

# enterpriseSeattle Interactive Media Industry Assessment

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Prepared by



Commissioned by



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*partnerships for regional prosperity*



*Community Attributes tells data-rich stories about communities  
that are important to decision-makers.*

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## EXECUTIVE SUMMARY

In 2007, enterpriseSeattle commissioned an Interactive Media Cluster Study. The purpose of the study was to provide a knowledge foundation which could be used to leverage and grow businesses and economic activity within the Interactive Media Cluster in the Puget Sound region and throughout Washington State.

In 2012, enterpriseSeattle and the Washington Interactive Network desired an update to the study to assess the Cluster's growth, and new or remaining challenges and opportunities to continue to support this important regional industry. This study incorporates quantitative and qualitative analysis of Cluster strengths and discusses future direction of the Industry.

The Interactive Media Cluster relies on a robust support system to fuel its growth, including devices, content and communication systems.

- Devices include mobile, consoles, laptops, desktops and television platforms.
- Content consists of both entertainment and serious applications.
- Communications networks, such as social media outlets, are used to share and promote games.

Cluster support industries include a distribution network to deliver games to the consumer, professional services such as banking, financing, real estate and legal

advising, information and communications technology infrastructure (ICT), and perhaps the most critical, a talented workforce and the research and educational institutions that support the Cluster.

The IM Cluster in the Seattle area has significant economic impacts for the region and the State. With close to 80,000 occupations related to Interactive Media production in 2011 in the Seattle area, Seattle is well-ranked nationally for Interactive Media employment. Overall, regional game companies' revenues experienced substantial growth from 2006 to 2011 with revenues at \$9.7 billion, resulting in a 25% increase from 2006 to 2011. Seattle's concentration of Interactive Media jobs, represented by a location quotient of 2.4, demonstrates the area's specialization in this field compared to the nation (1.0).

Multiplier effects are also significant. The total revenue impact is an estimated \$17 billion and statewide labor income is \$6.6 billion. As many as 97,000 jobs in Washington can be attributed (directly or indirectly) to the Interactive Media Cluster.

The Industry looks forward to growth and innovation in interactive television, new serious applications and the combination of social, interactive and linear games..

## INTRODUCTION

### Background and Purpose

In 2007, enterpriseSeattle commissioned Community Attributes to perform a cluster study of the Interactive Media Industry. The study pointed out the importance of the Cluster to the regional and state economy. The study identified the rapidly growing number of jobs in the Cluster, high wages and exciting career opportunities that attract a strong talent base. The report emphasized future growth, emergence of new entertainment markets and continued strength of Seattle as a hub for the Industry. The most significant challenge then was attracting the talent to support growth.

In 2012, enterpriseSeattle desired an updated assessment of the Interactive Media Cluster. Understanding the clustering of economic activity within the regional economy highlights opportunities to focus economic development efforts in support of key industries. This study gauges economic activity connected to Interactive Media production based in Seattle, including the greater Seattle Metropolitan Area and the impacts for all of Washington State. The study includes a quantitative and qualitative review of the Interactive Media Cluster that informs and promotes this important, growing industry.

### Methods

This report relies on secondary data analysis and primary data collection. Secondary data analysis draws from data compiled by public agencies including the Washington State Employment Security Department and Department of Revenue, the U.S. Bureau of Economic Analysis, the Puget Sound Regional Council, and additional publicly available data. Data reported and analyzed were the most recent available during the third quarter of 2011. Data from 2010 were used whenever possible, in some data applications, 2009 was the most recent year available.

For this study, companies counted in the Interactive Media Industry self-identified as Interactive Media firms through participation in the Washington Interactive Network and other targeted events. Revenue and employment data were collected using participating firms' Unique Business Identifiers (UBIs) to calculate overall economic impacts.

Primary data were collected through a series of telephone interviews from February to April 2012 with Interactive Media leaders and experts.

## Organization of Report

The Interactive Media Industry Assessment includes the following sections, which follow this introductory section:

- **Cluster Overview.** An overview of the Interactive Media Industry in King County.
- **Measures and Impacts.** Data summaries of firms, revenues, employment and other metrics that demonstrate the size and relevance of the Industry in Washington State.
- **Industry Workforce Assessment.** Analysis of the occupations that define the Industry's workforce, along with wages and educational attainment of dominant employee classes of the Interactive Media workforce.
- **Industry Perspectives.** Findings from Interactive Media experts.
- **Findings and Recommendations.** A summary of the key finding that shape an understanding of opportunities in the Cluster and recommendations to continue to foster its growth.

## INTERACTIVE MEDIA CLUSTER OVERVIEW

### Interactive Media Definition

The definition of Interactive Media is evolving. Previously, video games, networked software applications, digital music distribution and other Internet technologies as were labeled Interactive Media. Today it seems that any company producing consumer-driven content or providing services through a screen is considered part of Interactive Media.

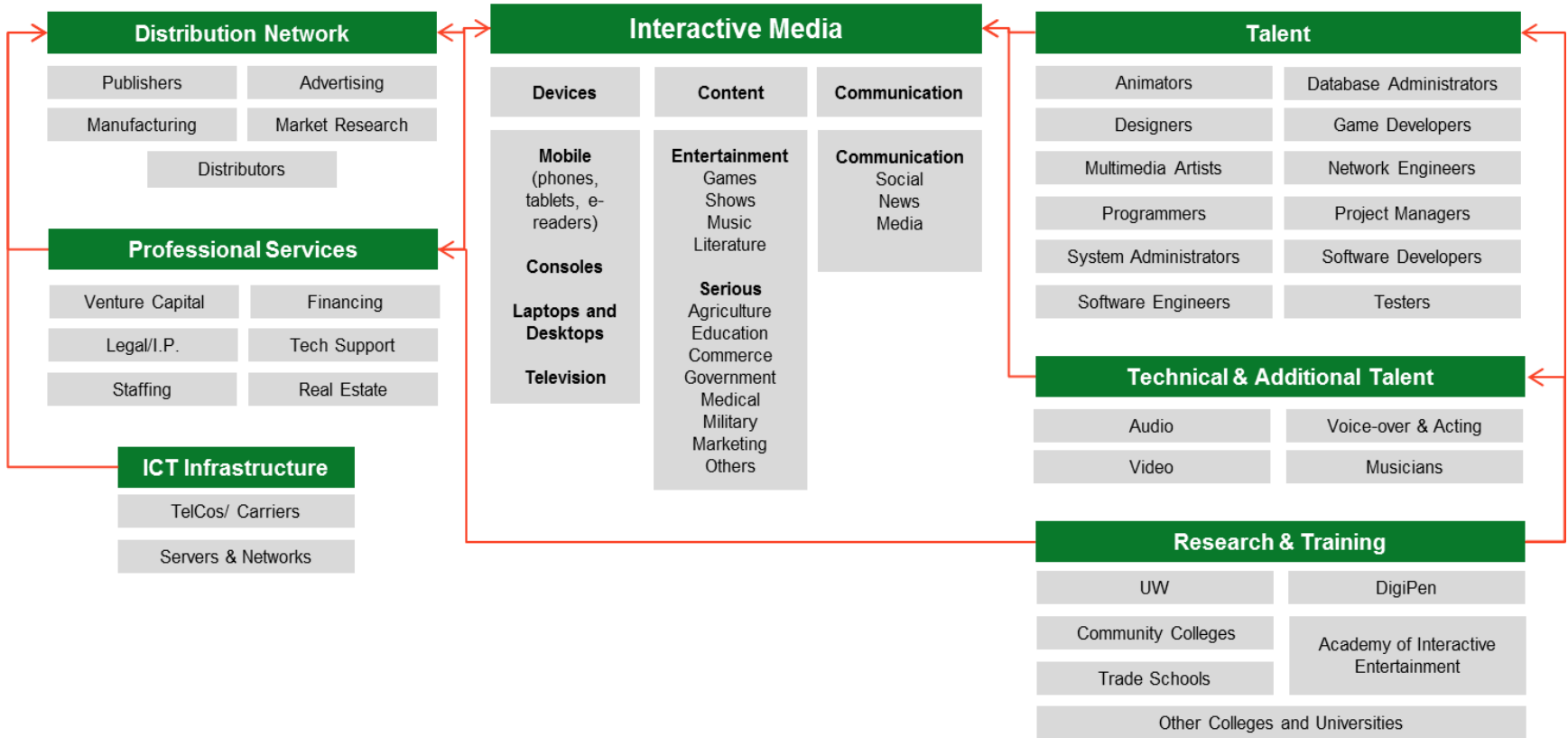
The Industry requires both mobile and static location devices, content development and communications networks strengthened by a robust system of distribution outlets, professional services, ICT infrastructure and a qualified pool of talent prepared for the labor pool by research and training programs.

### Primary Game Industry Segments

In the 2007 report, four distinct but overlapping segments were defined who continue to comprise the Industry: Core, Casual and Serious games along with MMORPG/Social Networks, described in the Cluster Map in **Exhibit 1**. The presence of three Interactive Media anchors, Microsoft, RealNetworks and Nintendo also heavily influences the Interactive Media Cluster. These anchors, while inextricably linked to the regional economy and Interactive Media Cluster, also act somewhat independently of regional economic linkages.

- **Core.** Games developed for personal computers, television game consoles (currently led by Microsoft XBox, Sony PlayStations and Nintendo's lineage of consoles) and handheld video games hardware. These games are relatively involved and require some learning to participate in all features.
- **Casual.** Distinguished primarily by the simplicity to learn, play, quit and resume. Card games, puzzles and relatively simple animated games typify casual games. Casual games are often free or inexpensive. Mobile games primarily include casual games, with mobile platforms rapidly increasing market penetration.
- **Serious.** This term has evolved to include all Interactive Media designed for formal learning or training, such as flight simulators. Fields where Interactive Media contribute to training include aerospace, military and medical applications.
- **MMOG/Social Networks.** New to the definition of Interactive Media, this category comprises social networking services like Facebook and interactive virtual environments like Second Life and World of Warcraft, commonly known as Massively Multiplayer Online Games (MMOG). In both cases, the user is part of an interactive online community.

### Exhibit 1. Interactive Media Cluster Map





## Industry History

Much has changed in this dynamic industry since the first cluster study was performed in 2007. The timeline on the sidebar highlights major events since the early 1980s to 2011. Momentum continues in the Industry fueled by the following major events.

**Core Games Success.** Core games are developed for personal computers, game consoles (currently led by Microsoft Xbox, Sony PlayStations and Nintendo's lineage of consoles) and handheld video games hardware. These games are relatively involved and require some learning to participate in all features. Valve and Steam boast 40 million account holders, 16 million registered games and a 100% increase in 2011 of unit sales year-over-year. Nintendo of America, Microsoft Xbox Kinect have all set sales records upon release.

**Mobile and Tablet Success.** Mass consumer adoption of smartphones and tablets significantly increased game-able devices, resulting in major market penetration. The Pew Research Center's Internet & American Life Project reports the following:

- 90% of Americans own a cell phone, computer, game console, e-book reader or tablet computer
- 65% of Internet users pay for content
- 55% of gamers play games on their phones or handheld devices

1982 - Microsoft Flight Simulator

1985 - Nintendo of America

1989 - Gameboy Released

1994 - Microsoft DirectX Formed

1995 - RealNetworks introduces RealAudio

1995 - Amazon.com begins online sales

1998 - DigiPen locates in Redmond

2001 - Microsoft launches Xbox

2001 - PopCap Games releases Bejeweled

2001 - Halo: Combat Evolved Released

2001 - University of Washington creates the Center for Digital Arts and Experimental Media (DXARTS)

2002 - Big Fish Games Founded

2002 - Valve Software invents Steam

2004 - Valve Software releases Counter-Strike

2004 - Google locates offices in Kirkland

2004 - DXARTS begins offering PhDs in New Media Arts, the only program in the United States to do so

- 35% of American adults own a smartphone
- 29% of Americans own either a tablet or an e-reader

**Casual Games Success.** Casual games are distinguished primarily by the simplicity to learn, play, quit and resume. Card games, puzzles and relatively simple animated games typify this category. Casual games are often free or relatively inexpensive. Mobile games primarily include casual games, with mobile platform ubiquity rapidly increasing market penetration. Key stars in the casual game segment are Big Fish, with more than 1 billion downloads in ten years and PopCap, acquired in 2011 by ElectronicArts for over \$1 billion.

**New Outlets and a Growing Community.** The Penny Arcade Expo in Seattle hosted 70,000 attendees in 2011 compared to Los Angeles's E3 attendance of 45,000. Casual Connect, held in Seattle in February 2012, welcomed 3,500 industry experts with a strong international showing.

**Microsoft Entertainment Division Success.** Microsoft revenue growth in the Entertainment Division is healthy at 55% from 2010 to 2011. The Entertainment Division is the largest growth division at Microsoft, earning \$3.7 billion in the second quarter of

2006 - Nintendo launches Wii

2007 - Amazon Kindle introduced

2007 - Google expands, adds office location in Fremont neighborhood of Seattle

2010 - UW's FoldIt crowd-sources complex scientific questions as a game

2010 - Halo: Reach sets US release records, 3 million copies sold in single day

2010 - Facebook expands to Seattle, First office outside CA headquarters

2010 - Big Fish Games reached 1 billion game downloads

2010 - Microsoft Kinect sells 8 million units in 60 days

2011 - Record attendance at Penny Arcade Expo

2011 - Amazon introduces Kindle Fire

2011 - ElectronicArts acquires PopCap Games

2011 - Zynga expands to Seattle

2011 - Forbes ranks Seattle #1 out of 51 metropolitan areas for high-tech job growth

2012 - Merger between AT&T and T-Mobile blocked by the Department of Justice, Federal Communications Commission and antitrust groups

2011, up from \$2.4 billion in 2010. Revenue more than doubled from 2009 to 2010 from \$370 million in the second quarter of 2009 to \$680 million in the second quarter of 2010.

During the 2010 holiday season, 6.3 million Xbox 360s were sold and membership to Xbox Live online service added 30% more customers.

Launched in November of 2010, Microsoft's Kinect sold 8 million units in the 60 day period after its release. Xbox holds a historic position as the fastest-selling consumer electronics device in history, in terms of units.

Microsoft has also had strong success with games. The Halo Series, developed by Bellevue-based Bungie Studios, has set multiple records for release performance, selling tens of millions of units equaling over \$1 billion in sales. Halo 2's sales generated \$125 million on its premiere day, making it the fastest selling United States media product in history up to that time. Halo 3 broke the previous record for the highest grossing opening day in entertainment history, making \$170 million in its first twenty-four hours.

## Comparative Advantages

Seattle continues its stronghold as an internationally recognized Interactive Media hub boasting the following characteristics.

**Software and Technology Origins.** Seattle is home to some of the world's most established Interactive Media firms whose expertise leads innovation in the field.

- Microsoft
- RealNetworks
- Nintendo
- T-Mobile
- Western Wireless
- Amazon.com

**Infrastructure.** Seattle is home to some of the lowest-cost energy in the nation. Eastern Washington takes advantage of this reliable and low-cost energy by building "server farms", providing digital space to firms located in or near Seattle. The City of Seattle has invested in expansive broadband and fiber optic networks. Seattle's transit system links residential and employment areas throughout the region.

**Creative Class Culture and Environment.** Seattle is a developed urban center with a high quality of life, attractive to talent at all experience levels thanks to a vibrant arts culture, quality education and cultural institutions and opportunities for outdoor recreation.

**Regional Talent Base.** Seattle has a large concentration of talented workers whose skills are highly transferable across sectors. The significance of the local talent base cannot be overemphasized. The University of Washington Computer Science program graduates 80 undergrads annually; DigiPen, a private Game Development educational institution, trains 300

people annually. The Seattle MSA alone has nearly 80,000 people employed in occupations suitable or transferrable to Interactive Media. The Seattle area share of Software Developers is 3.2 times that of the national economy.

## MEASURES AND IMPACTS

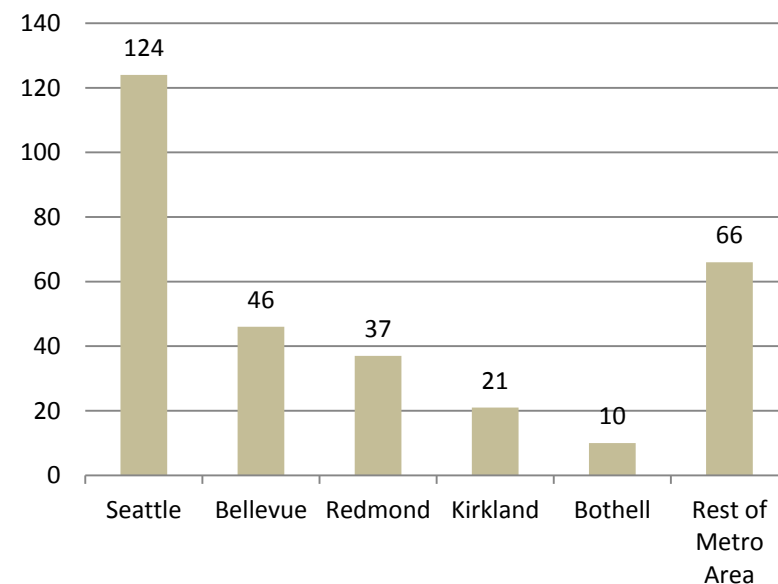
### Firms

In total there are more than 300 firms (estimated 304) in the Puget Sound Region.<sup>1</sup> The majority of firms are concentrated in the Puget Sound region, with heavy concentrations in downtown Seattle, Bellevue and Redmond. Microsoft, Nintendo, Amazon and RealNetworks serve as significant anchors in the region, with Nintendo and Microsoft headquartered in Redmond, Amazon in Seattle's South Lake Union neighborhood and RealNetworks headquartered north of Seattle's downtown. A recent trend is companies headquartered outside of Washington placing satellite office locations in the Seattle region, such as social game maker Zynga located in Pioneer Square and Facebook located in downtown Seattle. **Exhibit 2** illustrates the locations of firms in the region. Seattle has the highest total number of firms, at 124. The Eastside market boasts a substantial concentration of firms, most notably Bellevue with 46 firms and Redmond with 37 firms. Firms not located in one of

<sup>1</sup> These figures are based on data from the Washington Interactive Network. In addition, Unique Business Identifiers (UBIs) were shared with the Puget Sound Regional Council and the State's Department of Revenue to cross-check firms with reported employment and revenue data.

the cities cited in **Exhibit 2** are dispersed across the region. Small concentrations of three to four firms exist in Tacoma, Renton, Sammamish, Mercer Island, Maple Valley, Issaquah and Duvall.

**Exhibit 2. Interactive Media Firms, Puget Sound Region, 2012**



Source: Source: Community Attributes, Inc., 2012, enterpriseSeattle, 2012.

**Exhibit 3** illustrates the relative growth in the total number of Interactive Media firms from 2007 to 2012.

### Exhibit 3. Interactive Media Firm Growth, 2006-2012

Total Firms 2007	Total Firms 2012	2007-2012 CAGR	2007-2012 % Change
150	304	15%	103%

Source: enterpriseSeattle, 2012.

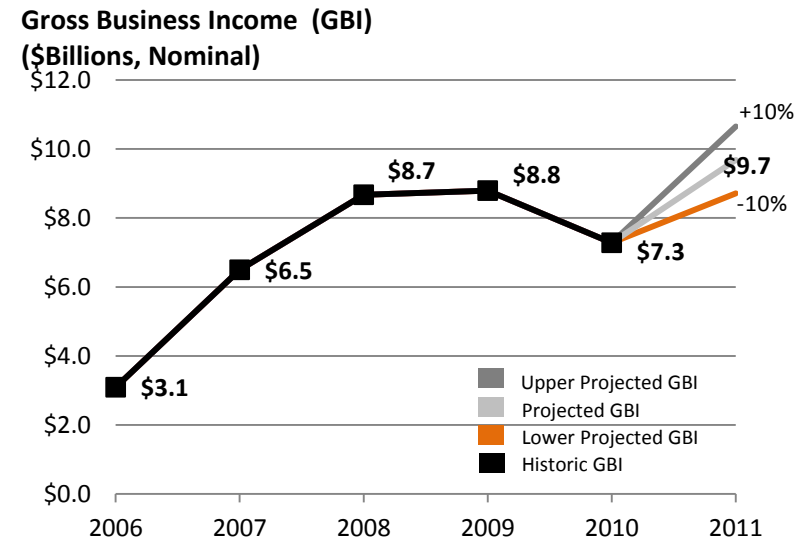
### Revenues

Estimates of the Seattle region’s Interactive Media revenues are presented in **Exhibit 4**. From 2006 to 2008 Interactive Media companies experienced significant growth in revenues, increasing from \$3.1 billion in 2006 to \$8.7 billion in 2008. From 2008 to 2011 the region experienced significant fluctuations in

<sup>2</sup> Gross revenues for all other companies (excluding Microsoft and RealNetworks) were estimated based on Washington State records for taxable revenue for the State’s Business & Occupations tax. Taxable revenues were adjusted to gross business revenue based on industry wide ratios of gross business income to taxable income for Software, Internet Publishing and ISPs, Web Search Portals, Data Processing Services (combined). No additional revenue estimates were added for companies that were not matched in State records.

overall revenues, with revenues dropping from 2009 to 2010 by \$1.5 billion and rising from 2010 to 2011 by approximately \$2.4 billion. Overall, regional game company’s revenues experienced substantial growth from 2006 to 2011 with projected revenues at approximately \$9.7 billion, resulting in a 25% compound annual growth rate (CAGR) from 2006 to 2011. Ranges are displayed that show more pessimistic (-10%) and optimistic (+10%) scenarios.

### Exhibit 4. Historic and Projected Gross and Business Income, Medium to Small Sized Seattle-Based Interactive Media Companies, 2006-2010



Source: Washington State Department of Revenue, 2012.

## Employment

In 2011, at least 16,500 people were directly employed in Interactive Media production in the Seattle region, a substantial increase over the estimated 15,000 in 2006 (**Exhibit 5**).<sup>3</sup> This growth results in a compound annual growth rate (CAGR) of nearly 2%, well above the 2007

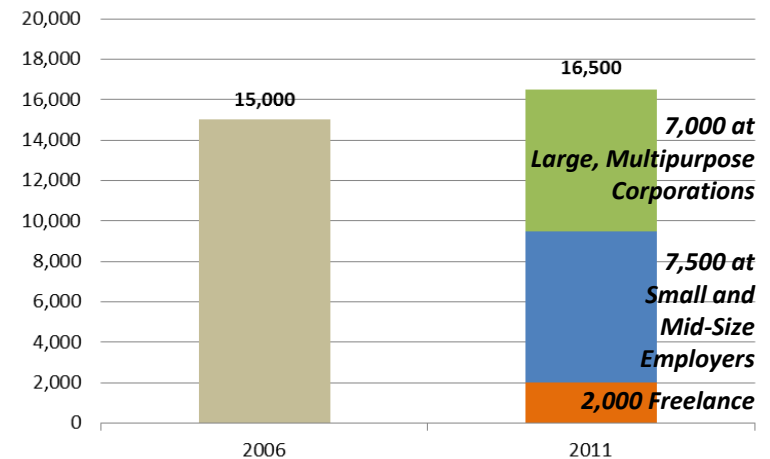
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<sup>3</sup> *Employment estimates were compiled from a combination of fieldwork, surveys, interviews and data mining. Data mined resources included publicly traded companies' financial reports and State of Washington data for the many smaller companies.*

*enterpriseSeattle maintains a list of companies known to work in Interactive Media in the region and State. Community Attributes supplemented the list with companies identified through interviews with industry stakeholders and Internet research. Researchers at Puget Sound Regional Council (PSRC) matched the list with State employment records and private sector vendor employment lists maintained by PSRC, using business names (excluding Microsoft). PSRC summarized the number of jobs reported in State records. Community Attributes augmented PSRC's estimates by 10% to account for proprietors and workers exempt from State unemployment insurance (the source of the State data). Community Attributes assumed 1.5 workers for every known company not matched or found in State records, assuming these companies were "non-employer" firms averaging one to two jobs per company. Microsoft and several other companies were estimated to have approximately 7,000 jobs devoted to Interactive Media, which Community Attributes added to estimates, shown in **Exhibit 5**.*

to 2011 statewide growth rate of 0.3% for all occupations. The CAGR highlights the year-over-year relative change during a given time series. Industry growth is well above similar sectors, such as Information Technology, with a 1.0% CAGR from 2006 to 2011. Of Interactive Media employees, approximately 7,000 are employed at large corporations and approximately 7,500 are employed at small to midsize firms. The approximate remaining 2,000 jobs are freelance workers.

**Exhibit 5. Estimated Employment in Seattle and Puget Sound Region**



Source: BLS, Community Attributes, Inc., 2010.

## Regional Impact

The full economic impact of the Interactive Media Cluster extends beyond jobs and revenues created directly by its member companies. Local suppliers to this sector benefit from increased business-to-business sales, and consumer industries throughout the area benefit from the household purchases made by its employees.

The IMPLAN Input-Output model for Washington, built on detailed information about the spending patterns of businesses and consumers, quantifies these linkages and calculates an estimate of the broader economic impact on the State. The model accepts the input of direct revenues and applies industry-specific multipliers<sup>4</sup> to generate total economic impact metrics of employment, labor income, and revenue. **Exhibit 6** shows the model results, using the 2011 direct revenue estimate of \$9.7 billion for the Interactive Media Cluster.

The IMPLAN model results suggest that as many as 76,670 jobs in Washington can be attributed (directly

or indirectly) to the Interactive Media Cluster. The top industries for indirectly created jobs were real estate services, food and drinking establishments, and employment services. The total revenue impact is an estimated \$17 billion and statewide labor income is roughly \$6.6 billion.

### Exhibit 6. Estimated Statewide Economic Impact of Regional Interactive Media Economic Activity, 2011

	Total Revenues (\$ million)	Total Jobs	Total Labor Income (\$ million)
Total Economic Impacts	17,933.8	76,670	6,595.9

Source: Minnesota IMPLAN Group, Inc.

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<sup>4</sup> *Statewide economic impacts from business spending and employee wages were analyzed with the IMPLAN Input-Output model using a custom-defined sector for Interactive Media. The sector was defined as an aggregate of the predominant industries represented in the Interactive Media Cluster.*



## INDUSTRY WORKFORCE ASSESSMENT

### Occupations and Wages

Employment is the count of jobs primarily devoted to firms in the Interactive Media Industry. This section assesses all occupations that are suitable for Interactive Media spanning multiple industries.

The talent base of Software Developers and Multimedia Artists in the Seattle region is a key aspect of the Interactive Media Cluster and integral to its continued growth. Microsoft is a key supplier of this talent base, but the growing number of independent firms also has a major impact. These skills and jobs are sought by employees, with the Wall Street Journal recently ranked Software Engineers as the best job of 2012 and Computer Systems Analysts at #9. Two Interactive Media occupations are in the top 10 jobs of 2012.<sup>5</sup>

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<sup>5</sup>Wall Street Journal. Best and Worst Jobs of 2012.  
<http://tinyurl.com/7jyl7md>

**Exhibit 7** illustrates the 2010 distribution of Interactive Media occupations in the Seattle Metropolitan Statistical Area (MSA). The occupations selected are considered critical and/or important to local Interactive Media companies and range from Software Developers and Computer Programmers to Multimedia Artists and Computer and Information Research Scientists. Median wages for these occupations are relatively high and represent a broad range of incomes. Computer and Information Scientists

earn the highest median wage at \$114,340, well above all other Interactive Media occupations. Computer Support Specialists earn the lowest median wage in the Industry at \$51,650, still well above the median wage for the overall Seattle MSA at \$44,090. The percent of suitable occupations refers to the percentage of occupations in all industries that are relevant for Interactive Media. This list of occupations is used for exhibits that reference “Interactive Media Occupations,” including **Exhibits 12** through **14**.

**Exhibit 7. Interactive Media Occupational Employment and Wages, 2010**

	Occupations Held	Percent of Suitable Occupation	Seattle MSA Median Wages	Seattle MSA Upper 10% Wages	U.S. Median Wages
Software Developers, Applications	23,630	30%	\$95,590	\$133,900	\$87,790
Software Developers, Systems Software	14,060	18%	\$96,030	\$144,050	\$94,180
Computer Systems Analysts	9,510	12%	\$85,580	\$123,880	\$77,740
Computer Support Specialists	8,960	11%	\$51,650	\$96,100	\$46,260
Computer Programmers	7,610	10%	\$92,110	\$124,160	\$71,380
Computer Occupations, All Other	6,020	8%	\$92,140	\$132,280	\$79,240
Network and Computer Systems Administrators	5,150	6%	\$74,480	\$104,030	\$69,160
Multimedia Artists and Animators	1,930	2%	\$57,200	\$100,380	\$58,510
Database Administrators	1,880	2%	\$86,690	\$118,160	\$73,490
Computer and Information Research Scientists	580	1%	\$114,340	\$165,880	\$100,660
<b>Total</b>	<b>79,330</b>	<b>100%</b>			

Source: BLS, Community Attributes, Inc., 2012.

Comparing median wages of Interactive Media occupations to averages for all occupations in the

region reveals substantially higher wages for the Interactive Media Industry (**Exhibit 7**).

The median wage for Interactive Media employees was \$89,000 in 2010, up from \$74,940 in 2006, a 4.4% CAGR as noted in **Exhibit 8**. Comparably, the Seattle MSA 2010 median wage was \$44,090, up from \$38,920 in 2006, a 3.2% CAGR.

**Exhibit 8. Median Wage Growth, Seattle MSA, 2006-2010**

	2006 Median Wage	2010 Median Wage	CAGR 2006-2010
Interactive Media Occupations	\$74,940	\$89,000	4.4%
All Occupations	\$38,920	\$44,090	3.2%

Source: BLS, Community Attributes, Inc., 2012.

The 2010 salary survey by Game Developer Magazine illustrates Washington’s strength in the Industry relative to other states.

**Exhibit 9** demonstrates Washington’s relative position for average game industry salaries. According to the survey, the average salary for Washington workers employed in the gaming industry in 2010 was just over \$85,000, with approximately half indicating home ownership.

In all three categories listed in **Exhibit 9**, Washington ranks near the top.

**Exhibit 9. Average Salary by State, 2010**

State	Avg. Salary	Percent Who Own Homes	Avg. Salary of Homeowners
California	\$86,772	35%	\$108,061
Washington	\$85,536	51%	\$103,343
New Jersey	\$73,409	54%	\$79,167
Virginia	\$92,000	58%	\$95,833
Oregon	\$71,288	51%	\$94,265
Maryland	\$74,583	39%	\$94,605
Florida	\$57,500	33%	\$81,500
Massachusetts	\$74,049	39%	\$90,081
Illinois	\$70,288	53%	\$85,000
Wisconsin	\$69,891	60%	\$80,714

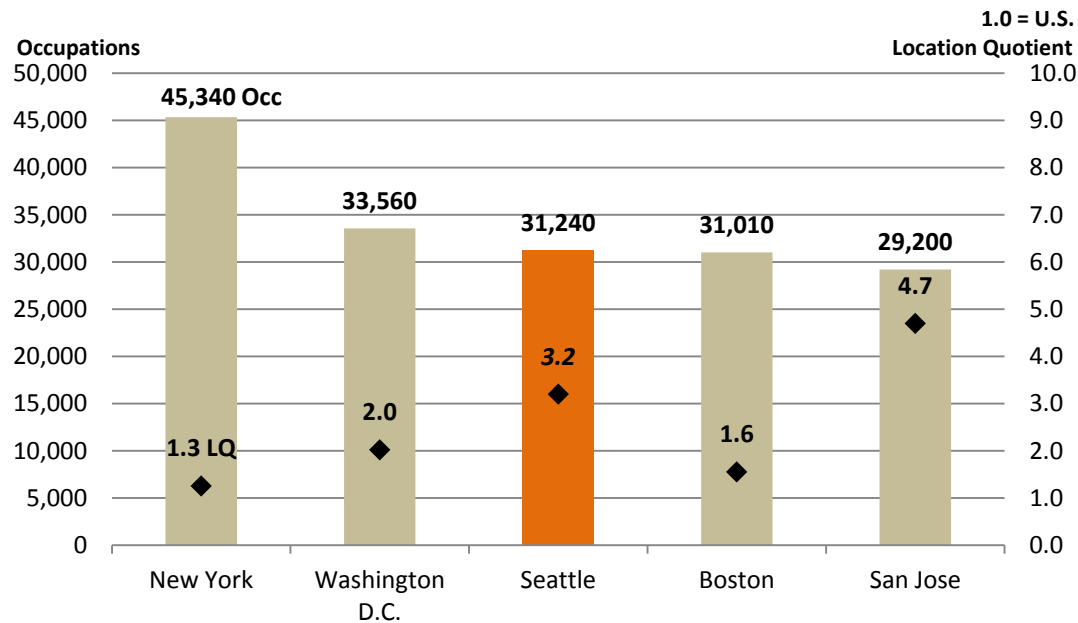
Source: Game Developer Salary Survey, 2010.

**Exhibits 10 and 11** emphasize the total number and concentration of key occupations for the Interactive Media Industry: Computer Engineers and Programmers and Multimedia Artists.

**Exhibit 10** illustrates the top five MSAs for Computer Engineers and Programmer occupations ranked by total volume. The top-ranking MSA by number of Computer Engineers and Programmers is New York with 45,340. The exhibit displays the relative concentration (location quotient or LQ) of Computer Engineers and

Programmers. Seattle’s location quotient, 3.2, represents a clear local specialization in Computer Engineers and Programmers among the local workforce. Seattle has a substantially higher concentration of Computer Engineers and Programmers than New York City and Washington, D.C., both cities with larger total volumes of Computer Engineers and Programmer occupations. Among the top five MSAs by volume, only San Jose has a higher concentration of Computer Engineer and Programmer than Seattle.

**Exhibit 10. Computer Engineers and Programmers, Total Volume, Relative Concentration, Top 5 MSA, 2010**

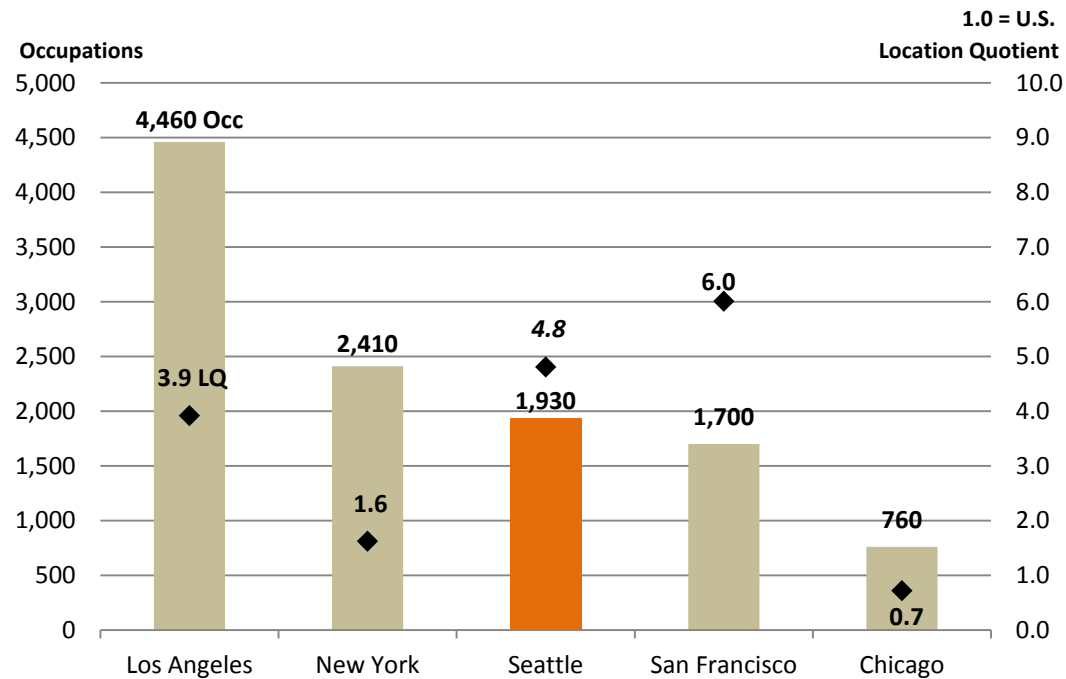


Source: BLS, Community Attributes, Inc., 2010.

**Exhibit 11** demonstrates the number of Multimedia Artists occupations by MSA. Seattle ranks third in number of artists among the top five MSAs. Artists show a higher concentration in Seattle than Computer Engineers and Programmers. While Seattle trails behind national leaders Los Angeles and New York,

the majority of multimedia artists and animators in those cities are employed outside the video game development industry, primarily in film or more traditional artistic media. **Exhibit 11** highlights Seattle's strong specialization in Multimedia Arts at 4.8, second only to San Francisco at 6.0.

**Exhibit 11. Multimedia, Total Volume, Relative Concentration, Top 5 MSA, 2010**

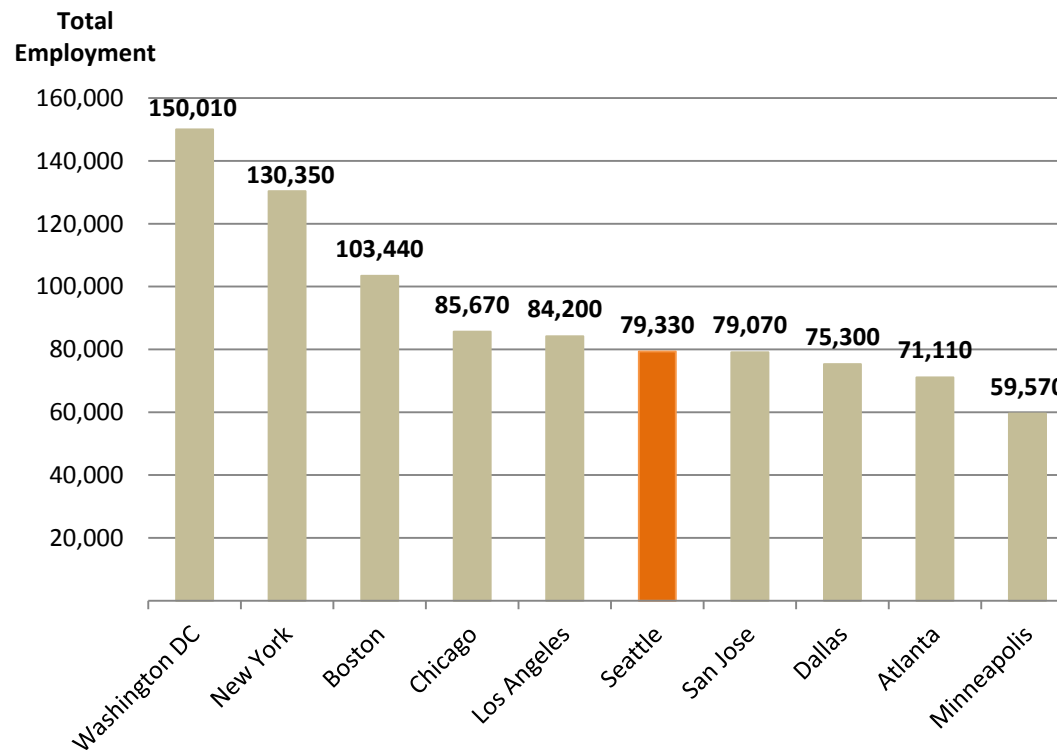


Source: BLS, Community Attributes, Inc., 2010.

**Exhibit 12** represents the top ten metropolitan statistical areas (MSAs) for employment of Interactive Media Occupations (outlined in **Exhibit 7**) in 2006 and 2011. With over 79,000 occupations related to Interactive Media production in 2011, Seattle is ranked

sixth nationally for Interactive Media employment. Only Washington, D.C., New York City, Boston, Chicago and Los Angeles had more Interactive Media related occupations in 2011.

**Exhibit 12. Current Employment of Interactive Media Occupations, Top 10 MSA, 2010**

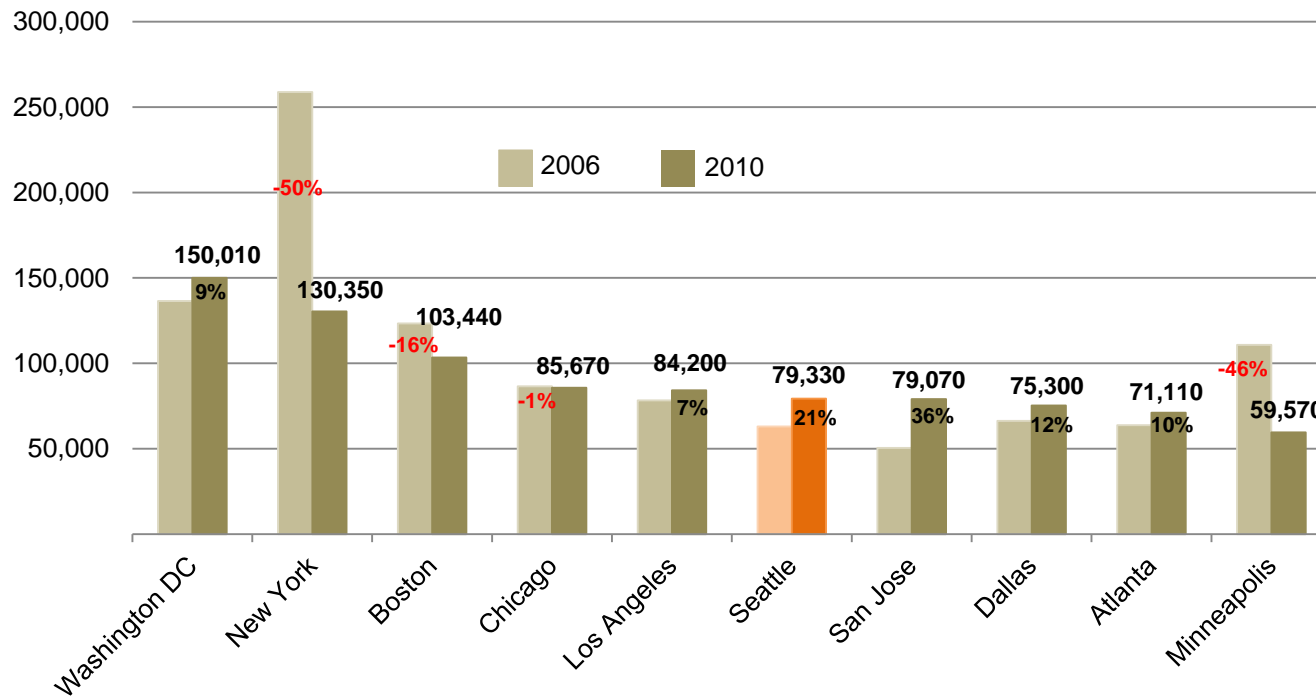


Source: BLS, Community Attributes, Inc., 2010.

**Exhibit 13** illustrates the percentage growth experienced from 2006 to 2011. Seattle experienced a 21% increase in Interactive Media related jobs (outlined in **Exhibit 7**) from 2006 to 2011, with only San Jose experiencing more growth. Seattle outpaced all other

markets listed by a large margin. Several markets with substantially higher employment in the Interactive Media Industry experienced substantial losses, most notably New York City, with a 50% decline from 2006 to 2011.

**Exhibit 13. Total Employment and Percent Change of Interactive Media Occupations, Top 10 MSA, 2006, 2010**

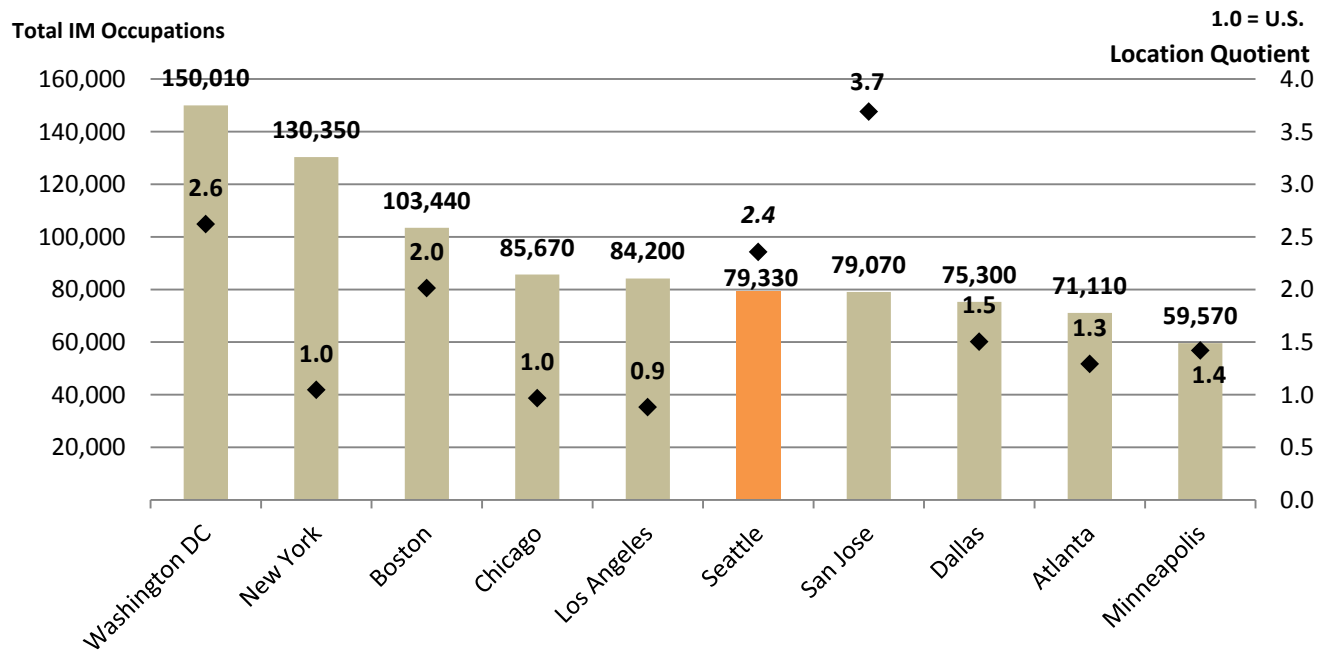


Source: BLS, Community Attributes, Inc., 2010.

An examination of relative concentration of Interactive Media occupations reveals Seattle as well positioned among cities with high total number of Interactive Media occupations. **Exhibit 14** compares Seattle's ranking among the top ten MSAs for total Interactive Media employment to the overall concentration of Interactive Media occupations (outlined in **Exhibit 7**). The concentration, or location quotient, is based on a calculated ratio between the local economy and the economy of other MSAs.

The U.S. concentration equals 1.0. Any figure above 1.0 demonstrates a specialization of the Industry in the local economy. Seattle, with a concentration of 2.4, is ranked ahead of major markets such as New York City and Boston and closely aligned with Washington, D.C., home to more Interactive Media jobs than anywhere else in the country. The area with the highest concentration of Interactive Media occupations is San Jose, a key urban area in Silicon Valley.

**Exhibit 14. Total Employment and Relative Concentration of Interactive Media Occupations, Top 10 MSA, 2010**



Source: BLS, Community Attributes, Inc., 2010.



\*Note: **Exhibit 14** represents the top 10 MSA's by total number of Interactive Media Occupations, shown along the left vertical axis. Relative concentration of each of the MSA's is shown along the right vertical axis.

## Education and Training

The U.S. Bureau of Labor Statistics (BLS) collects educational attainment data through their Current Population Survey which is conducted monthly. Educational attainment refers to the highest diploma or degree, or level of work toward a diploma or degree, an individual has completed. BLS uses six categories based on the distribution of educational attainment across occupations. These categories include: Work experience in a related occupation, Short-term on-the-job training, Moderate-term on-the-job training, Long-term on-the-job training, Postsecondary vocational award, Associate's degree, Bachelor's degree, Master's degree, First professional degree, Bachelor's or higher degree, plus work experience and Doctoral degree.

According to the BLS, the most commonly held educational attainment for the top 10 Interactive Media occupations (listed in **Exhibit 7**) is an Associate's degree, except for Multimedia Artists and Animators more commonly associated with a Bachelor's. However, this reportedly does not align with current market realities and does not indicate that an Associate's degree is the most competitive training required to enter these fields. Computer Science and Engineering degrees are Bachelor's degrees and stakeholders interviewed for this project report the Bachelor's is more commonly found locally. Nonetheless, the BLS data suggest less than a Bachelor's degree is more common. The BLS survey is based on people who currently hold the position nationwide – across all sectors. In some cases, workers may have faced fewer educational requirements when they entered the workforce. As newly trained candidates enter the workforce, industry expectations are likely higher and more demanding in the current marketplace. Local trends also suggest higher expectations for educational attainment, given the presence of the local Cluster which creates a more competitive environment.

## INDUSTRY PERSPECTIVES

This section of the report synthesizes the perspectives from 10 Interactive Media experts. Firms interviewed were all located in King County, including firms in Redmond, Bellevue and Seattle. Interviews were conducted during March and April 2012. Interviews provided general perspectives on the prospects for this growing industry and their experience located in the Puget Sound Region. The interviews reveal specific opportunities and challenges for growing the regional Cluster. A synthesis of Industry perspectives follows.

### Key Factors

- **Overall macroeconomic environment.** The overall macroeconomic environment is important for mobile gaming. Consumer purchase of smart phones is the key driver for mobile gaming firms. The ability to reinvest profits to continue to grow the company and pay people competitively is also a factor.
- **Access to venture capital.** Access to venture capital is critical to up front development costs. The Bay Area is a tough competitor in this regard as there is more venture capital and private equity available to support the risky nature of game development.
- **Intellectual property concerns.** Pirating is a huge threat to the Industry as it stands, and firms need to adapt to meet the challenges.
- **Microsoft Studios.** Microsoft games are on tablets and phones via Win8 and Windows Phones and everything in between. The company continues to provide an important pipeline of talented professionals and contributes to recognition in the region as a leader in the Industry.
- **Mobile technology.** The balance of power between original equipment manufacturers (OEM), carriers and content developers will affect the future of the Industry. Network capacity and strength is also an issue. There is an overload of content and the mobile network needs to be built out to handle growing/large content and data needs.
- **“We can’t grow fast enough.”** Plans for growth and talent pipeline intersect. Impediments to growth primarily surround firms’ ability to compete for and retain qualified talent. Education is key and many students are not prepared for industry jobs. Several firms plan for growth and mentioned expansion in both workforce and physical space. Hiring game designers that know how to build a compelling game and one that makes money is a key challenge for the Industry.
- **Growth outside the region.** One firm acquired a game company in Vancouver, B.C. recently. Attracted by incentives and lower federal tax

rates, prospects for growth in Canada are attractive. Several interviewees mentioned that Interactive Media should have similar incentives to those of Washington film industry, other U.S. states and Canadian incentives.

- **Optimism abounds.** Firms are optimistic that Seattle will continue to be a growth area for the Interactive Media Cluster. Specific strengths include diverse firms, platforms and genres and an overall multiculturalism that spawns the exchange of ideas, especially compared to international competitors.

## Major Trends

The iPhone had just been released at the time the last interactive Media Cluster study was performed in 2007. Since then, mass consumption of smartphones has substantially increased distribution of mobile gaming in particular. Other trends include the in-house publishing and distribution of titles direct to consumers through convenient, instant downloadable content. More details on major trends follow.

## New products, platforms, markets

- **New markets and a wider audience.** The smartphone is the most accessible device that combines cellular telephone, music and video player, digital camera, PDA, and Internet communications suite. This combination of

tools in a small, handheld device has resulted in phenomenal growth of mobile platforms in general and the iPhone in particular is recognized for increasing access and the user experience.

- **Smartphones have increased number and availability of devices for consuming games and other mobile applications.** The rise of smartphone ubiquity amongst consumers has drastically increased demand for mobile casual games, and other types of applications. These devices now function both as telecommunication and information disseminating tools.
- **Casual games.** Casual games are ubiquitous and have grown especially as they are designed to be easy to learn and appeal to a wider audience. Casual games are affordable and thrive on social network sites such as Facebook.
- **Social, interactivity and linear.** A new area that will evolve is the blend of social, interactive and linear gaming.
- **Console games.** Kinect and Sony's NFL Sunday Ticket are complemented by an evolution of on-line services with the console. Console gaming has experienced unprecedented growth at the tail end of the lifecycle with Kinect. Zynga's new picture game Draw Something is taking the world by storm.

## Evolving business models

- **More expensive core games.** The cost of making core games is going up and companies that make them are making games bigger and more expensive so publishers make fewer of them. Much of the anticipated growth in the Industry is from smaller games for mobile platforms. Some companies have done well with larger games, such as Bungie, Sucker Punch and Valve. Regardless of size, scaling teams and projects appropriately are important to mitigating risks.
- **Creators and distributors, one and the same.** A significant trend in the Industry is for firms to distribute titles direct to consumers through convenient, instant downloadable content.
- **Affordability.** Downloadable games can cost anywhere from nothing to \$20, making them more accessible in tougher economic times than traditional console games that cost \$60.

## Future Industry Direction

The overall theme for the future of Interactive Media is that prospects for growth are substantial. Continued proliferation of smartphones and expansion of the direct-to-consumer business model contributes to growth prospects among smaller companies especially. Interactive TV is also a major focus for growth and

innovation. Additional detail on future industry direction follows.

## Mobile

- **Mobile devices as a primary communication tool.** Mobile devices, including tablets and iPhones are the fastest growing segment of gaming and where the promise of most expansion exists. Yet there are markets where handhelds have not penetrated yet and present major growth opportunities. Considering that many countries do not have the infrastructure to develop and maintain physical phone networks, mobile devices are the only communication tool available in some parts of the world. Phones are the primary way to communicate and the fact that phones also offer a gaming-capable handset presents major growth potential.
- **Applications are endless.** Mobile technology, in addition to being a growing platform for gaming, will offer customers more in other areas too. Kids will be issued mobile devices and eventually will submit homework, check grades and be able to play games on the device, some of which will be educational. Mobile technology will be able to monitor healthcare conditions such as diabetes, take blood pressure and temperature measurements and send warnings to the patient and healthcare

providers. Expanded use will create issues with security and privacy but mobile devices will be the default device. Phones will expand their function as a controller of various entertainment frames including TV, game consoles and computers, which will become secondary devices.

- **Social games.** Social games encourage people to play with each other across the Internet and offer a worldwide network of potential opponents and challenges.

### **Interactive TV**

- **Consumer-driven.** A new two-way TV or interactive TV trend is also starting. TV will be augmented to respond to voice and gestures of viewers that will influence roles and outcomes of shows. As for individual handset devices, the personalization and customization of playing games and accessing other media will continue to encourage consumer-driven content.

### **Business models**

- **Freemium business model.** The freemium business model (combination of free game use and premium features) will maintain its hold and continue to grow. The freemium model allows free game products and services and charges only for premium features, such as

speeding up the game and personal customization. Freemium addresses the largest audience possible and will continue as a strong business model for the Industry.

## **Synergy and Support Industries**

Interactive Media firms will benefit from success of and support from other industries. Many of these industries are important to Greater Seattle's economy overall, but were specifically cited as important to Interactive Media. Specific input from interviews follows.

- **Professional, real estate, legal and banking services.** Support industries for the game industry are similar to other industries and include professional services such as legal, banking, real estate, employment services, marketing, public relations and advertising.
- **Strong venture capital network.** The presence of venture capital for Interactive Media in the area is strong. Investors are attracted to the concentration of qualified talent. Seattle is home to 1,000 accredited angel investors with a variety of specialties, including tech.
- **Education.** Continuing to support educational programs to prepare a talented workforce for job opportunities in the Industry should be a focus. This includes schools such as DigiPen, the Seattle Art Institute and new programs such

as those planned by the Academy of Interactive Entertainment and Northeastern University. Large and small companies will benefit from strong local educational programs.

- **Large firms.** Microsoft, Apple and Amazon are all important ecosystems to successfully build games and create synergy. If these large companies are successful, the smaller companies will also be successful. Large companies attract a broader talent pool that supports all local companies.
- **Tech services and hardware.** Interactive Media companies rely on several tech support industries including Amazon web services, Google, and cell manufacturers like HTC and carriers like T-Mobile. Mobile technology firms rely on platform technology companies, original equipment manufacturers and operating system companies. A key locational advantage to Interactive Media firms in this region is access to strong support industries located in the region.

## Workforce Composition and Needs

Interviewees shared similar experiences pertaining to workforce make-up and recruitment, reinforcing the importance of the talent pipeline to industry growth. Typical recruitment tactics and the demographic profile of up-and-coming Interactive Media professionals shed

light on lifestyle preferences which influence business decisions. Details from interview on workforce needs follow.

## Employer needs

- **Attracting and retaining key occupations.** Firms cited that they are in an aggressive hiring mode overall and that hiring in general is more difficult because of the growing amount of technology firms in Seattle and “poaching”. They find relative ease in attracting and retaining graphic designers, animators, quality assurance testers and software people that design for phone and tablet. However, game designers, engineers and flash engineers, creators and backend server developers that develop server software to host the games are difficult to attract. Competition with large firms such as Amazon, Microsoft and Expedia affects small to mid-size firms especially. Key occupations, such as software engineers, are costly to hire and as the economy improves, competition for skilled talent will continue to challenge Interactive Media firms.

Critical Interactive Media occupations cited by interviewees include:

- Games programmers
- Web programmers

- Software engineers
- Production artists/Art Directors
- Game designers
- Producers/Project managers
- Animators
  - 2-dimensional and 3-dimensional
- Audio
- Testers
- Writers
- Interactive creators
- Modernization designers (new role)
- Product designers
- Flash Engineers
- IT, marketing, sales, operations, product development, inventory, public relations, customer service, usability and design, application development, consumer/trade research, human resources (for mobile)
- **Competition for versatile occupations.** Programmers, server, network and database developers and administrators are the most versatile and competed for positions in Information Technology. Small Interactive Media firms compete with larger companies such as Amazon, Microsoft, RealNetworks and Google for these positions, as well as other small game companies.
- **Leveraging teams.** Whether working on large or small projects, Interactive Media firms use a strong team approach. In many companies,

employees have worked at the same place for well over 5 years. However companies working on larger projects associated with more risk may have higher turnover.

## Recruitment tactics

- **Recruitment tactics.** Comprehensive benefits are expected among firms and not a particularly distinguishable recruitment tactic. Most firms recruit on a national basis for specific occupations such as programmers who often come from outside of Washington. The bulk of new hires in game design and animation come from DigiPen. Online professional networking through sites such as LinkedIn are a resource for some, but other companies mentioned their reputation and unique niche attract candidates and require little recruiting. Several companies also rely on employee referrals and one firm mentioned trade magazines to run employment ads such as Game Developer Magazine. Rehiring is common for larger companies whose employees leave to work for start-ups and are recruited back.
- **Internship programs.** T-Mobile as well as other smaller firms rely on internship programs to attract and train talent from local educational programs.

- **Exciting, innovative projects.** Interactive Media projects are fun and generate quick and visible results of employees' work which is a key selling point. Firms also appeal to recruits through innovation in that their games are original and have the “wow” factor. Several firms mentioned that employees are attracted to the opportunity to do original games, not licensed, work-for-hire or “me-too” games.
- **For a large mobile firm, like T-Mobile, selling points include large, well-established and stable company.** The culture and atmosphere is different than smaller startups and can also appeal to a segment of the workforce.
- **Egalitarian structure.** An attractive structure to new recruits is a fairly egalitarian or flat structure rather than a large hierarchy found in larger companies or more traditional businesses. Founders of Interactive Media firms often interact daily with work teams which is a source of inspiration for new hires.
- **Short feedback loop.** Firms also pitch the opportunity to work in a fast-paced environment developing games for months, not years. For online game companies whose games go to market quickly, employees see the impact of their work through millions of players and receive feedback immediately. Broad

opportunities to contribute to the development of the game and to be able to see the visual result is an attractive element for the industry.

### **Interactive Media workforce demographic**

The demographic make-up of the Industry varies and has changed over the last several years. Founders of Interactive Media firms are now experienced professionals, whereas new recruits may be in their early 20s. The Industry continues to appeal to a young, creative workforce. One company's youngest hire was 17 years old and recruited from California, a prime recruiting area, especially for backend game design. Due to the Interactive Media Cluster in San Jose and concentration of colleges and universities in CA, it offers a young pool of skilled talent for recruitment. For the most part, the Industry is male-dominated.

This workforce is quite diverse made up of both creative and artistic types as well as experienced technicians and analysts. Depending on the occupation, some candidates may have little formal schooling. The creative segment of this cohort is said to not be driven by money: “they want to work on cool projects they feel great about.” On the other hand, offering competitive salaries especially for software developers and programmers is a challenge.

Firms mentioned burnout can be high among the workforce due to long hours, which can make the



Industry less appealing for people with families. The internationalization of the workforce was also highlighted.

In making the distinction relating to lifestyle preference, one interviewee explained that firms have to decide “are [they] going to be an Eastside company or a Westside company?” Eastside is recognized as more family-friendly, while younger, single people prefer proximity to transit, nightlife and cultural amenities in Seattle.

### **Role of education**

- **STEM skills.** Interviews suggest that a background in STEM education is necessary. Candidates in local educational programs have strong interest in the field but may not be academically prepared for rigorous curricula such as that offered by DigiPen. For example, a foundation in physics and calculus is important for DigiPen students.
- **Education financing.** Financing an education is becoming increasingly more difficult. There are fewer scholarships, loans and options for well-qualified students. This influences the availability of qualified talent for Interactive Media companies.
- **Local educational programs.** DigiPen was the most commonly cited source to recruit artists and game designers. DigiPen prepares students

for the jobs that exist in the Industry and offers computer science, programming, hardware, art, music and design programs. A Master’s degree in Computer Science is also offered. The Seattle Art Institute was also cited as a source to recruit game artists. A new game school called the Academy of Interactive Entertainment (AIE) will be a future resource. University of Washington’s Computer Science program and Game Development program were also cited by some firms.

## Location Considerations

Virtually no disadvantages of a location in the Puget Sound region were cited by interviewees, save comments regarding the effect of poor weather and isolated geographic location from the rest of the country as it pertains to recruitment. Seattle is the beacon for the industry. Specific physical space needs are not particularly unique to Interactive Media firms compared to tech firms in general. Sense of place and neighborhood fit with firm style and workforce character influence location decisions. More detailed input follows.

### Considerations for office space

- **Secure and convenient.** Unique needs of Interactive Media firms often include comprehensive security systems due to long/odd hours, access to a variety of restaurants and eating establishments, and convenient access to transportation. Some firms may even provide full kitchens with self-serve food 24 hours a day. Comprehensive security is also important to the workforce due to late hours.
- **Functional, not extravagant space.** Gaming companies that are hired by large publishers often host publishers at their facilities to share work and progress on games. Ensuring that

contract dollars are spent on functional rather than extravagant office space is important.

- **Power capacity and fire code compliance.** A common problem among game companies is power outages. Some firms cited problems with power and explained they use a large amount of power and buildings are often ill-equipped to handle demand. Some firms are able to work with landlords to upgrade infrastructure. In other cases, compliance with Fire Codes create additional costs and challenges to reformat office space.

### Geographic niches

- **Roots of Interactive Media in the Eastside.** For some Interactive Media firms, the founders and many early hires came from Microsoft and already lived in the Eastside, establishing strong roots. However, companies reported that newer hires are coming from Seattle. The younger demographic attracted to the Industry prefers a car-free lifestyle and many live in urban neighborhoods like Belltown and Capitol Hill. Firms that prefer Bellevue cited walkability, cleanliness, modernity and proximity to employees that live on the Eastside as key benefits. DigiPen students often live on the Eastside already and transitioning to employment at Eastside firms is convenient for them. Recruiting from competitor companies

on the Eastside is also easier given the presence of a concentration of firms. Disadvantages of an Eastside location are that it lacks the “vibe” of downtown Seattle. Bellevue and Redmond are seen as techy worker cities with less cultural flare than Seattle.

- **Pioneer Square, Downtown.** Pioneer Square was mentioned as an Interactive Media hub, but some firms rejected it as a location due to more convenient downtown locations in terms of transit access. For one firm, getting to the company in one bus ride from key neighborhoods was a priority. The sense from interviewees is that the employment demographic of Interactive Media workers is best suited for a location in downtown Seattle.

## Amenities and Infrastructure

The importance of quality of life and amenities that align with the Interactive Media workforce demographic was a common theme throughout the interviews. Culture, transit and vibrant retail were emphasized. The following themes surfaced from interviews.

- **Culture, lifestyle and amenities.** Companies cite livability and culture as key selling points for talent recruitment. One interviewee had recently taken his employees to the Seattle

Philharmonic Orchestra for a historic game music concert. Art house cinema showings and live music are an absolute necessity of this demographic profile.

- **Strong retail base as an alternative worksite and amenity.** Employees often work in coffee shops or other work environments to get out of the office. Downtown Seattle and South Lake Union in particular offer a strong retail environment conducive to non-traditional work sites. Proximity to a variety of dining establishments is also important for employees working long hours.
- **Transit.** Proximity to convenient transit was the most commonly cited locational consideration for firms located in downtown Seattle. Many Interactive Media workers live in Downtown or Capitol Hill and rely exclusively on public transit. San Francisco’s BART line was highlighted as an example to emulate. Although there is support for light rail in the region, service is limited and interviewees felt it cannot arrive fast enough, especially a connection from the Eastside or Mercer Island to downtown Seattle. Complaints about the existing transit system, and the new toll on the 520 bridge were also mentioned.

## Regulatory Context

Firms cautioned the State and the region in terms of regulatory interference but stakeholders acknowledged growing support of and recognition for the Industry's contributions to the area. Industry-based incentives were broadly mentioned across interviews as an opportunity to further support growth. The following themes provide additional detail.

- **Regulatory climate.** Some respondents felt there is strong support for the Industry whereas others thought government agencies are unaware of the significance of Interactive Media here and should do more to support it. The imposition of the digital goods and services tax at the State level was discouraging for Internet gaming companies. Interviewees suggested continuing to reduce or eliminate red tape and to learn from the lessons of California, seen as having a high sales tax rate and an over-regulatory climate in general.
- **State/local income tax.** On a positive note, the absence of State and County income taxes are favorable.
- **Electrical power needs, building layouts and fire code compliance.** As mentioned previously, some considerations for particular industry needs may be of interest for economic development organizations and regulatory

enforcement agencies such as building and fire departments. Understanding needs and providing guidance to achieve safety standards will support companies' productivity.

- **International competition.** Some firms cited high federal income tax rates as a disincentive, which pushed one company to pursue growth in Vancouver, B.C. where the tax rate is half. Some Canadian provinces also offer rebates for payroll and other expenses and tax credits to encourage Interactive Media. Although there is less entrepreneurialism and venture capital to start a business in Canada, the cost of doing business is much less. In addition to Canada, Singapore and Spain are aggressively building competitive Interactive Media Clusters.

## Economic Priorities and Government Support

Economic priorities for government leaders to consider focused on integrating an Interactive Media theme visually and thematically. Cleaning up downtown Seattle, prioritizing education and transit, the need for affordable office space in desirable neighborhoods, and incentives were also encouraged. Specific priorities highlighted from interviewees follow.

## Place-making through Interactive Media

- **Interactive Media in public spaces.** Several interviewees mentioned opportunities for Seattle to showcase and celebrate Interactive Media through public art and in public spaces to more visually integrate the city's brand with the Industry. One interviewee noted: "People who live in or visit Seattle should see evidence of companies that have created worldwide brands throughout public spaces." Colon, Germany was noted as an example to emulate in this regard. Colon is home to the Industry's largest annual game conference attracting 150,000 people. The conference is embraced in Colon's brand and throughout public spaces. Game art adorns the city, including statues of famous game characters and inset icons of game figures on street corners. The street and public art remind visitors that they are in an artistic, digitally interactive city. This strategy helps the city grow part of its economy and Seattle has even more reason to celebrate the game industry in this way.
- **World-class waterfront.** Waterfront redevelopment is an important place-making opportunity to attract talent and firms to Seattle. Visual recognition of revolutionary products and services through a specific theme for the waterfront is worthy of consideration.

- **Events and recognition.** Another strong game industry city that was highlighted to emulate is Austin, TX. Austin has an event called South by Southwest, which is a music and art festival with a game component. Celebrating games through community social and cultural events is a creative way to recognize and support the Industry and workforce
- **Street disorder in Downtown Seattle.** Downtown businesses identified street disorder and safety as areas for improvement. Aggressive panhandling and the homeless problem in Downtown are the most commonly cited complaints from Interactive Media staff who often work late hours.

## Education

- **Career path promotion.** One interviewee mentioned that more talented young people will be needed for the Industry, especially for programming. Although there are many jobs in the region for programming, it surprises some that more young people are not pursuing it as a career. A career in games may be appealing for the fun and excitement of working on artistic projects. Yet one stakeholder explained that this must translate into specific career pathways for young people who may not know the technical preparation that aligns with jobs: "Working in

games means you need to be an artist or a programmer and these career paths need to be encouraged in the school system.”

### Public sector leadership

- **Transit.** Transit was the most often-cited consideration in location decisions for Interactive Media firms and should continue to be prioritized and expanded.
- **Incentives.** Several firms cited the need for financial incentives and compared Interactive Media to the film industry, supported by the Washington Motion Picture Competitiveness Program. This program offers tax exemptions and other incentives for film production. Incentives in Vancouver, Montréal, New Orleans were also mentioned by interviewees as potential case studies for consideration. Interviewees explained that Interactive Media is high-risk and that carrying costs for staff during transitions from one project to another are difficult to manage. This and the uncertainty of whether a core game will be published, combined with the overall impacts of the Industry contribute to the rationale behind the need for incentives. Leaders feel that the game industry is a large, stable, growing industry and impacts would be measurable and long-term if incentives were used to support it.

- **Economic development organizations.** The role of economic development organizations will be more and more important. Current efforts to connect leaders through Washington Interactive Network programs and events are important for building Industry synergy. The optimism among interviewees indicates that this is one of the brightest spots in the economy and additional networking opportunities would be welcomed.
- **Diversity of office spaces.** Large, newly constructed office buildings are attractive for big companies, but many Interactive Media companies need B office space. Encouraging a mix of development types in desirable areas may require public sector leadership and support.
- **Cluster density.** Encouraging concentration of firms in particular geographic areas provides conveniences for the workforce and firms. Cluster strengths include a strong social community, convenience for clients working with multiple companies and availability of a strong pool of trained candidates.

### Location Considerations

Real estate experts provide insight into how particular economic niches make location decisions and what firms are looking for from a real estate perspective.

This information can support business recruitment and other economic development strategies. To gain this perspective, limited interviews were performed with real estate experts that specialize in real estate services for IT firms. Real estate experts do not distinguish significantly between Interactive Media firms and the overall tech industry in terms of real estate and office space needs and location. Tech companies and Interactive Media firms in particular, want unique spaces that differ from traditional offices. Detailed input on real estate needs is included in this section.

### **Start ups**

A more notable distinction is that of the needs of small tech startups compared to larger more established firms. Startups often do not have real estate and/or business experience and need guidance on leasing and space needs. Small startups look for cheaper, simpler spaces, such as those found in Pioneer Square where lease rates are in the low \$20s per s.f. Rents in South Lake Union are in the high \$30s plus triple-net lease terms (where the tenant is responsible for real estate taxes, insurance, and all maintenance). Small startups prefer shorter-term leases due to the nature of their business model and face challenges negotiating the terms they need. Startups also need flexibility in their physical space as their employee workforce may fluctuate greatly in a short amount of time. Startups also want to be near each other for collaboration and social interaction.

### **Established firms**

Once tech/game companies are established, they upgrade office space and are often willing to spend top dollar on custom tenant improvements. Larger companies such as AOL, Groupon, HTC, Facebook and Google are locating offices in the Seattle market as they grow and are drawn to the area because of the urban amenities and recognized availability of qualified talent.

These larger companies, headquartered in other parts of the country, are looking for satellite offices in places like Seattle that offer attractive spaces and amenities in order to attract top talent. Both startups and more established companies need maximum flexibility in terms of space, layout and lease terms. The exception to these preferences is Microsoft, which prefers a more traditional office layout.

### **Real Estate niches for tech**

The Stadium Innovation Center, south of Pioneer Square in the Stadium District is attracting tech firms. High ceilings, heavy power capacity and data center infrastructure and a fiber rich location are some key features that appeal to tech. Pioneer Square is a desirable location for tech and some buildings are wired with fiber optics, although the area needs better broadband infrastructure and parking. Sporting events pose conflicts considering the industry's later work hours and parking conflicts. Power is also important to

tech firms and outages have been an issue in some neighborhoods, such as Fremont.

### **Style and image**

Location decisions and the features of office space for tech/Interactive Media firms should reflect their style and image. Tech/Interactive Media companies prefer raw, shell space with open ceilings and open floor plans that accommodate more collaborative and efficient spaces. Wide open floor plans with few physical constraints accommodate their more dense use of office space. They prefer natural light and look for sites with great views.

### **Hotelling and hot desking**

Mobile devices and the mobile nature of companies allow flexibility of work space. Office hotelling and hot desking are both unassigned work space options; the difference is that hotelling is unassigned workspace that can be reserved and hot desking is not reserved. These options are often desirable for tech firms that hold long hours and have fluctuating office space needs. From an employee perspective, it allows flexibility for staff to diversify work environments.



## FINDINGS AND RECOMMENDATIONS

The findings below summarize the data analysis and observations from industry interviews. The recommendations stem from industry stakeholder interviews and connect with regional economic development initiatives.

### Findings

- **Interactive Media has major economic impacts.** Interactive Media contributes significantly to the regional economy. Linkages to other industries are found from the impacts of revenues and jobs.
- **Strong and growing industry.** Growth in employment, revenues and physical space are a trend. Growth in the Industry's reach is also significant, driven by new and improved static platforms and mobile technology.
- **Attracting additional skilled talent is a concern.** Local firms cite the only constraint to growth is the availability of qualified talent. The industry is associated with some of the highest paying jobs in the Seattle area.
- **Strong local educational programs play a key role.** Local educational institutions and programs both foster Cluster growth by training candidates and through their research and development activities.

- **Seattle is the game capital.** Seattle boasts a highly specialized talent cluster and culture that aligns well with Interactive Media professionals.

### Recommendations

- **Consider the impact of Seattle's and Washington's technology and game industry worldwide in the region's marketing and branding efforts.** A visual representation of these core industries' significance could enhance the region's image and branding. Opportunities include showcasing Seattle's digital richness in public spaces, the waterfront redevelopment area and events. Visual recognition could attract additional companies and skilled talent to the area.
- **Consider the needs and interests of the industry's workforce.** The game industry workforce is reflective of a larger talent class that is desirable for cities. The "work hard, play hard" demographic enjoys what Seattle offers in terms of culture and entertainment. Understanding the interests and habits of this workforce and molding entertainment and cultural offerings to continue to appeal to them can further establish Seattle as a destination for gaming talent.

- **Make transit a priority.** Lifestyles of evolving employee classes should be considered in policy decisions, particularly transit. Transit access and convenience is the most important factor to location decisions for several firms interviewed.
- **Find creative ways to connect young people to future career paths.** Educational programs should connect young people to careers in games, focusing on specific occupations. Leaders are enthusiastic about growing the Industry and attracting young people, especially creative youth who may not be attracted to traditional learning formats and may excel in alternative educational programs.
- **Partner with industry, economic and workforce development organizations to support educational programs and scholarships.** Partnerships are needed to ensure a steady pipeline of qualified talent is available for industry growth. Industry concerns include decreased scholarships and financial aid available for qualified students and the shortage of qualified candidates for key positions leading to recruitment from outside the area. Some firms offer internship programs through institutions such as DigiPen where part of

payment is funding assistance. Upon completion of the program, successful graduates are hired.

- **Continue to strengthen and expand the Washington Interactive Network.** A key theme in the interviews with industry leaders is to “get the word out” about Interactive Media in Washington. A common incentive that local economic development organizations provide is marketing and promotions. Sharing Interactive Media successes in target markets and continuing to connect Interactive Media companies to resources that support them, such as networking, game start-up workshops, Start-up Weekend and Casual Connect, foster the Cluster.
- **Strengthen venture capital funding and connect VC to Interactive Media firms.** The presence of local venture capital in areas such as Boston and Silicon Valley contribute to entrepreneurialism. Industry stakeholders cited the need for more local venture capital. Connecting local firms to local venture capital groups that specialize in IT can also provide strategic business acumen.