first round of globalization, Seattle's niche was shipping and timber, and manufacturing. This "old" globalization of trade in objects (rather than investments in information) came to be symbolized by Boeing aircraft. Microsoft is the universally recognized symbol of Seattle's preeminence in the "new" globalization. Yet, for all of Seattle's success, some of globalization's downsides are visible as well. Even before the high-tech collapse, the driving force of high tech was uneven across Washington, with marked disparities between "haves" and "have-nots." Moreover, Seattle's success tends to separate it from the rest of the state—a source of friction that has played some part in Seattle's inability to address looming transportation bottlenecks that could damage its competitiveness in the global marketplace. More recently, Boeing's decision to move its headquarters to Chicago from Seattle has been a reminder that firms in the global economy are footloose. It has also given new impetus to Seattle's drive to remain competitive.

This and other reports in the Pacific Council's "Mapping" series should be of keen interest to government and private-sector decision-makers interested in the implications of globalization at the subnational level. In a larger sense, the series tells an important story about practical, local stakes in the global environment, and in American international policy.

The Pacific Council expresses its appreciation to the Ford Foundation, which had the vision to fund this project; to Council colleagues Gregory F. Treverton and Dan Biers; and to project participants and advisors, including Richard Feinberg, Earl Fry, Xandra Kayden, and Sarah Bachman. Comments on this paper and the project as a whole are welcomed, and may be directed to the author, the project director, or me, at the Pacific Council's offices in Los Angeles.

Ian O. Lesser
Vice President, Director of Studies
December 2002

I. INTRODUCTION

When Alden Blethen purchased *The Seattle Times* in 1896, he envisioned the transformation of Seattle into a cosmopolitan, international city whose docks welcomed the fleets of the world.¹ Prompted by the Klondike gold rush shortly thereafter, the city began to realize that vision, and Seattle has looked outward for much of its prosperity ever since. With the emergence of what is widely termed globalization, the city's relationship to the world seems to have changed fundamentally. While not qualifying as a global city in the same sense as London, New York, or Tokyo, which serve as command centers for the world economy,² Seattle is arguably more globally connected than most other cities of comparable size. Building on its export-oriented heritage, Seattle has forged a leading role in the technology-based innovation economy, on which globalization depends.

Helping the global connection tremendously is Seattle's welcome embrace of foreigners. Indicators of the city's openness range from the multilingual signs and announcements at Sea-Tac Airport to the Japanese majority ownership of the Seattle Mariners baseball team, which was accomplished with almost none of the local controversy that might have been expected in a heart-land city. These owners subsequently helped the team land the Japanese superstar outfielder Ichiro Suzuki, now an icon of Seattle's global brand.

For our purposes, the Seattle region constitutes the Primary Consolidated Statistical Area of Seattle-Bellevue-Everett together with that of Tacoma, minus Island County. This equates to King, Pierce, and Snohomish counties. But much of the relevant statistical information is not aggregated at these exact levels and has to be taken as it can be found. And the phenomenon of globalization is arguably most concentrated in Seattle itself and its immediate suburbs. Accordingly, much of this paper focuses on that center.

Figure 1
The Seattle Region



Source: City Maps Inc., aaccessmaps.com

II. DEFINING GLOBALIZATION

“From the beginning,
Seattle has
depended both on the
business of international
trade and on production
for export.”

There is no single accepted definition of globalization. *New York Times* columnist Thomas Friedman does as good a job as anyone in capturing the essence of globalization:

“...the inexorable integration of markets, nation-states, and technologies to a degree never witnessed before—in a way that is enabling individuals, corporations and nation-states to reach around the world farther, faster, deeper and cheaper than ever before, and in a way that is enabling the world to reach into individuals, corporations and nation-states farther, faster, deeper and cheaper than ever before.”³

As Friedman notes, a similar period of integration occurred from the mid-1800s to the late 1920s, built on the dramatic shrinkage in transportation costs brought about by the railroad, the steamship and the automobile. In contrast, today’s globalization is built on the even more powerful effects of falling telecommunications costs:

[W]hat is new today is the degree and intensity with which the world is being tied together into a single globalized marketplace and village. What is also new is the sheer number of people and countries able to partake of today’s globalized economy and information networks, and to be affected by them.⁴

Seattle seems a good exemplar of Friedman’s two eras of globalization. At the turn of the 19th century, Seattle grew and prospered as a railroad terminus and Pacific shipping port. From the beginning, Seattle has depended both on the business of international trade and on production for export—beginning with timber and forest products, then seafood and agriculture, and finally trucks and, above all, Boeing aircraft. This first round of globalization was accompanied by significant immigration and the formation of identifiable immigrant communities, exemplified by the once-independent city of Ballard (Scandinavian) and the International District (East Asian). Concurrently, Seattle developed a very strong organized labor presence, embodied by the Longshoremen’s Union, tempered by widespread recognition of the importance of an open trading system to the region’s economy (public labor rhetoric occasionally to the contrary).

This first era of globalization never really ended. However, within the past decade and a half the new era of globalization arrived forcefully in Seattle, in at least two senses.

First, Seattle entrepreneurs and their companies created many of the technologies and business models on which globalization depends. Bill Gates and Microsoft provided the DOS in Thomas Friedman’s “DOScapital” and turned it and the follow-on Windows into the standard personal-computer operating system throughout the world. Craig McCaw transformed an inherited cable-television company into one of the world’s first outstandingly successful cellphone systems (since acquired by AT&T). In Amazon.com, Jeff Bezos created the first worldwide brand in e-commerce. Rob Glaser of RealNetworks did the same for streaming audio and video; ditto Starbucks’ Howard Schultz for coffee.

Second, these very companies are themselves worldwide businesses that exemplify the new globalization era: None is only, or even primarily, an exporter. Rather, these companies are highly integrated into the world markets that they serve, adapting their products and services to local conditions, employing worldwide workforces, and relying on networks of international suppliers and partners. At the same time, leading companies from the first era of globalization have adapted and prospered in the new era.

Today's regional leaders have attempted to project Seattle as an international city, generally with positive results. The region has attracted major international meetings, including summits of the Asia-Pacific Economic Cooperation forum and the WTO. It has built facilities that support such events, including the Washington Trade and Convention Center, the Bell Harbor International Conference Center, and the World Trade Center. And it has transformed its central business district into a vibrant 24-hour-a-day downtown, with numerous first-class hotels, restaurants, shops, condominiums and apartments, and cultural offerings, largely without sacrificing the texture of grittier neighborhoods such as the International District, Pike Place Market, Pioneer Square, and Belltown. In a recent survey of international publications, positive references to Seattle outnumbered negative coverage by more than 10 to 1, recognizing Seattle as, among other things, a "New Economy/Technology Mecca" and a "gateway to Asia."⁵

"Seattle entrepreneurs
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The region's political leaders and other opinion shapers largely support the new era of globalization, as does the general public on most issues. The congressional delegation routinely supports an open trading system, including votes on the North American Free Trade Agreement, the WTO, and permanent normal trade relations with China. Rarely if ever have these votes become election issues, even for organized labor. In the immediate aftermath of the November 1999 WTO protests, opinion polling indicated continuing public support for the hosting of such meetings.⁶

Still, the transition to the new globalization has spawned at least some ambivalence and growing pains. The Seattle City Council seemed to reflect widespread public sentiment in deciding not to lend the city's support to civic leaders' proposal to pursue the 2008 Summer Olympics (initially conceived as a binational bid with Vancouver, British Columbia). Of course, defeat of this proposal can be defended without reference to any implied opposition to Seattle as a global city. Nonetheless, it is precisely the kind of undertaking that other cities desirous of cementing their international status—such as Sydney, Australia or, closer to home, Vancouver and Salt Lake City—have recently undertaken. The reluctance to bear the burdens of such costly and disruptive mega-projects betrays at least some nostalgia for a simpler, friendlier, smaller Seattle of an earlier era.

III. INTERNATIONAL TRADE

Perhaps the most obvious measure of Seattle's place in the global economy is its international trade. Total merchandise trade for Washington in 2000 totaled \$107.1 billion (\$42.1 billion in exports, \$65 billion in imports).⁷ Of the merchandise exported, approximately \$34 billion consisted of products made in the state. The Washington Council on International Trade reported that, in 2000, Washington was the fifth largest exporting state in the United States by volume, after California, Texas, New York, and Michigan.⁸

Limitations in trade statistics imply that these figures actually understate the importance of trade to the state. In particular, they do not cover exports of services, including software. The Council estimates that service exports totaled \$13.7 billion in 2000, a figure equal to 40 percent of all other Washington-made exports. Further, the trade statistics exclude "intra-firm" trade, which is trade within a single company that has manufacturing operations in more than one country,⁹ a practice common to regional firms as diverse as Boeing and Skyway Luggage.

Seattle is the focal point for the bulk of Washington's trade. Exports from the Seattle region grew rapidly in the 1990s (Table 1). Further, these exports supported 540,000 regional jobs, accounting for more than one out of every four employees. About 30 percent of the workers were directly involved in producing exports; as a result of the trade-multiplier effect the rest were employed in retail trade, services, and government.¹⁰ The relative importance of trade to the Seattle region and to the state can be conveyed in terms of per capita exports, or the "openness ratio."¹¹ As shown in Table 2, Seattle's ratio is one of the highest in the nation. Throughout the 1990s, Seattle's openness ratio was substantially greater than the national average (Tables 3-5).

Table 1
Seattle Exports (\$000s), 1993-1999¹²

1993	24,930,970
1994	22,527,851
1995	18,914,309
1996	22,570,826
1997	28,409,637
1998	35,254,617
1999	33,580,982

Includes Seattle-Bellevue-Everett, plus Tacoma.
Source: International Trade Association, U.S. Department of Commerce

Table 2
Metropolitan Exports-to-Population Ratios, 1999¹³

Metropolitan Area	1999 Merchandise Exports (\$000s)	Population 1999 (est.)	Ratio
San Jose	28,255,739	1,647,000	17.15
Seattle/Bellevue/Everett	32,356,050	2,335,000	13.86
Miami	11,942,051	2,176,000	5.49
San Francisco	9,034,987	1,686,000	5.36
San Diego	8,963,760	2,821,000	3.18
New York	24,484,725	8,713,000	2.81
Chicago	21,144,095	8,009,000	2.64
Los Angeles/Long Beach	23,904,708	9,330,000	2.56

Source: International Trade Association, U.S. Department of Commerce; US Census Bureau, Statistical Abstract of the United States

Of Washington's leading exports (see Table 6), aircraft, high technology products, automatic data processing machines, aircraft parts, seafood, motor vehicle parts, and typewriter office parts are all likely to originate mainly from the Seattle region. In addition, the headquarters of several major forest products firms are located here. Table 7 provides export data for Seattle specifically.

Trade generates additional employment, in two ways. First, imports destined for final use elsewhere in the United States or Canada create jobs for those who handle and process the goods upon entry. A recent study estimates that in 1997, these imports directly and indirectly created 43,220 jobs.¹⁹ Although that report does not identify the location of these jobs, it seems likely that most of them are in the Seattle region, where the Ports of Seattle and Tacoma and Sea-Tac Airport are located. In addition, the same study finds that imports consumed in the state indirectly generated 117,900 jobs, primarily in wholesale or retail trade.²⁰ These jobs too are likely concentrated in the Seattle region, although probably to a lesser extent than the jobs associated with imports destined for final use elsewhere.

Table 3
Seattle Openness Indicators, 1993-1999¹⁴

	1993	1994	1995	1996	1997	1998	1999
Exports (\$000s)	24,930,970	22,527,851	18,914,309	22,570,826	28,409,637	35,254,617	33,580,982
Population	2,716,068	2,742,876	2,775,942	2,810,769	2,863,812	2,915,778	2,950,251
RATIO	9.18	8.21	6.81	8.03	9.92	12.09	11.38

Includes Seattle-Bellevue-Everett, plus Tacoma.

Sources: International Trade Association, U.S. Department of Commerce; U.S. Census Bureau

Table 4
Washington State Openness Indicators, 1993-1999¹⁵

	1993	1994	1995	1996	1997	1998	1999
Exports (\$000s)	27,937,726	25,062,327	22,032,006	25,498,048	31,745,600	37,960,354	36,825,865
Population	5,247,704	5,334,986	5,431,024	5,509,963	5,604,105	5,687,832	5,756,631
RATIO	5.32	4.70	4.06	4.63	5.66	6.67	6.40

Sources: International Trade Association, U.S. Department of Commerce; U.S. Census Bureau

Table 5
United States Openness Indicators, 1993-1999¹⁶

	1993	1994	1995	1996	1997	1998	1999
Exports (\$millions)	388,537	430,485	484,971	522,660	591,233	595,218	611,781
Population (000s)	257,783	260,327	262,803	265,229	267,784	270,248	272,691
RATIO	1.51	1.65	1.85	1.97	2.21	2.20	2.24

Sources: International Trade Association, U.S. Department of Commerce; U.S. Census Bureau

Table 6
Washington State's Top Exports 1999 (\$ million)¹⁷

1. Aircraft	18,281.5
2. High Tech	3,015.7
3. Forest Products	2,671.2
4. Aircraft Parts	985.6
5. Automatic Data Processing Machines	761.2
6. Seafood	649.7
7. Wheat	647.7
8. Corn	631.3
9. Typewriter/Office Parts	506.6
10. Motor Vehicle Parts	470.2
Other	1,478.8
TOTAL EXPORTS	42,099.5

Source: Washington Council on International Trade

Table 7
Seattle Exports by Product Sector 1999 (\$ million)¹⁸

1. Transportation Equipment	25,633
2. Non-manufactured Commodities	1,790
3. Lumber & Wood Products	1,051
4. Industrial Machinery & Computers	973
5. Scientific & Measuring Instruments	673
6. Food and Tobacco Products	601
7. Electric & Electronic Equipment	524
8. Paper, Printing & Publishing	262
9. Misc. Manufactures	241
10. Chemical Products	114
Other	494
TOTAL EXPORTS	32,356

Seattle-Bellevue-Everett only.

Source: International Trade Association, U.S. Department of Commerce

IV. GLOBAL COMPANIES

The strong trade performance is largely a reflection of the success of Seattle's leading multinationals in global markets (see Table 8). The following subsection describes several leading examples of "old era" multinationals based on natural resources and manufacturing; it is followed by a subsection describing leading examples of "new era" multinationals based on intellectual property and new business models. At the same time, it cannot be overstated how important science and technology have become to the firms whose origins date to the first era. Boeing, Weyerhaeuser, PACCAR and many other of these companies are R&D-intensive and are formidable international competitors based in large measure on their application of cutting-edge technology

OLD ERA

Boeing. The Boeing Company is the largest U.S. exporter, with international sales accounting for exactly one-third of its total sales in 2001.²¹ Except for one brief hiatus, the company was headquartered in Seattle from its inception in 1915 until its move to Chicago in September 2001.²²

Boeing is the world's largest manufacturer of satellites, commercial jetliners, and military aircraft.²³ It is also NASA's largest contractor. As of July 2002, Boeing employed 172,400 people in 26 states and more than 60 countries. Of that total, 65,000 people worked in the state of Washington, primarily in the Seattle region.²⁴

Although born in the prior era of globalization, Boeing exemplifies the new era, as well. Virtually all of its products and services are knowledge-intensive and employ the most advanced technologies. Information technology permeates the company's design, development, manufacturing, and business processes. Competing vigorously in markets around the world, Boeing recently established the new position of senior vice president for international relations. The position was filled by career diplomat Thomas Pickering, who has formed a "state department" for Boeing to

“forge critical new partnerships and relationships around the world.”²⁵ With the departure of Boeing’s corporate headquarters and approximately 500 employees to Chicago, Seattle remains headquarters to Boeing Commercial Airplanes, one of three operating groups within the company. Despite the corporate headquarters’ departure and continuing layoffs after September 11, 2001, Boeing will likely continue to be central to Seattle’s status as a globally important business center and one of the region’s leading technology companies. Indeed, it remains Seattle’s poster child for globalization.

Table 8
Largest Public Companies Headquartered in the Seattle Region (ranked by 2000 Revenues)²⁶

Company	Revenues (\$ millions)	Location	Business
1. COSTCO	32,164.0	Issaquah	Membership warehouses
2. Microsoft	23,000.0	Redmond	Software
3. Weyerhaeuser	15,980.0	Tacoma	Forest products
4. Washington Mutual	15,760.0	Seattle	Financial services
5. PACCAR	7,919.0	Bellevue	Truck manufacturing
6. Safeco Corp.	7,118.0	Seattle	Insurance
7. Nordstrom Inc.	5,528.5	Seattle	Department stores
8. Puget Sound Energy, Inc.	3,441.7	Bellevue	Utility
9. Airborne Inc. dba Airborne Express	3,276.0	Seattle	Air express
10. Amazon.com, Inc.	2,762.0	Seattle	Online retailer
11. Alaska Air Group Inc.	2,177.2	Seattle	Holding company for Alaska & Horizon airlines
12. Starbucks Coffee Co.	2,169.2	Seattle	Coffee roaster & retailer
13. VoiceStream Wireless Corp.*	1,922.7	Bellevue	National wireless communications network
14. Expeditors International of Washington Inc.	1,700.0	Seattle	International logistics company
15. AT&T Wireless Group	1,044.8	Redmond	Digital wireless network offering voice & data communications
16. Labor Ready Inc.	976.6	Tacoma	Temporary employment services
17. Immunex Corp.**	861.8	Seattle	Biopharmaceuticals
18. Western Wireless Corp.	835.0	Bellevue	Wireless telecommunications
19. Zones Inc.	634.1	Renton	Computer and software mail-order
20. Washington Federal Savings	509.3	Seattle	Real estate loans

*Since acquired by Deutsche Telekom.

**Since acquired by Amgen Inc., with headquarters in Thousand Oaks, Ca.

Source: Puget Sound Business Journal, Book of Lists

Weyerhaeuser. Weyerhaeuser is the world’s largest private owner of merchantable softwood timber and the world’s largest producer of softwood lumber and softwood market pulp. The company grows and harvests trees, manufactures and sells forest products, engages in real estate construction and development, and recycles office wastepaper, newspaper and corrugated boxes. It employs about 58,000 people in 18 countries (primarily the United States and Canada).²⁷ With exports accounting for 21 percent of total consolidated sales and revenues, Weyerhaeuser remains the top forest-products exporter in the United States and among the top U.S. exporters overall. The company’s timber resources are located primarily in the United States and Canada, but they also include partnership holdings in Australia, New Zealand, and Uruguay.²⁸

PACCAR. As a diversified, multinational company, PACCAR manufactures heavy-duty trucks sold around the world under the Kenworth, Peterbilt, DAF and Foden nameplates. The company competes in the North American market with its medium-duty models sold under the Peterbilt and Kenworth nameplates. In addition, DAF manufactures medium-duty trucks in the Netherlands and Belgium for sale throughout Europe, the Middle East and Africa, and is the exclusive distributor in Europe for lighter-duty trucks manufactured by Leyland Trucks (UK).²⁹

NEW ERA

Microsoft. Microsoft is, by most measures, the worldwide leader in software, services and Internet technologies for personal and business computing. Founded in 1975 by Bill Gates and Paul Allen, Microsoft moved from Albuquerque to Bellevue in 1979 and to its current corporate campus in suburban Redmond in 1986. As of October 2002, Microsoft employed 25,660 people in the Puget Sound area, 9,426 people elsewhere in the United States and 17,696 abroad.³⁰ Of Microsoft's \$28.37 billion in revenues for the fiscal year ending June 2002, international revenues accounted for 27 percent.³¹ Microsoft maintains subsidiary offices in 78 countries and research centers in Beijing, China, and Cambridge, England, as well as a development center in Hyderabad, India.

Starbucks. Founded in 1971, Starbucks purchases and roasts whole-bean coffees and sells them, along with Italian-style espresso beverages, pastries, and coffee-related accessories and equipment, primarily through its retail stores worldwide — including more than 3,900 in the United States alone. As of December 2001, Starbucks had more than 1,000 international locations in 23 markets, including more than 130 in Japan.³² By fiscal year 2003, Starbucks plans to have 1,500 international locations, including 650 in Europe and the Middle East, 800 in Asia, and 50 in Latin America. In addition to its international retail operations, Starbucks imports its basic raw material—coffee beans—from Latin America, Africa, and Southeast Asia.³³ The company has about 57,500 employees worldwide.³⁴

Amazon.com. Since opening its virtual doors in 1995 as an online bookseller, Amazon.com has expanded to become the world's top-selling Website for music, DVD and video, and books. More than 25 million customers from 150 countries have purchased products from Amazon.com, which also operates sites in French, German, and Japanese, and a site in the United Kingdom. In September 2000, Amazon.co.uk became the first European e-commerce site with 2 million customers.³⁵ As reported in December 2001, Amazon.com had 9,000 employees worldwide.³⁶

Others: Many other Seattle firms, large and small, have global connections, including the following:

- *RealNetworks* is the pioneer and recognized leader in media delivery via the Internet, with hundreds of millions of registered users throughout the world.³⁷
- *Frank Russell* is a worldwide investment company that employs more than 1,300 associates worldwide.³⁸ Headquartered in Tacoma, with primary offices in New York, London, Toronto, Singapore, Sydney, Tokyo, Paris, and Auckland, the company generated approximately \$500 million in revenues in 2001. Russell manages \$70 billion for retirement plans and for investors, and it is also one of the world's largest retirement-plan consultants, advising clients in 35 countries on the investment of more than \$1.8 trillion in assets.³⁹ Previously a private

company, Russell became a subsidiary of Northwestern Mutual in January 1999. It still retains its name, management, office locations, staffing, and investment approach.

- *Corbis Corporation* is a leading provider of digital images to both the consumer and creative-professional markets, with a library made up of the world's most significant photography and fine art from more than 3,000 creative sources. Headquartered in Seattle, it maintains offices in Chicago, Los Angeles, and New York, as well as in six European cities and four Asian cities.⁴⁰
- *Airborne Express* provides full-service transportation and logistics services to businesses around the globe, with delivery service to more than 200 countries worldwide.⁴¹
- *Expeditors International*, a leading freight forwarder and customs broker headquartered in Seattle, maintains 170 offices and service centers in more than 50 countries worldwide.⁴²
- *Nintendo of America*, based in Redmond, serves as headquarters for the Japanese company's operations in the Western Hemisphere. More than 40 percent of U.S. households own a Nintendo game system.⁴³

Technology, clearly, is Seattle's largest, fastest-growing and highest-paying sector. It propels much of the rest of the state's economy and employs more than 11 percent of Washington's workforce; each of those jobs creates about 2.5 more jobs. High-technology business therefore accounts for more than 38 percent of total state employment.⁴⁴ According to the Progressive Policy Institute's *2002 State New Economy Index*, which tracks the effect of technology and related factors on state economies, Washington ranked second behind Massachusetts and ahead of California, Colorado, and Maryland.⁴⁵

Within the state, the high-tech clusters of software, biotechnology, computers, and instruments and electronics are concentrated overwhelmingly in the Seattle region. Of the state's high-tech jobs, 67 percent are in King County alone.⁴⁶ In the Progressive Policy Institute's *Metropolitan New Economy Index*, issued in April 2001, Seattle ranked third, behind San Francisco (1) and Austin (2), and just ahead of San Diego (5) and Salt Lake City (9).⁴⁷ In *Cyberstates 2002*, a report which uses a narrower definition of technology than the Progressive Policy Institute's, Seattle ranked 15th in high-tech employment, with over 135,700 high-tech workers.⁴⁸

Even as the state's economy cooled substantially in 2001, employment in software declined only about 2.5 percent from its peak in June 2001 to June 2002.⁴⁹ According to regional economist Paul Sommers, "In a macroeconomic sense, high tech has clearly become the predominant industry in the Seattle area. You can look at other indicators such as personal income, wages, wealth, philanthropy, even who is running for political office—it's a whole new ball game in Seattle."⁵⁰

V. SEATTLE'S COMPETITIVE ADVANTAGE

One reason Seattle is home to so many larger multinationals, particularly global technology companies, is its success in creating its own competitive advantage. This edge starts with physical infrastructure, which continues to be an important determinant of success in the global economic system.⁵¹ It goes on to include an impressive combination of research institutions, human capital, entrepreneurial climate and quality of life that has played a key role in Seattle's booming software and Internet, wireless communications and biotechnology industries.

A. Infrastructure

With the exception of highway transportation, Seattle has infrastructure adequate to support and attract global businesses.

Air. Seattle-Tacoma International Airport (Sea-Tac), located 12 miles south of downtown Seattle and 20 miles north of Tacoma, was the nation's 17th busiest passenger airport and the 20th busiest cargo airport in 2000.⁵² In that year, the airport handled 26 million domestic and 2.4 million international passengers.⁵³ Table 9 shows the top 10 international origins and destinations. Table 10 shows the carriers with direct international flights, and Table 11 lists cities served by direct flights from Seattle. Sea-Tac is now in the midst of a capital-improvement program scheduled for completion in 2010 to add the capacity needed to "serve a growing region whose economy is

increasingly intertwined with international markets."⁵⁴ A key element of this program is addition of a third runway to reduce flight delays and enable the airport to operate efficiently in most types of weather. (Frequent low-cloud conditions allow use of only one of the two parallel runways for arrivals, causing delays.) The third runway has encountered opposition, primarily from nearby residents concerned about increased noise, but it is expected to go forward.

Marine Ports. Both Seattle and Tacoma are home to major international ports. In 2000, the Port of Seattle ranked fifth among U.S. ports in dollar value of imports and exports (\$32.3 billion), and the Port of Tacoma ranked tenth (\$19.8 billion). If these amounts were combined, the two ports would rank fourth nationally (\$52.1 billion), substantially behind Los Angeles (\$101.8 billion), Long Beach (\$98.2 billion), and New York (\$80.9 billion) but ahead of Houston (\$43.4 billion).⁵⁵ Also located in the region is the Port of Everett, which operates eight berths on 100 acres of land and handles about 1 million tons of cargo per year.⁵⁶ Table 12 shows the rankings of Washington export buyers by country.

Table 9
Sea-Tac Airport Top 10 International Origin/Destination Markets (1998)⁵⁹

City	O&D Passengers	Percent of International O&D
1. London	140,511	9.4%
2. Tokyo	97,000	6.5%
3. Vancouver, Canada	76,157	5.1%
4. Taipei	63,414	4.2%
5. Toronto, Canada	60,946	4.1%
6. Puerto Vallarta, Mexico	60,610	4.0%
7. San Jose Del Cabo, Mexico	54,830	3.6%
8. Victoria, Canada	53,329	3.5%
9. Copenhagen	49,894	3.3%
10. Seoul	43,750	2.9%

Source: Port of Seattle, 1998 Airport Activity Report.

Highways. Virtually all of the cities in the Seattle region are arrayed along the north-south Interstate 5 or its spur, Interstate 405, which leaves I-5 north of Seattle to connect the eastside cities of Redmond, Bellevue, and Renton, rejoining I-5 south of Seattle just east of Sea-Tac Airport. Indeed, the region is sometimes referred to as the I-5 Corridor. The Eastside connects to Seattle via two bridges across Lake Washington. Traffic is often congested along all of these routes, in both directions, for much of the day. In the Texas Transportation Institute's 2001 Urban Mobility Study, Seattle-Everett tied for third place among the nation's urban areas in terms of percent of daily travel in congestion. (Los Angeles was the most congested area, San Francisco-Oakland the second most congested, and Chicago tied with Seattle for third place.⁵⁷) See Figure 2 for the traffic flows around Seattle in a typical rush hour. As the Washington Competitiveness Council appointed by Governor Gary Locke has observed, "Transportation is, by far, the most pressing infrastructure challenge facing Washington State. Washington citizens currently lose \$2 billion per year because traffic congestion wastes time and fuel and causes shippers' delays—all of which increase costs for growers, manufacturers, merchants, and consumers."⁵⁸

Regional Transit. As the result of state legislation in 1993, King, Pierce, and Snohomish counties formed a regional transportation authority known as Sound Transit to build and operate a system of express buses, commuter rail, and

Table 10
Air Carriers with Direct International Flights (2000)⁶⁰

Aeroflot	British Airways	Northwest Airlines
Air Canada	EVA Airlines (Taiwan)	Scandinavian Airlines
Alaska Airlines	Horizon	United Airlines
American Airlines		United Express/Skywest
Asiana (Korea)		

Source: City of Seattle, "Datasheet: Transportation"

Table 11
Cities Served by Direct Flights from Seattle (2000)⁶¹

Amsterdam	Kelowna	Seoul
Bangkok	La Paz	Taipei
Bogota	London	Tokyo
Calgary	Los Cabos	Toronto
Cancun	Manzanillo	Vancouver
Caracas	Mazatlan	Victoria
Copenhagen	Moscow	
Edmonton	Osaka	
Ixtapa	Paris	
	Puerto Vallarta	

Source: City of Seattle, "Datasheet: Transportation"

Table 12
Rankings of Washington State Export Buyers (2000)⁶²

Buyer	Exports, \$ Million	Percent of Washington Exports
1. European Union	\$12,322	36.2%
2. Japan	4,833	14.2%
3. Canada	3,074	9.0%
4. China	1,990	5.9%
5. South Korea	1,917	5.6%
6. Taiwan	1,554	4.6%
7. Saudi Arabia	651	1.9%
8. Singapore	634	1.9%
9. Australia	550	1.6%
10. Mexico	505	1.5%
Others	5,986	17.6%

Source: Washington Council on International Trade, Washington State Trade Picture

light rail. Elements of the first two are now in place: A number of express bus services run throughout the region, and the Sounder commuter train operates between Tacoma and Everett with several intermediate stops.

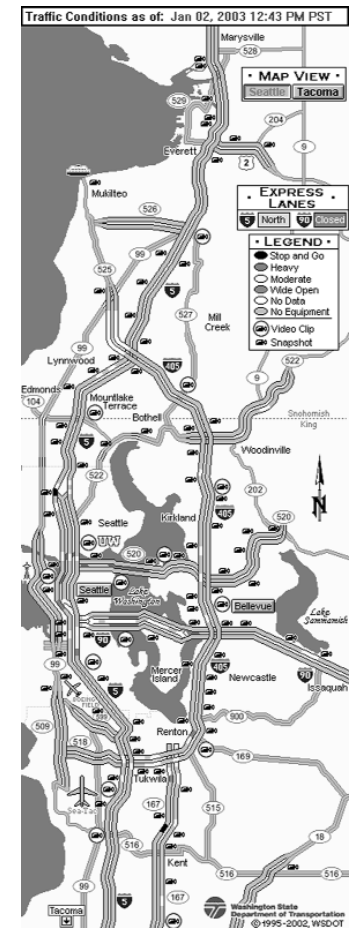
Sound Transit's Central Link light rail system was scheduled to begin service in 2006, ultimately providing service from north to south Seattle, including a station at Sea-Tac Airport. In 2001, the agency was subjected to considerable public criticism as cost estimates for the light-rail system were rising, the length of the proposed route shrinking, and the completion date receding ever further into the future.⁶³ More recently, however, a citizen panel appointed to monitor Sound Transit's performance appears to have concluded that many of the agency's problems are now in hand.⁶⁴ However, in November 2002, state voters approved Initiative 776, which among other things would eliminate a 0.3 percent vehicle-excise tax for Sound Transit paid in most parts of King, Pierce and Snohomish counties, costing Sound Transit an estimated \$699 million,⁶⁵ hardly an expression of public confidence. At the same time, Seattle voters approved a 14-mile, \$1.7 billion monorail line to be funded through a tax on cars registered in Seattle and to be built and operated by a separate entity known as the Seattle Popular Monorail Authority.⁶⁷

Railways. Everett, Seattle, and Tacoma are served by the Burlington Northern Santa Fe Railway. Seattle and Tacoma are also served by the Union Pacific Railroad. The Port of Tacoma operates two yards to move containers between ship and rail; one of them was the first dockside railyard built on the West Coast.

Telecommunications. The Seattle region is a telecommunications hub. On the basis of a combination of factors, including number of business domains, net use, user expertise, and local available content, in May 2002 Yahoo! Internet Life ranked Seattle as the fifth most wired city in the nation, behind San Francisco, San Jose, Austin, and Boston.⁶⁸ A narrower spring 2002 index by the Media Audit based on percentage of adults accessing the Web ranked Seattle fifth behind Madison, Wisconsin, and Washington, D.C., which tied for first; Ann Arbor, Michigan; Austin; and Denver.⁶⁹ In Tacoma, the innovative Click! Network provided by municipally owned Tacoma Power offers area residents a wide range of cable TV, high-speed Internet and broadband services. The nation's largest city-owned telecommunications network, Click! underpins Tacoma's motto as America's #1 Wired City.⁷⁰

The region's connectivity has been further enhanced by the establishment of the Pacific Northwest Gigapop, which connects the region to the speediest networks in the country.⁷¹ In addition to the statewide K-20 network, which connects the state's school districts and institutions of higher education with high-speed data, video, and Internet services,⁷² King County is building the Institutional Network (I-Net) to provide approximately 300 schools, libraries, and government sites throughout the county with access to two-way video, voice, and data services.⁷³

Figure 2
Seattle Vehicle Traffic Flows⁶⁵



Source: Washington State, Department of Transportation

Although those rankings and developments are important, they are not as fundamental as the region's fiber-optic backbone's capacity and connectivity. These assets are increasingly important for enhancing the competitive advantage of Seattle-based businesses and, therefore, for the region itself in attracting and retaining firms. As the Washington Competitiveness Council noted, state-of-the-art telecommunications infrastructure and services are "especially critical in a state that is home to so many high-technology industries that depend on high-speed telecommunications."⁷⁴ Data on this set of metrics are closely held, and those data that are available are often based on guesswork. However, one knowledgeable observer concludes that Seattle is essentially "best in the otherwise badly-off Northwest."⁷⁵ Specifically, with respect to current and planned fiber capacity connecting to the rest of the United States, Seattle is not in the top cities in the western United States: It is probably behind San Francisco, Silicon Valley, Los Angeles, and San Diego, somewhat behind Orange County and Denver, and just ahead of Portland, Oregon, and Vancouver, B.C. With respect to international fiber (connections to East Asia), Seattle may be somewhat better off, but still lags behind California.

B. Higher Education and Research

Strong institutions of higher education and research are key to generating the intellectual property and the skilled workforce that drive the knowledge-based economy on which globalization depends. Such organizations also give birth to new products and businesses, create an environment that attracts technology-based firms and scientists from elsewhere, and establish credibility with venture capital and other investors. In Seattle, the two major research institutions are the University of Washington and the Fred Hutchinson Cancer Research Center, both of which have strong international connections.

University of Washington. With about 35,000 students and 3,900 teaching and research faculty, the University of Washington is the state's major research university. In its 2003 graduate school rankings, *U.S. News and World Report* rates the university first among medical schools (primary care), 10th among medical schools (research), fifth in biomedical engineering, seventh in computer science, and eighth in computer engineering.⁷⁶ Additionally, it is regularly the second- or third-ranking university in federally financed research and development expenditures.⁷⁷ In a 2001 survey by *Technology Review*, it ranked fifth among American universities in licensing income.⁷⁸

Clearly, the university provides Seattle a major competitive advantage when seeking technology-related industry. For example, while Bill Gates' move of Microsoft from Albuquerque to his hometown of Seattle is often cited as the prototypical element of good luck, it seems unlikely that the company would have located in Seattle in the absence of a strong computer science department at the University of Washington, where Gates and cofounder Paul Allen gained after-hours experience with computers in their high school days. In recent years, Intel's research laboratory at the university has provided additional depth in computer science and engineering.

The University of Washington also has a number of international science and engineering collaborations. As an example, the Asia Pacific Economic Cooperation Emerging Infections Network enables better collaboration by policymakers, health officials, and researchers throughout the Pacific Rim by providing timely information on issues of emerging infectious diseases.

Hutchinson Research Center. The Fred Hutchinson Cancer Research Center is one of the nation's 35 comprehensive cancer research centers. Recognized internationally for its pioneering

work in bone-marrow transplantation, the Center employs over 2,300 people in four divisions: Basic Sciences, Clinical Research, Public Health Sciences, and Human Biology. In recent years, it has been the recipient of more federal research investment than any other of the nation's comprehensive cancer research centers.⁷⁹ Moreover, its director, Dr. Lee Hartwell, won the 2001 Nobel Prize in physiology or medicine for his pioneering work in yeast genetics, as did longtime Fred Hutchinson administrator and researcher E. Donnell Thomas in 1990.

The Center also has a number of significant international research activities, including the following:

- Transplant education, in which the Center teams with health-care and academic institutions throughout the world to teach the latest bone-marrow and stem-cell transplant and other treatment techniques to cancer specialists.
- The HIV Vaccine Trials, a comprehensive, clinically based, worldwide network to develop and test vaccines for HIV, for which the Center directs the core operations center, houses one of the 10 clinical vaccine units, and hosts the data-management center.

Other Research Institutions. The new Institute for Systems Biology exemplifies computer scientists working hand in hand with biologists to study the complex interaction of many levels of biological information. The Institute has grown rapidly in just two years to a staff of more than 170 and has already spun off two companies, Cytopeia and MacroGenics.⁸⁰ Other leading research enterprises include the Seattle Biomedical Research Institute, the Pacific Northwest Research Institute, the Benaroya Research Institute, and Battelle Seattle Research Center.

C. Human Capital

Demographics. According to the 2000 Census, the Seattle region (King, Pierce, and Snohomish counties) had an estimated population of just over 3 million, representing growth of about 15 percent over the 1990 population.⁸¹ According to the 1999 population estimates, only 22 percent of the Seattle-area growth since 1990 was attributable to net international migration, compared with 31 percent for the nation and 68 percent for California.⁸² Not surprisingly then, immigration has generally not been socially disruptive or politically contentious in the Seattle area.

By race, the population of the region is 78.3 percent white, 9.0 percent Asian and Pacific Islander, 5.0 percent black, and 1.1 percent American Indian and Alaska Native. Individuals listing themselves as belonging to some other race or two or more races account for the remaining 6.5 percent. The proportion of Hispanic or Latino is 5.3 percent. The city of Seattle has higher concentrations of both Asian and Pacific Islanders (13.6 percent) and blacks (8.4 percent) than does the broader region.⁸³ Seattle's ethnic communities are visible and influential beyond their numbers. They have produced many highly successful public officials, among them Chinese-American Governor Gary Locke, and African-American King County Executive Ron Sims and former Seattle Mayor Norm Rice. All three were elected and re-elected with substantial majorities.

Education. Washington ranks first among states in percentage of the population that has completed high school and fifth among states in percentage of the workforce with a bachelor's degree in science or engineering.⁸⁴

In 1998, the Washington State Office of Financial Management surveyed educational attain-

ment in the state, by region. As Table 13 indicates, King County (which includes both Seattle and the Eastside cities of Bellevue, Redmond, Kirkland, and Issaquah) has relatively high concentrations of individuals with bachelor's and advanced degrees.

Yet a recent survey of state employers finds that the current economic downturn notwithstanding, 60 percent of firms attempting to hire workers during 2001 had difficulty finding qualified job applicants.⁸⁵ As in other high-tech regions, finding adequate numbers of qualified employees is a major challenge. In 1998, the WSA (formerly the Washington Software Alliance) found the lack of skilled workers a significant obstacle to the growth of their industry. Since then, the state has increased the number of high-tech graduates and certificates from community colleges by a third. And from 1997 to 2000, the state's public universities increased the number of bachelor's and master's degrees in computer science by more than 50 percent.⁸⁶ Although economic conditions rather than lack of educated employees proved to be the primary drag on growth, employment in the software industry has held up relatively well, declining by less than 3 percent in the 12 months following its June 2001 peak.⁸⁷ And despite an apparent national trend of declining college enrollments in computer science and engineering,⁸⁸ undergraduates enrolling in these majors at the University of Washington grew by 40 percent from the 1998-1999 to the 2001-2002 academic year.⁸⁹

“Relative to Silicon Valley, Seattle has a lower level of immigration overall, and its major émigré communities now play only a modest role in regional development.”

Immigrants and Foreign Students. Relative to Silicon Valley, Seattle has a lower level of immigration overall, and its major émigré communities now play only a modest role in regional development. Unlike Vancouver, British Columbia, where a significant influx of affluent Hong Kong Chinese occurred over the past decade, Chinese immigrants to Seattle have tended to come from more modest backgrounds. Similarly, the approximately 50,000 Russian immigrants to the region have yet to have a significant economic impact, but their role appears to be growing.

Table 13
Educational Attainment, 2000⁹²
(in Percentages)

Education	Washington	King County	Other Puget Metro*	United States**
Less than HS Diploma	12.8	8.5	12.6	15.9
HS Diploma or GED	26.5	21.0	28.1	33.1
Some College***	30.0	26.8	32.9	25.4
Bachelor's Degree	20.2	29.3	17.4	17.0
Advanced Degree	10.3	14.4	18.9	8.6

Source: Office of Financial Management, Washington State Population Survey, 2000 Data Tabulations, Q2P17, Highest Level of School Completed

* Snohomish, Pierce, Thurston, and Kitsap Counties.

**U.S. Department of Education, Digest of Education Statistics 2001, Chapter 1. Data for March 2000⁹³

*** Includes those with post-secondary vocational education or associate degrees, as well as some college without a degree.

“There is little to suggest that Seattle’s ‘foreign entrepreneur’ contingent is any smaller or weaker, on a per-capita basis, than the contingent in the Bay Area.”

Nonetheless, Seattle has benefited from an influx of international talent in science and technology. Such individuals typically move to the United States for one of two reasons: to attend a university or to work for an existing company. Then, they often stay and may eventually start their own companies. Just as the San Francisco Bay Area has a strong base of universities—the University of California, Berkeley, and Stanford University most prominently—and of existing companies that attract such international talent, many foreign nationals come to Seattle to attend the University of Washington or to work for Seattle technology firms, especially Microsoft. At the University of Washington, for example, almost 2,500 students representing 104 nations and territories enrolled for the 2001 autumn quarter, the largest contingents coming from South Korea, China, Taiwan, Canada, Indonesia and India.⁹⁰

Once here, foreign nationals form strong networks and draw on them to start or staff new companies. For example, Seattle has an outpost of TiE (The IndUS Entrepreneurs), headed by Vijay Vashee, who recently left Microsoft after running TiE for many years while still there. Illustrating the power of such networks, Vashee serves on the board of Performant, which was founded by Ashutosh Tiwary, a computer science graduate student at the University of Washington, based on his thesis work.

There is little to suggest that Seattle’s “foreign entrepreneur” contingent is any smaller or weaker, on a per-capita basis, than the contingent in the Bay Area. However, neither here nor in the Bay Area is this activity the direct result of specific public policy. Rather, it is the result of more general policies that encourage the creation and growth of technology companies, and policies that encourage the success of research universities. This also helps explain why Seattle has proven to have above-average entrepreneurial flair. The Brandow Company’s entrepreneurial activity index ranks Washington fifth among states, giving it a rating of 1.42 (the U.S. average is 1) for the January 1999-January 2001 period.⁹¹

D. Quality of Life

Difficult to quantify and to relate specifically to globalization, the region’s physical environment and quality of life nonetheless seem central to its sense of identity and to its ability to vie for globally competitive businesses and entrepreneurs. According to the 2000 report, *Competing in the Age of Talent*, Seattle consistently scores highly “across every quality-of-place measure—natural amenities, lifestyle amenities, and overall environmental quality. Seattle has come to exemplify the new lifestyle package of technology, the Internet, the environment and amenities.” The report goes on to say that the city “shows how proximity and place can function as a mechanism for talent attraction in the new economy.”¹⁰⁴

Seattle is a region of unusual natural beauty and affords recreational opportunities that exploit well the area’s proximity to water and mountains—Puget Sound and the Olympics to the west, the Cascades to the east, and a variety of nearby large lakes. Hilly topography creates many vistas that keep these features frequently in view, an advantage captured by the City of Seattle’s comprehensive plan for parks and boulevards. Such water sports as sailing, canoeing, and kayaking are always close at hand; Alpine and Nordic skiing, snowshoeing, mountain climbing, and hiking are as close as an hour away. The mild climate enables locals to be outdoors most of the year, despite the frequent rain.

Seattle Institutions with International Missions

Seattle is home to a variety of institutions with international missions, including non-governmental organizations, foundations, governmental organizations with special missions, and foreign trade zones.

Non-Governmental Organizations. Seattle hosts the *National Center* for APEC, a private, nonprofit organization. It was founded following the 1993 APEC meetings in Seattle to serve as a liaison between the U.S. private sector and U.S. government representatives to the APEC process, to encourage U.S. involvement in APEC, and to expand public understanding of the benefits of APEC to the U.S. economy and society.⁹⁴ *The Washington Council on International Trade* is a private, nonprofit, nonpartisan association of businesses, public-sector, and state government representatives, consular groups, and individuals. It serves as a clearinghouse for information on international trade in Washington State.⁹⁵ *The Trade Development Alliance of Greater Seattle* is a collaboration of the Port of Seattle, King County, Snohomish County, the City of Seattle, the City of Everett, the Greater Seattle Chamber of Commerce, and union leadership. It promotes the trade interests of the region in domestic and international markets, enhancing, in particular, the identity of Greater Seattle in targeted world markets through marketing publications, trade missions and other activities.⁹⁶

Based in Federal Way, *World Vision* is the largest nonprofit Christian humanitarian aid organization in the world with more than 4,500 projects in 92 countries. Founded in 1950 to help orphans of the Korean War, World Vision assists communities through water programs, health care education, and agricultural and economic development.⁹⁷

Foundations. By far the most significant foundation with an international orientation is the *Bill and Melinda Gates Foundation*.⁹⁸ With current assets of approximately \$24 billion, the Gates Foundation is the largest foundation in the United States by a significant margin.⁹⁹ One of its three main programs is Global Health, which focuses on women and children, especially in the developing world. Since inception, Gates Foundation's Global Health programs have granted over \$2.5 billion for infectious disease and vaccines, reproductive and child health, HIV/AIDS, and tuberculosis.¹⁰⁰ In May 2002, former National Cancer Institute Director Richard D. Klausner was named executive director of Global Health Programs.¹⁰¹

Government Organizations with Special Missions. *The Washington State Office of Trade and Economic Development's International Trade Division* provides a variety of services to help small- and medium-size businesses compete in the global economy. The International Trade Division maintains offices in Tokyo, Shanghai, Seoul, Taipei, and Paris.¹⁰²

Foreign Trade Zones. The ports of Seattle, Tacoma, and Everett, as well as the Puyallup Tribe in Tacoma, operate foreign trade zones, in which foreign and domestic merchandise is considered to be in international commerce, thereby postponing duty payments until imported goods enter the U.S. market or allowing foreign components to be assembled with U.S. components and re-exported without having to pay and then draw back duty.¹⁰³

“The region’s physical environment and quality of life seem central to its ability to vie for globally competitive businesses and entrepreneurs.”

Many of the region’s other key quality-of-life attributes have deep roots. Seattle itself has long been a city of residential neighborhoods built around single-family homes and nearby retail districts. The city has a diverse array of public parks, many of them large, although the ambitious plan of linked parks and boulevards developed in the early 1900s was left uncompleted.¹⁰⁵ Tacoma is similar in many respects.

More recently, this neighborhood orientation has been complemented by substantial development of new apartments and condominiums in and around the central Seattle business district. Tacoma is also undertaking significant downtown redevelopment around its waterfront and the University of Washington Tacoma campus.

International Districts and Neighborhoods. The primary international district in Seattle is known as, not surprisingly, the International District, the cultural hub of the city’s Asian-American community. Located just south of downtown Seattle, the neighborhood dates from the 1910s and includes Chinese, Japanese, Filipino, and Vietnamese residents.¹⁰⁶ The Ballard neighborhood, in northwest Seattle, has a rich but attenuating Scandinavian heritage.

Housing. Not all of the quality-of-life news is good. Housing prices in the region are high, far too high if Seattle is to remain as competitive as it has been in the global economy. Despite the current economic downturn, as of July 2002 median home prices in King County had risen to \$257,000, compared with \$249,950 a year earlier, although down from the all-time high of \$265,000 in June 2002.¹⁰⁷ These figures represent more than a decade of steeply rising prices that have abated little since the average Seattle home price reached \$100,000 in the late 1980s.¹⁰⁸ Rents have increased correspondingly. The average rent in King County for a two-bedroom apartment reached \$925 per month in April 2002, although vacancy rates are up in the current economic climate and rent reduction and concessions are expected to be the norm at least until 2004.¹⁰⁹

While particularly intense in Seattle, housing price pressures are a regional phenomenon. Thus, especially in Seattle and King County, purchasing a home has become extremely difficult for people of average income, especially first-time buyers. More than 80 percent of the homes for sale in King County are beyond the reach of the median household, and more than 40 percent of King County homes are selling at prices beyond the reach of families earning *twice* the median, an income of \$120,000 per year.¹¹⁰

Appearing within the region because of the demographics of the new globalization, housing prices can be a source of friction. The city of Seattle has become a magnet for people talented in the professions, the sciences, and the creative side of high-tech sectors that sell to a global market. More likely to be single or childless, these individuals also tend to be younger and wealthier than the rest of the regional population.¹¹¹ These demographics, combined with the city’s economic growth, tend to drive up housing prices. The result is a bifurcation of Seattle income groups into the relatively rich and the relatively poor, driving most of the middle class to the suburbs, especially first-time home buyers or those starting a family.

These trends, plus the emergence of the Eastside suburbs as cities in their own right, has tended to complicate cooperation on critical regional issues, such as transportation, just when coopera-

tive approaches are urgently needed to address problems of congestion that are of great interest to the city's exporters. Such divisiveness seems likely to act as a drag on the ability of the region to cooperate on other critical issues, and thus on the region's ability to compete with other ambitious international cities.

VI. THE BOEING CHALLENGE ...

Perhaps the divisiveness just mentioned can be overcome by the shared realization that the Seattle region's emergence as a global player is more tenuous than previously thought. This realization was doubtless driven home for many by Boeing's shattering and wholly unexpected announcement in March 2001 that it was moving its headquarters out of Seattle. Founded nearly a century ago, and ever more prominent with the production surge of World War II and the launch of the commercial jetliner in the 1950s, Boeing appeared inseparable from Seattle's identity. And if any institution seemed to symbolize Seattle's status as a global city, it was Boeing and the Seattle-built airplanes flown by airlines around the world. Then, in the span of a press conference (held in Washington, D.C., not Seattle), Boeing's headquarters was gone.

To attribute the Boeing headquarters departure to globalization—or to any single cause—would be an oversimplification. But to say the move has nothing to do with globalization would be even more misleading. Increasingly formidable competition from Boeing's global rival Airbus during the past decade began to erode the profits and limit the growth potential of Boeing's core commercial aircraft business, to the chagrin of its shareholders. So Boeing began to acquire other companies with complementary capabilities and product lines—most notably, McDonnell Douglas and the satellite business of Hughes Electronics. In the process, Boeing transformed itself into a much larger, more geographically extended, and more diversified concern than the somewhat provincial business it had been for most of its history. Its workforce, its management, and its board of directors were no longer rooted primarily in Seattle. The extent of this transformation seems not to have been fully recognized by the general public, local media, or civic leaders, perhaps not even by Boeing's Seattle employees. Many would doubtless have been startled to learn that Boeing had become the largest private employer not just in Seattle¹¹² but also in greater Los Angeles.¹¹³

Isolating the real reasons for the Boeing headquarters move is ultimately a fruitless exercise. A combination of motivations—part strategic, part economic, part political, part organizational—appears to have been at work. However, there can be no argument that the stated reason—to physically separate the locus of corporate decision-making from the operations of any single business unit—follows precedents set by other leading global corporations with multiple product lines and geographically disparate operations, including General Electric and Asea Brown Boveri. And Boeing's move can be viewed as only a very dramatic example of how companies are coming to approach almost all location decisions in the new globalization era. As an executive of a large

"The Boeing headquarters move can be viewed as a very dramatic example of how companies are coming to approach almost all location decisions in the new globalization era."

technology company with operations near Seattle explained to this author: “You have to understand. We now approach decisions about where to locate company activities as if we were looking down from the moon and asking ourselves, ‘Where is the best place in the world to put this?’” The costs and effects of dispersed operations are taken into account, but it is not strongly presumed that the best way is to keep everything together.

This new mobility, what some might call rootlessness, constitutes a new vulnerability for regions. Whereas Boeing and others were quick to point out that Seattle was losing only about 500 jobs out of a local Boeing workforce that then approached 90,000, in this context, a job is not just a job. In Peter Drucker’s formulation, “Increasingly, . . . top management will, in fact, be the company. Everything else can be outsourced.”¹¹⁴ As the corporate headquarters becomes the company, its presence carries huge psychic freight for the host community’s self-image, self-esteem, and municipal “brand.” And the presence or absence of corporate headquarters can have practical consequences for corporate involvement in local philanthropy, community-development efforts, and regional leadership. For decades, Boeing has been a Seattle mainstay in all of these areas. Former Chief Administrative Officer John Warner said that the headquarters move will have “zero” impact on Boeing’s community involvement. As Warner put it: “I understand a number of companies tend to tie their support to where their headquarters are. That’s not the way we do it.”¹¹⁵ And indeed, there is no perceptible impact so far. Time will tell, but there is no denying a community sense of unease.

Having progressed through the loss stages of shock, grief, and anger, Seattle now faces the task of getting on with life. In its relations with Boeing, that means taking steps to ensure that the company continues to value Seattle as the logical home for Boeing’s still-very-substantial commercial airplane business, including not only manufacturing but also the new product-development functions of research, development, and engineering that will be essential to producing next-generation aircraft. There are powerful reasons for a company such as Boeing to concentrate a product line such as commercial aircraft in a single “home base,” where skilled employees, specialized suppliers, specialized information, and complementarities tend to cluster.¹¹⁶ In the era of the “moon-based” (or even Chicago-based) corporate decision maker, however, regions such as Seattle must continuously upgrade the assets that underpin their core clusters, be they commercial aircraft, software engineering, wireless telecommunications, test instruments, or biotechnology.

VII. ... AND BEYOND

As the Boeing challenge suggests, Seattle must constantly re-recruit the companies already in the region. Otherwise, it risks other firms' following Boeing in moving corporate headquarters or other key activities elsewhere. This risk is compounded by the ease with which companies can move in a globalized era, as well as by the consolidation in many industries.

A hopeful sign that business, government, and educational leaders in Seattle and Washington state are getting the message is the January 2002 report of the Washington Competitiveness Council, which was appointed the previous year by Governor Gary Locke¹¹⁷ to "examine Washington's ability to compete in the global economy of the 21st century." The Council met five times and made recommendations in four areas: taxes and fees, regulatory and permitting, physical infrastructure, and human capital and innovation. Those recommendations produced legislative action in all four areas, although the Council's top priority—a comprehensive transportation package to address pervasive gridlock—was referred to the voters for approval and rejected by them in November 2002.¹¹⁸

"Sustaining Seattle's momentum will require a new generation of regional leadership willing to address competitive issues for years to come."

Even with the Council's effort, it is clear that sustaining Seattle's momentum will require a new generation of regional leadership willing to address competitive issues for years to come. Leaders who are able to bridge geographic and demographic differences and make common cause across the industries of both the new and older eras of globalization are essential if the region is to fulfill its current promise as a truly global city of the 21st century.

Such leadership must look beyond the narrow boundaries of the Seattle region. The challenges of spanning differences within the Seattle region pale when compared with the differences between Seattle and the rest of the state, particularly rural and eastern Washington. At the core of these difference is the extreme divergence in economic prosperity. According to the Northwest Income Indicators Project at Washington State University, per-capita income in "metropolitan western Washington" (essentially, the Seattle region) was 118 percent of the national average in 2000. In sharp contrast, the comparable figure for metropolitan eastern Washington was 82.2 percent of the national average; for non-metropolitan western Washington, 80.9 percent; and for non-metropolitan eastern Washington, 72 percent. In short, Seattleites are different from their fellow citizens elsewhere in the state: They make more money. And the gap has been growing since 1969.¹¹⁹

In large measure, this disparity reflects the differing patterns of employment in the Seattle region relative to the rest of the state. The Seattle area economy is built on aerospace, software, electronics, biotechnology, and the business and financial services that support them, as well as on the transportation and logistics associated with the major port activities. In contrast, much of the rest of the state's economy depends on agriculture, food processing, timber and forest products, and aluminum. In general, the Seattle-based industrial clusters are knowledge-intensive, high-paying, and (until the current recession) fast-growing; the industries on which the rest of the state has traditionally employed a less-educated workforce are experiencing, at best, slow growth, and they pay substantially less.¹²⁰

“To secure state investment and other support for continued economic development, Seattle must make a convincing case to eastern and rural Washington that such measures are in their interest.”

These differences can also be highlighted in terms of Michael Porter’s three-part typology of regional industrial clusters.¹²¹ *Traded clusters* consist of industries that compete across locations, either elsewhere in the United States or internationally. *Resource clusters* are tied to the presence of local natural resources. *Local clusters* serve only local customers and compete only within their region. In this analysis, traded clusters have a disproportionate effect on regional prosperity and economic growth, largely because their much larger markets enable them to achieve high productivity, which in turn supports high wages. Resource clusters can also support high wages, but can typically play a relatively small role in advanced economies. Because local clusters serve only local markets, the conditions are less favorable for high productivity growth. In the Seattle region, traded clusters absorb over 36 percent of employment; in the rest of the state, they account for only 26 percent. In contrast, only 0.5 percent of Seattle employment is in resource clusters; the comparable figure for the rest of the state is nearly 3 percent.¹²² Seattle’s high-growth, high-wage economy is thus what one would expect from its heavy concentration of traded clusters.

Seattle’s relative economic success courts political isolation. With just over 3 million people, the region accounts for only a little more than half of Washington’s total population of 5.9 million.¹²³ Thus, in the state legislature, the region enjoys a significant, but not commanding, voice. Of Washington’s 49 legislative districts, only 24 clearly fall within the Seattle region as defined in this report. (Another three districts include small parts of King, Pierce, or Snohomish County, but lie predominantly outside those county’s boundaries.) The region’s “delegation” thus comprises 24 of 49 senators and 48 of 98 representatives.

Therefore, to secure state investment and other support for continued economic development, Seattle must make a convincing case to the citizens and legislators of eastern and rural Washington that such measures are in their interest. That case is becoming increasingly difficult to make, because citizens of eastern and rural Washington seem to see little stake for them in Seattle’s future. The legislature’s inability to agree on a transportation package before 2002 to address the Seattle area’s enormous traffic-congestion problems and the subsequent defeat of the referendum on this issue in November 2002 is only the most dramatic example.

In fact, Seattle and the rest of the state do indeed have a strong common interest in building their mutual prosperity:

- First, Seattle’s continued development as a global city provides the trade and transport infrastructure to enable the forest products, agricultural, and other trade-dependent sectors centered elsewhere in the state to efficiently export their goods.
- Second, Seattle’s prosperity generates tax revenues that benefit all state residents who depend on state services.
- Third, all areas of Washington share a common interest in an attractive statewide business climate. A balanced and competitive tax environment; a predictable and accountable regulatory process; adequate and reliable transportation, energy, and telecommunications infrastructure; and first-rate public education are the fundamental building blocks of competitiveness for the entire state.¹²⁴

- Fourth, cultivation of strong and competitive regional clusters outside Seattle depends in part on harnessing public resources, which taxes collected in Seattle help provide (particularly in higher education) and on private resources currently centered in Seattle, such as venture capital, trade associations, and sophisticated business services.
- Fifth, the “state’s economy—and its ability to weather downturns—is strengthened because of the diversity provided by the mix of rural and urban industries and businesses.”¹²⁵

VIII. CONCLUSION: STEPS TO STAY AHEAD

The new globalization era poses some stark challenges, but also considerable opportunities. The following five imperatives head the list of action to take:

1. The Seattle region must develop a compelling vision for the future and a strategy to realize it. Former Seattle Mayor Paul Schell is right when he argues that Seattle is poised to join a second tier of global cities such as Sydney, Milan, and Barcelona—cities built on ideas, energy, and global linkages, tempered by a strong commitment to livability.¹²⁶ But such a future will not happen on its own accord. As recounted in this report, Seattle has been ambivalent about its place in the global economy: “Do we want to be a nice place like Oregon or a world-class city?”¹²⁷ Globalization renders such ambivalence a luxury that the region can no longer afford. If Seattle fails to define its future and a workable path to get there, the region risks allowing its future to be created by others, and by circumstances. Worse still, rather than finding that it can’t have it all—both quality of life and a dynamic economy—it is likely to find that it has neither, as traffic congestion and urban sprawl strangle economic growth. It does not have to be this way.

2. The Seattle region must do a better job of cultivating a new generation of globally minded leaders. Along with ambivalence about its future, the region is well known for its “Seattle Way” of well-intentioned dialogue and cumbersome decision processes whose goal is consensus but whose result is, all too often, inaction. But as political observer Ted Van Dyk notes, the Seattle Way did not always work in that fashion: “It always had at its core a group of public-spirited leaders who thought through what was needed and then used public dialogue as a means of getting there.”¹²⁸ Van Dyk cites Eddie Carlson and the Seattle World’s Fair as an example of “getting there,” but there are many examples, from Jim Ellis and the cleanup of Lake Washington through a regional wastewater management system to Senators Warren Magnuson and Henry Jackson, and the health sciences complex at the University of Washington. Seattle needs to develop a new generation of political and business leaders willing to propose significant actions to secure Seattle’s future, then to expend political capital and personal prestige on their behalf.

Seattle has excellent foundations on which to build this new generation, such as the 20-year-old Leadership Tomorrow program, which each year selects 64 people from the public, private, and nonprofit sectors to participate in a nine-month program to develop leadership skills. Now is the time to boost these efforts—for example, by establishing a Leadership Tomorrow graduate

program for particularly promising individuals poised to assume significant public or private responsibilities and by including rising stars on the boards of heretofore-CEO-level organizations such as the Washington Roundtable.

3. The Seattle region must better exploit its growing strengths. As recounted elsewhere in this report, Seattle enjoys an enviable mix of assets with which to position the region as a globally competitive 21st-century city, including excellent research capabilities and company presence in the knowledge-intensive fields of the life sciences, information technology, computer science and telecommunications; a vibrant creative and artistic community in music, dance, theater, and the visual arts; and a strong tradition of collaboration and cross-fertilization. This is a potent brew, especially as the new industries of the 21st century move into bio-information, nanotechnology, wireless software applications, and computer graphics and animation.

To fully capitalize on these strengths, Seattle needs to invest in strategically important research programs; to create new institutional settings to further enhance cross-fertilization and collaboration; and to preserve the openness and quality of life that attracts creative people. The efforts of other regions suggest the possibilities:

- In the San Francisco Bay Area, the Institute for Quantitative Biomedical Research is a cooperative effort among three campuses of the University of California and private industry to improve human health and create dynamic new technologies.
- Pittsburgh has established digital and life sciences “greenhouses” to attract new companies, to help existing companies grow, and to foster start-ups by increasing access to technology, talent, markets, and partners.
- In Ann Arbor, the Michigan Center for Biological Information is a nonprofit entity established to promote life-science research, product development, and education by making advanced information technology and computational resources readily available to investigators in academia and industry.

Seattle is ripe for such catalyzing initiatives. But in the intensely competitive environment of the new globalization, such initiatives will require conscious choice and strategic investment.

4. Seattle region leaders must build alliances to deal with local issues. No public-private forum exists for addressing regionwide issues, such as transportation, taxation, and education and training. Such an institution could play a highly constructive role in forging alliances to address these and other issues. After all, Seattle the city is but one component of Seattle the region. And it is Seattle the region that will succeed or fail in the new global economy, because no one city or area has the necessary critical mass.

Yet with all too few exceptions, the political discourse among political jurisdictions involves more bickering than cooperation, much less strategically directed joint action. Once again, this “balkanization” is a luxury that the region cannot afford. And, once again, creation of regional alliances requires political leadership here, through mayors, council members, and state legislators who are willing to make the case for sacrificing short-term local interests for long-term regional gain. The region’s business leaders must be included in any such alliances, because their problems and opportunities are truly regional: Boeing’s manufacturing and administrative opera-

tions are spread all over the region, from Everett to Seattle to Renton and beyond. Microsoft is headquartered in Redmond, but its employees commute from all over the region. And with two-career families increasingly the norm, at least one spouse in any family is likely to have a substantial commute.

A hopeful sign is the strong recognition at the most recent Greater Seattle Chamber of Commerce leadership conference that communities and constituencies throughout Puget Sound must operate more consistently with a unified metropolitan regional perspective.¹²⁹

5. The Seattle region must reach out to the other Washington. As demonstrated by the overwhelmingly negative vote on the transportation referendum outside the Seattle area, Seattle cannot afford to isolate itself from the rest of the state. And as noted above, Seattle and the rest of the state share a common interest in mutual prosperity. A prosperous, globalized Seattle need not be seen as a pampered ecotopia to be envied and resented. It can be more productively viewed as a strategic resource and partner to be harnessed as a driver of the entire state's prosperity. Creating a shared vision along these lines will be challenging, and the initiative must come from Seattle. In securing a bright long-term future, few leadership tasks are more important.

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