

Interactive Media Competitiveness Study

January 2010

PREPARED FOR:

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EXECUTIVE SUMMARY

The purpose of this study was to compare the competitiveness of the cities which are considered the top Interactive Media hubs in the United States.

It was found that three cities rank in the top tier of the world's leading regions in Interactive Media: Seattle, San Francisco, and San Jose. The interactive media industry includes computer game development, casual games, social games, mobile applications, and related activities.

Of these top tier regions, this study finds the Seattle area among the most competitive in the United States and the world for growth in the Interactive Media sector. These findings are based on industry-selected indicators of competitiveness: talent pool, size of existing industry, education, and costs of doing business. Today, there is no stand-alone national leader in any particular category of competitiveness. Seattle, San Francisco, and San Jose rank high across all categories. However, the cost of living and doing business in California draws the Seattle region to the forefront making it the most attractive and diverse region for Interactive Media development.

Interactive Media is a talent-driven industry that draws on the region's highly educated and talented workforce. Video game and digital media content development is a desirable industry from an economic development perspective because of the talent the industry attracts, along with its entrepreneurial energy and well-paying jobs for skilled workers. Seattle's economic development and Interactive Media leaders are working together to support and grow the industry regionally, and to keep Seattle at the forefront of the industry worldwide.

Relative to other markets, Seattle is known for having a highly developed and diverse video game industry. Some of the top software development companies in the world are based here and draw from an eclectic talent pool.

enterpriseSeattle's 2007 Interactive Media Study found a robust industry with 15,000 jobs among 150 companies, experiencing rapid growth of 8.0% per year from 2003 to 2006. Recently gathered data confirm continued growth in the region's Interactive Media sector. From 2006 to 2008, Interactive Media jobs among established firms grew 14% in the Puget Sound region and 33% in the City of Seattle (these figures exclude Microsoft, for which data were not available for this study). During the same time period, the region produced an additional 15,440 computer programming and engineering positions (more than New York, San Jose and Chicago combined) and 25% more multimedia artist and animator positions, growing its highly-skilled talent pool.

Industry leaders state that demand for top talent exceeds supply in the increasingly competitive environment.

When discussing workforce challenges, industry executives emphasize the need for diversity of skills, the ability to efficiently learn and adapt, a business and team mindset, and a mix of creativity and technical prowess. The region's educational infrastructure plays a key role in supplying talent. Many leading institutions are tailoring existing video game development and Interactive Media curriculums to align with industry workforce needs.

Seattle is poised at the forefront of the industry, including a firm claim on being the world leader in casual gaming and online distribution. The momentum of Seattle's Interactive Media industry is increasingly felt across the world as virtual gaming and distribution networks and mobile technologies rapidly expand the global market place. Much of the infrastructure is in place to keep Seattle competitive. State tax incentives reward innovation and growth, while a rich pool of talent and existing companies provide stability and new spin-offs.

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INTRODUCTION

The Seattle region is one of the leading economic centers of the Interactive Media industry, specifically video game development. Interactive Media is a talent-driven industry that draws on the region's highly educated and talented workforce. Video game and digital media content development is a desirable industry from an economic development perspective because of its culture of innovation and entrepreneurship, its well-paying jobs and the talent the industry attracts. For these reasons, the Seattle region's Interactive Media stakeholders seek to support growth in the local industry, and to keep Seattle competitive in the industry worldwide.

BACKGROUND AND PURPOSE

In 2007, an economic impact assessment of the Interactive Media industry demonstrated the significant economic benefits the industry brings to the Seattle region. Regional stakeholders, including enterpriseSeattle, continue to seek ways to support growth in the industry. This report builds on the previous study to provide an update on regional, national and international trends in the Interactive Media industry, and an assessment of the region's competitiveness and a workforce needs.

APPROACH AND METHODS

This study picks up where the 2007 study concluded. The analysis provides an update of recent growth, relying on employment data accessible from the Washington State Employment Security Department as well as the US Bureau of Labor Statistics. Information on competitiveness and incentives stem from company interviews and online research, including the Internet sites for state economic development offices, where tax laws and industry incentive programs are found.

In addition, the research team participated in and observed meetings of the Interactive Media Workforce Development Working Group, hosted and facilitated by enterpriseSeattle and the Workforce Development Council.

ORGANIZATION OF **R**EPORT

The report is organized as follows:

- **Part 1. Industry Overview.** Part 1 provides an overview of key trends in the Interactive Media sectors globally and in the Puget Sound region.
- Part 2. Competitiveness Indicators and Seattle Region Needs Assessment. Competitiveness indicators are defined and analyzed across top competing regions nationally. Interview findings identify opportunities and challenges for each indicator of competitiveness.
- **Part 3. Statewide Incentives**. Part 3 summarizes detailed analysis of statewide incentive programs in the US. This section also briefly discusses incentive programs in Canada.
- Appendices. Appendix A presents a comprehensive analysis of incentive programs in the US and Canada. Appendix B provides raw data on competitiveness indicators.

PART 1: INDUSTRY OVERVIEW

The Interactive Media industry is a high tech industry that blends art and technology for both entertainment and more serious or practical applications. The core of the industry is the development of digital content, driven by talented individuals with expertise in software and artistic development, including computer game enthusiasts. The development of digital content draws on an extensive range of artistic talents including storytelling, visual media, graphic design, animation, music, sound mixing, and photography, among others. A wide range of technical computer programming and engineering talents are necessary to create the interactive nature of games.

The Interactive Media industry is increasingly moving online, creating a highly connected and highly competitive international marketplace. The industry focuses on serving "the three screens": television, computer monitors, and hand-held devices including mobile phones and hand-held gaming systems. Expanded customer demographics reflect a growing acceptance of Interactive Media as a legitimate means of recreation and a substitute for other leisure activities, such as television programs and movies.

Regionally, streamlined online distribution networks have created new opportunities and challenges for interactive media distributors, developers and publishers. Internationally, the continuing emergence of mobile technology in cultures around the world widens the market place for interactive media developers.

Workforce occupations necessary to support a vibrant Interactive Media industry are representative of the types of skills and talents associated with growing, successful cities and regions in the 21st century (written of extensively by many economists, such as Richard Florida of the University of Toronto). Growth in the industry includes increases in highly-paid, information-driven jobs. A 2007 national study found growth in the industry to exceed 17% between 2003 and 2006, compared to the less than 4% growth exhibited by the entire US economy over the same period (Entertainment Software Association, 2007).

Among international competitors, Canada is the third largest producer of video games. A 2008 survey of the Canadian-based industry identified 247 companies in Canada, directly employing 14,000 Canadians (Entertainment Software Association of Canada, 2009). The combined direct economic activity of the 247 companies is estimated to be CA \$1.7 billion.

enterpriseSeattle and the Washington Interactive Network, among others, have identified the Interactive Media industry as a target industry for economic development efforts in the Puget Sound region.

PUGET SOUND REGION ACTIVITY

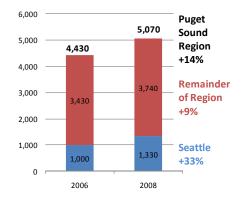
The 2007 Interactive Media Study quantified economic impacts of the Interactive Media sector in the Puget Sound region. Key findings included:

- More than 150 companies or divisions wholly involved in the video game industry in Western Washington (enterpriseSeattle).
- More than 15,000 jobs at companies or divisions wholly devoted to video games, including Microsoft Game Studios, Nintendo and the many smaller companies that compose the cluster.
- Cumulatively, jobs at existing establishments doubled from 2000 to 2006; however, the sector did experience job losses from 2002 to 2004.
- Jobs at smaller companies more than doubled from 2003 to 2006, experiencing 26% annual employment growth over those three years.
- \$4.2 billion in annual revenues associated with 15,000 information jobs.
- The Interactive Media sector has a significant impact on the rest of the economy: 15,000 information jobs support 50,000 to 68,000 jobs in the Washington State economy and \$6.1 to \$8.3 billion in statewide business revenues (2006 dollars).

Updates to findings indicate continued growth from 2006 to 2008 (the most recent year for which data are available).

Jobs at approximately 70 established Interactive Media firms (as of 2006, not including Microsoft) increased by 14% across the Puget Sound region from 2006 to 2008 (**Exhibit 1**)¹. Jobs in Seattle grew 33% over this two year period, while jobs in the remainder of the region increased by 9%.

Exhibit 1: Jobs at Established IM Employers,



Regionwide, 2006 - 2008

Source: PSRC, 2008

¹ Exhibit 1 presents covered employment trends for firms that existed in 2006 that were still operating in 2008. Figures do not include businesses that closed or opened between 2006 and 2008. Figures exclude interactive Media employment at the Microsoft Corporation.

PART 2: COMPETITIVENESS INDICATORS AND SEATTLE REGION NEEDS ASSESSMENT

This section of the report defines and analyzes six key indicators that influence competitiveness for Interactive Media firms in leading regions across the nation.

The six competitiveness indicators include:

- Number of firms
- Computer and engineering talent
- Multimedia and animation talent
- Educational institutions
- Cost of living
- Cost of business

The twelve competing regions analyzed include:

- Seattle
- Atlanta
- Austin
- Boston
- Chicago
- Dallas
- Los Angeles
- Minneapolis
- New York
- Salt Lake City
- San Francisco
- San Jose

The following section of the report pairs analysis of competitiveness indicators across leading regions with interview findings and commentary from industry leaders.

The section concludes with a summary of competitiveness indicators and classification of regions into four "tiers of competitiveness."

FIRMS

Exhibit 2 shows the top ten leading countries ranked by the number of video game development firms listed on gamedevmap.com, illustrating that Interactive Media is a global industry.² Gaming companies are setting up satellite offices in world hotspots, capitalizing on emerging markets, incentives being offered, reaching other cultures, and gaining regional relevance. The United States leads the world in video game development firms. Canada has the second most firms of any country, led by Vancouver and Montreal. Japan, South Korea and China follow, with clusters based in Tokyo, Seoul and Beijing.

Within the US, three of the top five cities with the highest number of firms are located in California (**Exhibit 3**). In national leader Los Angeles, interactive media firms are believed to place greater emphasis on animation for the film industry than video game development.

Seattle ranks second in the US, and among the top regions in the world, for number of video game development firms.

Exhibit 2: Global Leaders in Interactive Media,

Rankings by Number of Firms

1.	United States
2.	Canada
3.	Japan
4.	South Korea
5.	China
6.	Sweden
7.	Finland
8.	Denmark
9.	Ireland
10.	Norway

Exhibit 3: National Leaders in Interactive Media

Ranking by Number of Firms

- 1. Los Angeles
- 2. Seattle
- 3. San Jose
- 4. Austin
- 5. San Francisco
- 6. Boston
- 7. Chicago
- 8. New York
- 9. Dallas
- 10. Atlanta

Source: gamedevmap.com

² Gamedevmap.com maintains a global catalog of game development organizations. The inventory of firms is incomplete and is not used for direct quantitative analysis in this study. In the absence of traditional data sources, this resource provides helpful qualitative information that allows regional and international comparisons.

TALENT AND WORKFORCE NEEDS

Occupations

As Interactive Media firms grow from small start-ups to major employers, corporate expectations can create new workforce challenges.

Industry leaders identify computer programmers and engineers, and multimedia artists and animators, as the two most demanded occupations in the Interactive Media industry. A cursory scan of 40 local interactive media companies revealed that about 80% of firms with job information had a combined total of 170 job postings, of which computer programming and engineering positions accounted 60% of openings, while artistic positions accounted for nearly 20%. The following section measures the presence of these two occupations in top regions within the US. Key interview findings regarding workforce needs for each respective occupation are also presented.

Analysis of talent and workforce needs concludes with an overall commentary on Seattle's workforce as detailed by some of Seattle's leading interactive game development executives. Emerging issues range from skill requirements for new employees to the cultural environment of growing firms.

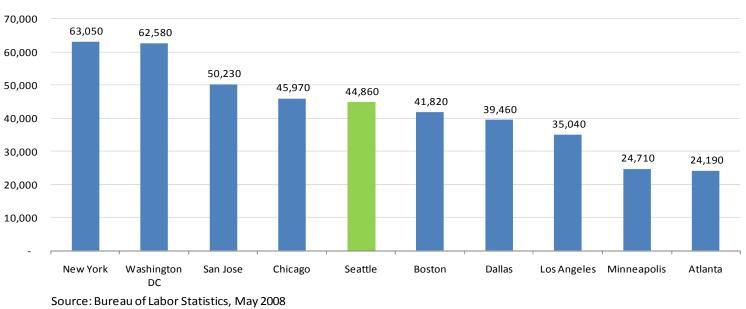
Computer Programmers and Engineers

The Seattle region has the fifth most computer programmers and engineers of any region in the nation (**Exhibit 4**). From 2006 to 2008, Seattle MSA produced an additional 15,440 computer programmers and engineering positions, more than New York, San Jose and Chicago combined.

According to industry executives and a cursory scan of job openings among local gaming firms, computer programmers and engineers are in greatest need and shortest supply. In the Interactive Media sector, demand for online programming has soared as virtual platforms and online distribution networks continue to capture a greater share of the interactive gaming market.

The best and most popular software tools change quickly, challenging the programming workforce to learn rapidly on the job.



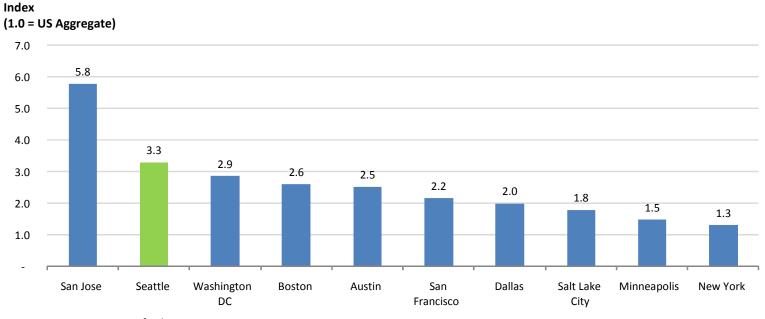


Total Computer Programmers and Engineers, Top Ten MSAs, 2008

Interactive Media Competitiveness Study enterpriseSeattle/Washington Interactive Network When accounting for the size of the metropolitan area, the Seattle MSA has the second highest concentration of computer programmers and engineers, behind San Jose. (**Exhibit 5**). Programmers and engineers are over three times more concentrated in the Seattle MSA than in the rest of the nation. Industry leaders cite Seattle's reputation as a national leader in innovation and technology, coupled with perceived high quality of life, as a key factor in attracting talent and businesses. Seattle's concentration of programmers and engineers helps shape the region's image, enhancing its ability to compete amongst the nation's larger regional economies for talent and firms.

Exhibit 5

Relative Concentration of Computer Programmers and Engineers,



Top Ten MSAs, 2008

Source: Bureau of Labor Statistics, May 2008

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Multimedia Artists and Animators

Approximately 1,350 multimedia artists are employed in the Seattle Region, the fourth most of any region in the nation in 2008 (**Exhibit 6**).

From the two-year period from 2006 to 2008, the Seattle MSA produced a 25% net increase in multimedia artist positions. 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 medias. In Seattle, many multimedia artists focus on video game development. Industry experts speak to various challenges with the artistic workforce, primarily at the nexus of creativity and technology. Technology specialties and artistic capabilities are rarely found in the same person. Artists may resist the industry's need to change tools or technological constraints on artistic expression.

Industry leaders suggest that as online avenues increasingly level the playing field in game development, "creativity is king again." As a result, there is a growing need for story-boarding skills, creative writers, and artists.

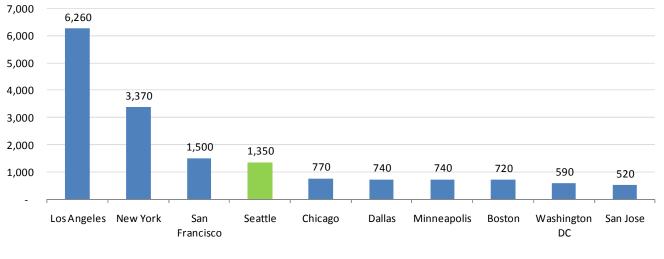


Exhibit 6: Total Multimedia Artists, Top Ten MSAs, 2008

Source: Bureau of Labor Statistics, May 2008

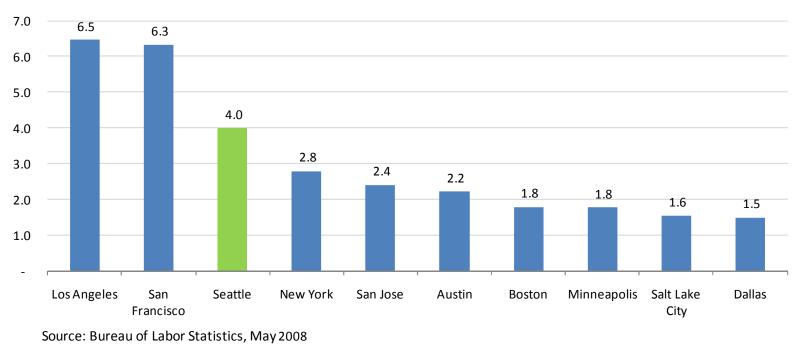
When accounting for the size of the metropolitan area, the Seattle MSA has the third highest concentration of artists and animators, behind Los Angeles and emerging leader San Francisco (**Exhibit 7**).

Multimedia artists are four times more concentrated in the Seattle MSA than in the rest of the nation.

However, while multimedia occupations have increased in the region, the relative concentration of artists in the region is 1.6 times less than it was in 2006.

As stated previously, the focus of multimedia occupations in several leading cities is heavily tied to the film industry. While Los Angeles maintains nearly two times as many artists as the next leading metropolitan area, artists primarily work in multimedia and animation positions within the film industry.

Exhibit 7



Relative Concentration of Multimedia Artists, Top Ten MSAs, 2008

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Skills and Cultural Needs

Industry leaders state that a broad array of skills and talents are required to succeed on the job, with diversity skills and adaptability preferred over specialization.

Executives cite that new hires often lack a productoriented and business focus. Teamwork, task management, project execution, and self-teaching are often the most important skills that firms look for in an employee.

The constant evolution of development and distribution mediums, coupled with the pressures of bringing products to market, requires rapid individual learning while products are live and functional. One leader described the process "like building a 747 out of a kite while keeping the kite in the air as we add parts to it" (paraphrased).

Competition for talent among companies is fierce. Several industry leaders state that demand is higher than current supply. Often times the most desirable talent resides in other existing companies. Technical talent is highly demanded because skills such as software and online computer programming are applicable to a broad section of business sectors.

The ability of technical talent to pursue diverse career paths creates a challenge for many Interactive Media firms. While major employers such as Boeing, Expedia, Amazon, T-Mobile, and Microsoft support a strong economy and contribute to the region's supply of technical talent, they also compete with video game development firms for talent.

While company cultures vary, most firms have a culture that is both intense and informal. Employees are expected to work full weeks and sometimes late hours to meet deadlines. One industry leader said that he tells new employees, "Give up your social life and learn to sleep under your desk."

While the fast-paced, frenzied work environment may still be the norm, one industry leader notes that, "work culture has shifted over the years. The average game developer in my local studios is around 38 years old and is now married with children."

The big draw for many employees is an office culture that bridges both work and play. As one CEO illustrates his firm's culture, "We end each day with a play session. We kill each other for an hour and then we all go home and come back the next day."

TRAINING INSTITUTIONS

Educational institutions play a key role in supplying the region's Interactive Media sector with new talent. Washington State ranks among the top ten states in the country for video game development education.

Washington has a total of 11 educational institutions that offer video game development courses and curriculum (**Exhibit 8**). Nearly all educational institutions are clustered within the Puget Sound region.

Human resource directors and recruiters from leading interactive gaming development companies cite DigiPen Institute of Technology as a key provider of well trained, work-ready talent. The University of Washington at Bothell is collaborating with a leading interactive media developer to create a tailored curriculum modeled after national leader Carnegie Mellon University. The Art Institute of Seattle is currently overhauling its media arts curriculum to meld web and graphic design with motion and 3-dimensional mediums while placing greater emphasis on professional and team development skills, all of which aligns with workforce needs of the Interactive Media sector.

Despite Seattle having one of the strongest regional educational infrastructures for producing talent in the country, university and human resources representatives agree that the demand for work-ready talent outweighs supply.

Exhibit 8

Washington State Institutions with

Curriculum for Gaming

Institution	City
Art Institute of Seattle	Seattle
Bellevue Community College	Bellevue
DigiPen Institute of Technology	Redmond
Edmonds Community College	Lynnwood
Lake Washington Technical College	Kirkland
Seattle Central Community College	Seattle
University of Washington	Seattle; Bothell; Tacoma
Clover Park Technical College	Lakewood
Hidden Edge 3D	Tacoma
Shoreline Community College	Shoreline
Cornish College	Seattle
SQLSoft, Inc.	Bellevue; Everett; Redmond; Olympia

Source: enterpriseSeattle, Entertainment Software Association, 2009

COST OF LIVING

Cost of living is a major factor in attracting and retaining talent in the Seattle region. When employees and businesses consider the cost of living, the cost of housing drives overall cost perceptions, as evidenced by comments from industry executives. Seattle ranks fifth among leading metropolitan areas in housing affordability (**Exhibit 9**). While housing costs are generally seen as an impediment to attracting talent, a recent survey of game developers published by Game Developer in 2009 found that nearly 60% of employees in Washington State own homes, the highest of any state.

Other key determinants of cost of living include transportation, taxes, education and consumer goods. Some business leaders cite cost of living as a primary advantage for emerging regions, such as Austin or Dallas. Conversely, many business leaders point out that Seattle is less expensive than California cities, from where they recruit much of their talent.

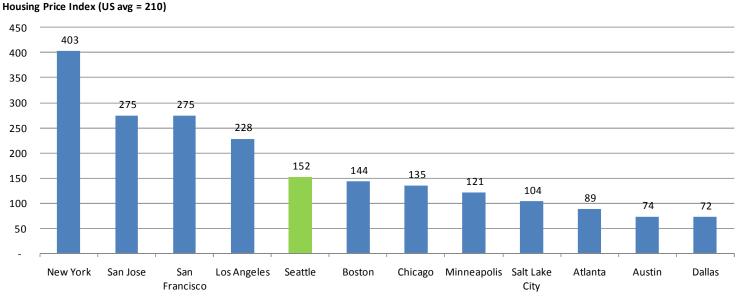


Exhibit 9: Cost of Living, Housing Price Index, 2009

Source: The Council for Community and Economic Research

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COST OF BUSINESS

Industry leaders state that availability of talent outweighs cost of business considerations. However, local incentives being offered may affect decisions for new projects. The cost of business is one of the only factors that public entities can influence in their efforts to attract and retain Interactive Media businesses, making it a relevant and important factor in determining regional competitiveness.

Geographical determinants of business costs include taxes and labor costs. Labor is usually the largest expense for Interactive Media firms. Seattle ranks among the top regions for highest paid computer programmers (the most sought after and prominent occupation in Interactive Media) in part due to established firms such as Microsoft and others, and in part due to the cost of housing (**Exhibit 10**).

Other factors that influence the cost of business are office and server space, power and electricity, and taxes. Seattle ranks in the middle of the pack among leading regions for taxes. Absence of a state corporate income tax is often seen as favorable recruitment tool; however, the overall tax burden in the Seattle region offsets this reduction in business expense.

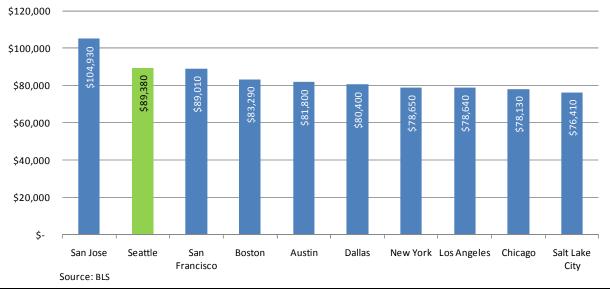


Exhibit 10: Cost of Business, Computer Programmer Labor Costs, 2008

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COMPETITIVENESS

Several studies rank the competitiveness of high tech industries in cities, regions and states. In order to develop a comparative assessment of the Seattle region's competitiveness in the Interactive Media industry, this effort identified six indicators that are critical to the success of the industry. These include:

- Number of video game development firms
- Total number of computer programmers and engineers
- Total number of multimedia artists
- Number of educational institutions
- Cost of living
- Cost of business

These indicators were compared amongst 12 of the nation's leading regions. **Exhibit 11** below demonstrates visually how each region ranks among the six criteria.

This study does not identify an overall rank for the competitiveness of each of the regions. There are two primary reasons for not developing a competitiveness ranking. First, weighting of competitiveness indicators (e.g., are computer programmers more important than multimedia artists when determining regional competitiveness?) is subjective and varies based on company needs. Second, available data sources fail to convey important indicators of quality or focus (e.g. quality of educational institutions).

Therefore, instead of ranking, the overall competitiveness of regions is classified into four tiers based on quantitative and qualitative assessments. This study aims to determine whether Seattle is considered in the top, second, third or bottom tier of competitiveness for national Interactive Media activity and growth. Data from which the matrix was derived can be found in **Appendix B**.



Exhibit 11: Regional Competitiveness Rankings and Indicators

Source: gamedevmap.com, Bureau of Labor Statistics, Entertainment Software Association; see Appendix B for further details

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REGIONAL COMPETITIVENESS FINDINGS

Seattle

Seattle has a highly developed and diverse video game industry and is home to top software development companies in the world. While Seattle does not lead in any particular category, it ranks favorably in each of the six competitiveness indicators, making it one of the most attractive and robust regions for interactive media development in the nation.

Seattle is among the top tier regions in the nation in overall competitiveness in the Interactive Media sector, joined by San Jose and San Francisco, and followed closely by Los Angeles.

Seattle has the second largest number of firms of any metropolitan region, following Los Angeles, according to gamedevmap.com. San Jose, San Francisco, Austin and Boston also have a significant concentration of firms. ³

³ Gamedevmap.com is the only source of a consistent, global catalog of game development organizations. The inventory of firms is notably incomplete and is not used for direct quantitative analysis in this study. In the absence of traditional data sources, this resource provides helpful qualitative information that allows regional and international comparisons. Seattle ranks in the second tier for metropolitan areas with the largest talent pools, with other metropolitan areas including Boston, Chicago and Dallas. New York, Chicago and San Jose ranked among the top three largest workforces in terms of both programming and multimedia talent in 2008. San Francisco, Los Angeles and New York ranked in the top three for multimedia artists.

When accounting for size of the economy, Seattle is the only region in the country that ranks in the top three for concentration of programmers and multimedia artists. This demonstrates that specializations of the region's workforce align with workforce needs for the Interactive Media sector.

With 11 educational institutions that provide interactive media development courses or curriculums, Seattle ranks among the top three metropolitan areas in terms of educational institutions. Only the Los Angeles region has more educational institutions with relevant curriculum than Seattle.

Competing regions

Most industry experts view the Bay region (San Jose and San Francisco) as the Seattle region's biggest competitor. The Interactive Media sector in San Jose and San Francisco leverage the IT sector in Silicon Valley, with San Jose leading the nation in concentration of computer programmers and engineers and San Francisco emerging as a leader in multimedia arts. San Jose and San Francisco rank in the third and fourth tier regions for educational institutions with interactive gaming curriculums. Both of these cities have among the highest cost of living and the cost of doing in business in the nation.

Los Angeles, leads the nation in the number of video game development firms, multimedia artists and the number of educational institutions that train new talent, but trails Seattle and other leading metros significantly in computer programming talent. While industry experts quickly recognize Los Angeles as a creative powerhouse, they state that firms place a greater emphasis on animation and the film industry. They state that programming talent isn't respected and doesn't garner the "value" needed to make the interactive gaming industry thrive. Lack of affordable housing and high cost of doing business in the City further hamper Los Angeles's competitiveness for game development firms.

Emerging regions include Austin and Boston, while larger regions including New York and Chicago have ample talent but lack a strong presence of Interactive Media firms.

PART 3: STATEWIDE INCENTIVES

Incentives that support growth in the Interactive Media sector are an important component of economic competitiveness. This section of the report provides an overview of incentives offered among the ten states with the largest concentrations of Interactive Media firms.

Tax incentive programs are most often designed as job creation strategies and are generally developed and adopted by state legislatures. A total of seventeen US states currently have incentive programs targeted towards the Interactive Media sector. Most state incentive programs for Interactive Media are extensions of existing incentive programs directed at the film and media industries. Canada also has a number of strong incentive programs, referenced by many local industry leaders as quality models that emphasize a strategic investment in Interactive Media start-up and development activities. **Exhibit 12** is a map of the continental United States which presents tax incentive programs and shows the twelve most competitive metropolitan regions for Interactive Media. Most state incentive programs are clustered in the Northeast, Midwest, Southeast and Southwest portions of the Country. The twelve most competitive regions for Interactive Media development are located in nine states, of which only four have state incentive programs (Washington, Massachusetts, Texas and Georgia).

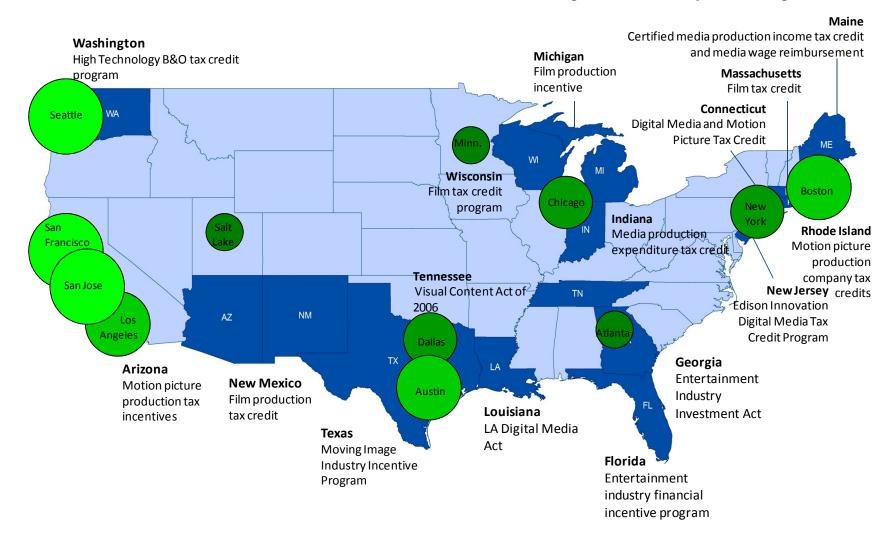


Exhibit 12: United State Interactive Media State Incentive Programs and Competitive Regions

Source: state government websites, gamedevmap.com, bureau of labor statistics, entertainment software association

State Interactive Media incentive programs generally offer cost reductions in one or more of six key areas:

- Labor
- Local production
- Sales
- New construction of facilities
- Equipment
- Research and development (R&D)

Exhibit 13 presents a breakdown of tax incentives in the six key areas of cost reduction for the ten states with the most competitive environment for Interactive Media and the highest cost of business. Some of the ten states have not been discussed previously in this report because they do not contain the twelve most competitive metropolitan regions (Utah, Maryland, and Florida).

Of these ten states, five offer incentive programs. Four states offer employee incentives (Washington, Massachusetts, Florida and Georgia) which enable income tax exemptions or deductions of labor costs from taxable income. Two states (Massachusetts and Georgia) provide financial support for local production; and two offer equipment incentives (Texas and Georgia). Washington is the only state that offers financial incentives to support research and development as well as the construction of buildings that support Interactive Media uses. California, the national leader in both Interactive Media firms and jobs, does not offer any state incentives.

Appendix A presents a detailed description of incentive programs offered in the US and Canada.

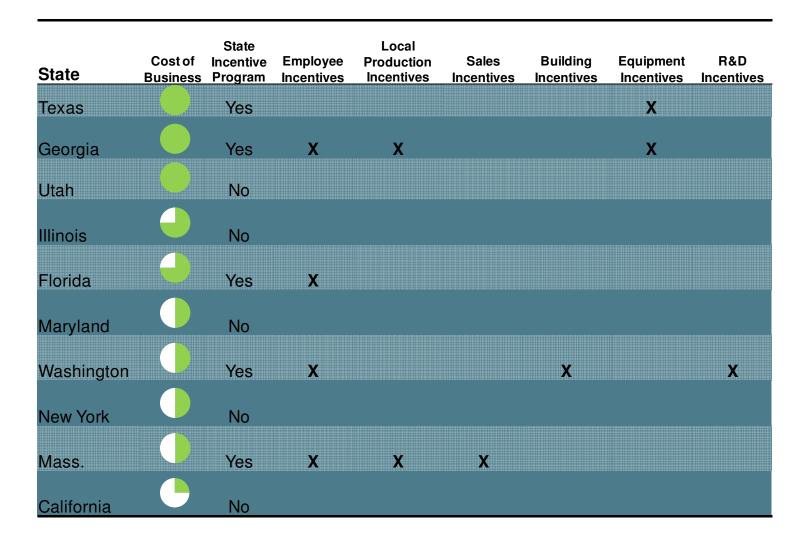


Exhibit 13: Statewide Incentive Programs and Competitiveness Indicators

Source: State government websites, BLS, Community Attributes

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CONCLUSIONS

The Interactive Media industry in the Seattle region is a growing cluster strong with strong momentum. Seattle is poised at the forefront of the industry, and leads the world in casual game development and online distribution. The reach of Seattle's Interactive Media industry spans the world with online games, distribution networks and mobile technologies covering the global market place.

Much of the infrastructure is in place to keep Seattle competitive. Seattle ranks among the top tier regions in the nation in overall competitiveness in the Interactive Media sector, along with the Bay Area and Los Angeles and international leaders such as Vancouver, Tokyo and Seoul. Two factors that continue to push the Seattle region ahead of its competitors are the region's historic strength in wireless talent and technologies, and the significant lower cost of doing business. The region's strong breadth and depth in multiple areas of game development and the wireless sector makes it one of the most attractive and robust regions for interactive media development in the nation.

The Seattle region has a highly developed and diverse video game industry with the co-location of some of the world's top interactive media development companies. Seattle has a rich talent pool with both technical capacity and artistic creativity; a combination that sets it apart from its national competitors. Seattle has one of the largest educational networks of any region in the nation, which actively strives to improve and supply more workready talent. While cost of living and cost of business are two competitiveness indicators that often favor less established regions, industry experts state that Seattle's rich talent pool, high quality of life, and innovative climate currently outweigh cost considerations. Public support also helps mitigate cost concerns for companies that wish to pursue this assistance, through state tax incentives rewarding innovation and growth.

APPENDIX A: REVIEW OF INCENTIVE PROGRAMS

WASHINGTON STATE "HIGH TECH" TAX INCENTIVES

B&O Tax Credit

Washington State's Business and Occupation Tax Credit for Research and Development Expenditures by High Technology Firms was established in 1994 and revised in 2004 and again in 2005. The statutes provides a tax credit of up to \$2 million annually for eligible expenditures (including labor costs) by firms that are engaged in advanced computing, advanced materials, biotechnology, electronic device technology, and environmental technology.

The credit is allowed for eligible expenditures in excess of 0.92% of the firm's taxable income.

In 2008, 516 firms claimed B&O tax credits, amounting to more than \$22 million in tax credits (154 firms receiving tax credits requested non-disclosure, and therefore no data on their awards is available). It is not clear how many Interactive Media firms have used the B&O tax credit. However industry representatives note that not all video game development firms take advantage of the credit or are eligible for tax breaks. Some local firms using IP (internet protocol) addresses outside of Washington State have found barriers to pursuing tax credits. **Exhibit A-1** presents the total tax credits awarded to firms across all industries for the High Tech B&O Tax Credit program.

Exhibit A-1

Total Tax Incentives Awarded (all industries) in Washington State in 2008

	High Tech B&O Tax Credit	High Tech Sales & Use Tax Deferral
Count of Firms Receiving Tax Break	516	79
Amount Received*	22,789,168	121,337,653

*For the B & O Tax Credit amount does not include aw ards to firms which requested nondisclosure. In 2008 154 firms received a tax credit but requested non-disclosure.

Source: Washington Department of Revenue, Tax Incentive Public Disclosure Reports (Annual Surveys 2008-2004).

High Tech Sales & Use Tax Deferral

Washington State's high technology deferral/exemption program was established in 1994, effective in 1995. It provides a deferral (and ultimate waiver) of state and local sales and use taxes on constructions of facilities and purchase of eligible machinery by firms engaged in advanced computing, advanced materials biotechnology, electronic device technology, environmental technology.

In 2008, there were 79 firms claiming sales tax deferrals in advanced computing, amounting to more than \$121 million in state and local sales tax deferrals.

The following definitions are relevant to Washington State's incentives:

"Qualified research and development" means research and development performed within this state in the fields of advanced computing, advanced materials, biotechnology, electronic device technology, and environmental technology.

"Research and development" means activities performed to discover technological information, and technical and non-routine activities concerned with translating technological information into new or improved products, processes, techniques, formulas, inventions, or software. The term includes exploration of a new use for an existing drug, device, or biological product if the new use requires separate licensing by the federal food and drug administration under Chapter 21, Code of Federal Regulations (CFR), as amended. The term does not include adaptation or duplication of existing products where the products are not substantially improved by application of the technology, nor does the term include surveys and studies, social science and humanities research, market research or testing, quality control, sale promotion and service, computer software developed for internal use, and research in areas such as improved style, taste, and seasonal design.

"Advanced computing" means technologies used in the designing and developing of computing hardware and software, including innovations in designing the full spectrum of hardware from hand-held calculators to super computers, and peripheral equipment.:

"Qualified research and development expenditures" are defined as: operating expenses, including wages, compensation of a proprietor or a partner in a partnership as determined under rules adopted by the department, benefits, supplies, and computer expenses, directly incurred in qualified research and development by a person claiming the credit provided in this section. The term does not include amounts paid to a person other than a public educational or research institution to conduct qualified research and development. Nor does the term include capital costs and overhead, such as expenses for land, structures, or depreciable property.

	Washington	Arizona
	High Technology Business and Occupation Tax Credit Program	Motion Picture Production Tax Incentives Program
	2004, expires January 1, 2015	Originally 2005, updated in 2008
Who is eligible?	Companies engaged in research and development in the fields of advanced computing, advanced materials, biotechnology, electronic device technology and environment technology. Firms' R&D spending exceeds 0.92% of the firm's B&O taxable revenues during the same calendar year.	Companies primarily engaged in production with a physical office in Arizona and an Arizona bank account that anticipated spending at least \$250,000 per production.
What products qualify?	Technologies used in the designing and developing of computing hardware and software.	Motion pictures (including video games) where Arizona residents comprise 50% of all full-time employees during production.
What is the incentive?	 B&O Tax Credit for R&D expenditures: Up to \$2 million in credit available each year to each eligible firm. Effective Jan 1, 2009, firms can take a credit equal to 1.25% of R&D spending. Sales Tax Exemption: Sales tax exemption on construction of R&D and Pilot scale manufacturing facilities. 	 Transaction Privilege Tax Exemption: Exemption from AZ's state transaction privilege taxes (TPT) of approximately 6% at the point of sale or contract. Use tax Exemption: Approximately 5% off on machinery, equipment and other tangible personal property purchased outside AZ and transported to AZ for use in a production. Income Tax Credit: Transferable state income tax credits of 20% - 30% off the Arizona project costs, not to exceed \$5M in any year. Allocations are limited by the annual cap for the entire program.
What expenditures qualify?	Operating expenses, including wages, compensation of a proprietor or a partner in a partnership, benefits, supplies, and computer expenses, directly incurred in qualified research and development by a person claiming the credit provided in this section. Does not include capital costs and overhead, such as expenses for land, structures, or depreciable property.	Salaries or wages paid to AZ residents, production expenses, facility or equipment rental, other direct in-state costs.
Additional information	Washington Department of Revenue, 800-647-7706.	Arizona Department of Commerce

	Connecticut Digital Media & Motion Picture Tax Credit 2006	Florida Entertainment Industry Financial Incentive Program 2001 for film, 2008 for games
Who is eligible?	Production companies in Connecticut engaged in productions in which qualified costs exceed \$50,000. No annual and no per-production cap.	Digital Media Projects and Interactive Entertainment productions with minimum qualified expenditures of \$300,000 on a single qualified project.
	··· • • • • • • • • • • • • • • • • • •	Maximum reimbursement is \$1,000,000 per qualified project.
What products qualify?	Any type of entertainment content which is created primarily for distribution or exhibition to the general public. Interactive games, video games, commercials, infomercials, and any format of digital media, including interactive websites.	A production of interactive entertainment which is produced for distribution in commercial or educational markets, including a video game, simulation or animation, or a production intended for internet or wireless distribution.
What is the incentive?	 Tax credit: Up to 30% of qualified digital media and motion picture production, pre-production and post production expenses incurred in Connecticut. \$15M on individual salary r payment to loan-out. Effective January 1, 2009, only 50% of eligible costs actually incurred outside of Connecticut qualify. Expires after January 1, 2012. Hotel Tax Exemption: Waived after beyond 30 days. Sales Tax Exemption: Sound Recording equipment for use in the state for commercial entertainment. 	Refundable Tax Credit: 10% cash rebate on payments to Florida residents in the form of salary, wages, or other compensation up to a maximum of \$200,000.
What expenditures qualify?	Any pre-production, production and post-production expenses incurred in the state, as long as qualified costs exceed \$50,000.	Wages or salaries paid to Florida residents for working on a single qualified digital media project, up to a maximum of \$200,000 in wages or salaries per resident.
Additional information	Connecticut Commission on Culture & Tourism	Florida Governor's Office of Film & Entertainment

	Georgia Entertainment Industry Investment Act	Hawaii Motion Picture, Digital Media and Film	Indiana Media Production Expenditure Tax Credit
	2008	Production Income Tax Credit 2006	July 2008
Who is eligible?	Georgia-based and non-Georgia-based production companies that spend a minimum of \$500,000 in the state on qualified production expenditures in a single year.	Production companies producing qualified digital media project that has qualified production costs totaling at least \$200,000.	Production company that spend a minimum of \$50,000 on a single production.
What products qualify?	Original entertainment content creation including animation, interactive entertainment and video game development. Wages limited to \$500,000 a year.	Productions of interactive games.	Digital media productions intended for reasonable commercial exploitation.
What is the incentive?	 Tax Credits: 20% flat tax credit on qualified expenditures. Additional 10% tax credit if production company included a Georgia promotional logo in the qualified finished video game project. Sales and Use Tax Exemption: Up to 8% point-of-purchase exemption on most purchase and rentals in the state. 	Tax Credit: 15% of qualified production costs on Oahu, and 20% on the neighbor islands (Hawaii, Kauai, Lanai, Maui, Molokai)	Refundable Tax Credit:Up to 15% of qualified investment in aqualified media production project. RefundCap is \$5M in any one year.Sales Tax Exemption:Acquisitions of tangible personal propertyare exempt from state gross retail tax ifacquired for use in a qualified mediaproduction. May not be used in combinationwith Media Production Expenditure TaxCredit.Lodging Tax Exemption:After 30 days.
What expenditures qualify?	Expenditures on editing, animation, coding, special effects, sound and other costs generated while creating an entertainment product distributed commercially outside of Georgia.	Standard costs incurred during production incurred in Hawaii and subject to its general excise or state income tax. Includes cast and crew wages, equipment rentals, lodging, transportation, location fees, airfare.	Any expense incurred in IN or direct production expenditure made in IN including wages, salaries and benefits of IN residents; services; facilities and equipment rentals; and food and lodging among others.
Additional information			Film Indiana

	Louisiana Louisiana Digital Media Act 2005	Maine Certified Media Production Income Tax Credit and Media Wage Reimbursement 2006	Massachusetts Massachusetts Film Tax Credit 2006, Updated in 2007
Who is eligible?	Videogame developers, animation and digital effects.	Production companies that incur \$250,000 or more on production related expenses in Maine within a 12-month consecutive period.	Motion picture production companies.
What products qualify?	Digital media projects (or parts thereof) that is intended for commercial use or distribution, must be capable of being distributed over electronic media, involved electronic interactivity, includes multiple data types (text, sound, fixed images, animated images and 3-d geometry).	Interactive computer or video game or other program intended for a national audience and fixed on a delivery medium that can be viewed or reproduced.	Digital media project where at least half of the production budget is spent in MA.
What is the incentive?	Tax Credit: 20% of expenditures for first two years, then drops to 15% for years 3 and 4, then drops to 10% for years 5 and 6.	Tax Credit:Non-refundable credit equal to the Maineincome tax otherwise due on taxable incomerelated to the certified media production.Wage Reimbursement:12% of wages paid to employees who are	Sales Tax Exemption: 100% sales tax exemption for 12 months for companies incurring total MA production expenses of at least \$50,000 in a 12 month period. Tax Credit:
		residents of Maine and 10% of wages to nonresidents.	25% of all qualified spending in MA. Can be taken as a direct rebate at 90% of the face value, or can be sold at market rate.
What expenditures qualify?	Expenditures for production and long- term infrastructure in Louisiana for videogame developers, animation and digital effects.	Expenses directly incurred during the creation of a media production including wages, salaries, commissions and other forms of remuneration.	Production expenses clearly incurred in MA and labor for persons with salaries up to \$1,000,000 who are subject to MA personal income tax (nonresident labor qualifies but excludes some benefits).
Additional information		Maine Film Office	Massachusetts Film Office

	Michigan Film Production Incentive	New Jersey Edison Innovation Digital Media Tax Credit Program	New Mexico New Mexico Taxation and Revenue
	2008	2006	Department Film Production Tax Credit 2002
Who is eligible?	Production companies with at least \$50,000 in expenditures in Michigan.	A company that has at least \$2 million of qualified content production expenditures, including 60% of such expenses being associated with digital media salaries of new full-time employees in New Jersey.	Film production companies. No minimum budget or spending requirements.
		Company must create and maintain a minimum of 10 new full-time digital media jobs with a minimum salary of \$65,000 per year. All remaining qualifying full-time employees must be paid at least \$36,000 per year.	
What products qualify?	Media entertainment project	Any data or information that is produced in digital form, including data or information created in analog form but reformatted in digital form, text, graphics, photographs, animation, sounds and video content.	A single or multimedia program that is fixed on film, digital medium, videotape, computer disc, laser disc or other similar delivery medium, that can be reproduced and is intended for reasonable commercial exploitation.
What is the incentive?	Tax Credit: 40% on all Michigan expenditures. An additional 2% if filming in one of the 103 core communities in Michigan.	Tax Credit: Up to 20% for qualified digital media content production expenses. Hotel Tax Rebate: On lodging taxes paid after 14 days.	Refundable Tax Credit: 25% of all production expenditures (including New Mexico labor) that are subject to taxation by the State of New Mexico.
What expenditures qualify?	Any direct production expenditure that is made in Michigan, not a qualified personnel expenditure and directly attributable to the production or distribution of a "qualified production."	Wages and salaries of individuals employed in the production of digital media content, costs of computer hardware and software, data procession, visualization technologies, sound synchronization, editing, and the rental of facilities and equipment.	Direct production expenditures. Includes all expenditures subject to taxation in New Mexico.
Additional information	Michigan Film Office	Edison Innovation Digital Media Tax Credit Program web: www.njeda.com/DigitalMedia.	New Mexico State Film Office

	Rhode Island Motion Picture Production Company Tax Credits	Tennessee Visual Content Act of 2006
	2008	2006
Who is eligible?	Video game productions primarily produced in Rhode Island with a minimum budget of \$300,000.	Companies headquartered outside the state with a production budget of at least \$500,000, or companies headquartered in TN with a production budget of \$200,000.
What products qualify?	A "motion picture" including video and video games made in Rhode Island for theatrical or television viewing or as a television pilot.	Qualified producers of visual and media content.
What is the incentive?	Tax Credit: Up to 25% for all Rhode Island spending.	 Tax Rebates: -13% of "Below the line" costs. -An additional 2% if 25% of the productions cast and crew are hired in TN. -An additional 2% if production spends \$20,000 in post-production for the use of music created by Tennesseans. Legislation caps all rebates to \$10 million. Expense refund: Companies headquartered in TN with \$1 million in qualified expenses eligible up to 15% refund of companies' qualified expenses.
What expenditures qualify?	Any direct pre-production, production and post-production cost. Includes personnel expenses.	Expenditures incurred in TN on services, equipment and TN personnel. Eligible salary and fees are capped at \$100,000 for each function.
Additional information	Rhode Island Film & TV Office	Tennessee Film, Entertainment and Music Commission

	Texas Texas Moving Image Industry Incentive Program 2007	Wisconsin Wisconsin Film Tax Credit Program Updated in 2008
Who is eligible?	Video Game Developers with a minimum of \$100,000 in TX. Production must have 60% of production days completed in TX and 70% of paid employees and contract labor must be Texas residents.	Companies that create electronic games.
What products qualify?	Computer games, console games, online games, handheld games, mobile games or other software intended for commercial publication.	Electronic games with at least \$50,000 in salaries and wage expenses.
What is the incentive?	 Incentive Payments: Equal to 5 % of TX spending. Possible bonus of 2.5 % if 25% of production completed in underutilized area. Sales Tax Exemption: Items and services necessary and essential to production and not retained for other use. Includes qualified purchases, rentals or leases, and qualified services performed during development. 	 Production Services Credit: Tax credits for salary and wages of Wisconsin residents, production expenditures and sales tax. -25% of salary wages paid to WI residents. (maximum of \$25K per employee, two highest paid employees are not eligible). -25% refundable credit on production expenditures. -5% sales tax credit on the purchases of tangible property and taxable services. Investment Tax Credit: 15% on expenditures for tangible personal property and for the purchase, construction, rehabilitation, remodeling or repair of real property used for film production.
What expenditures qualify?	Items or services that are necessary and essential to the making of the production, and are used directly and exclusively in production and postproduction. Items used indirectly in production (such as office supplies, accounting software, and soft drinks) are not exempt. Items are tax-exempt only if they are used exclusively in production and not retained for other use.	Salaries or wages paid to WI residents, production expenditures, and WI sales tax.
Additional information	Texas Film Commission	Film Wisconsin

	Manitoba	Nova Scotia
	Interactive Digital Media Tax Credit 2008	Nova Scotia Digital Media Tax Credit 2007, Updated in 2008
Who is eligible?	Taxable Canadian Corporation that develops an eligible product at a permanent establishment in Manitoba.	Taxable Canadian Corporation that develops an eligible product at a permanent establishment in Nova Scotia.
	Must be incorporated in Canada, but can be Canadian or foreign owned. At least 25% of salaries and wages paid by cooperation during the project period must be to Manitoba residents. Tax exempt corporations are not eligible.	Must be incorporated in Canada, but can be Canadian or foreign owned.Labor-sponsored venture capital corporations and tax exempt corporations are excluded.
What products qualify?	Product must be developed for sale or licensing to arm's-length parties and the primary purpose of the product must be to interactivity education, inform or entertain by way of sound, text and/or images.	Primary purpose must be to interactively education, inform or entertain by presenting information in at least two of three formats: text, sound or images.
What is the incentive?	Refundable Tax Credit: 40% refundable income tax credit for eligible labor costs paid to Manitobans up to \$500,000 per project.	Refundable Tax Credit: Equal to the lesser of 50% of eligible labor expenditures or 25% of total expenditures made in Nova Scotia.
		A 10% geographic area bonus on labor expenditures (or 5% on total expenditures) for productions developed outside the Halifax regional municipality.
What expenditures	100% of eligible salary and wages paid to Manitoba residents and directly attributable to the product.	100% of eligible salary and wages paid to Nova Scotia residents.
qualify?	65% of remuneration paid to arm's length persons who are not employees.	65% of remuneration paid to arm's length persons who are not employees.
	20% of the above for remuneration paid to non-Manitoba residents who work on the project if they train at least one other person.	Marketing and distribution expenditures to a maximum of \$100,000 per eligible product.
Additional information		Nova Scotia Department of Finance www.gov.ns.ca

	Ontario Interactive Digital Media Tax Credit Next Generation of Jobs Fund 1999, updated in 2006	Prince Edward Island PEI Innovation and Development Tax Credit Specialty Labour Tax Credit Specialty Labour Tax Credit 2004 Corporation with a permanent establishment in PEI that develops new or innovative products or services within a "strategic industrial sector" (see below for definition). Can be Canadian- or foreign-owned or a branch of a foreign corporation.			
Who is eligible?	Canadian corporation that develops an eligible product at a permanent establishment in Ontario. Must be incorporated in Canada, but can be Canadian- or foreign-owned. Labor-sponsored venture capital corporations and tax exempt				
What products qualify?	corporations are excluded.Eligible products include interactive digital media productwhose primary purpose is to interactivity education, inform orentertaining via at least two of text, sound or images.Specified products are the same but developed under aqualified fee-for-service arrangement.	Creation/improvements to an approved concept, product, process or service with a view to commercialization.			
What is the incentive?	Refundable Tax credit : 40% of eligible labor expenditures and eligible marketing and distribution for qualifying corporations. Corporations applying for specific products receive a 35% refundable tax credit. Applies to expenditures incurred before January 2012.	 Refundable Labor Rebate: 35% of eligible labor expenditures factored up by 50% to cover project overhead for projects approved in advance by PEI Business Development Inc. 17% for certified specialized workers brought into the province to meet specific demands in key sectors. 			
What expenditures qualify?	100% of eligible salary and wages paid to Ontario residents and directly attributable to the product.	100% of eligible salary and wages paid to full time employees who are PEI residents. Salary paid to a related party eligible for a maximum of \$40,000.			
Additional information	Ontario Media Development Corporation www.omdc.oh.ca				

	Quebec Refundable Tax Credit for the Production of Multimedia Titles credit 2006, Updated in 2007					
Who is eligible?	Corporation that develops an eligible product at a permanent establishment in Quebec.					
	Can be Canadian- or foreign-owned or a branch of a foreign corporation.					
	Labor-sponsored venture capital corporations Crown corporations and tax exempt corporations are excluded.					
What products qualify?	Multimedia titles created for commercial use, including custom products.					
	Must be produced on electronic media, controlled by software that allows interactivity and includes, in significant proportions, three of text, sound, fixed images and animated images.					
What is the	Refundable Tax Credit:					
incentive?	 37.5% for titles produced without having been ordered, are intended to be commercialized, and are available in French. 30% for such titles that are not available in French. 					
	- 26.25% for other titles.					
What expenditures	100% of eligible salary and wages paid related to eligible activities.					
qualify?	50% of remuneration paid to arm's length subcontractors in Quebec.					
Additional information						

	Total Talent		Concentration of Talent			Cost of	Cost of	
	Computer Programmers	Multimedia Artists	Computer Programmers	Multimedia Artists	Educational Institutions	Living Housing Index	Business Avg. Labor Cost	State Tax Incentives
Competing Regions								
Tier 1								
Seattle	44,860	1,350	3.3	4.0	11	152	\$89,380	Yes
San Jose	50,230	520	5.8	2.4	3	275	\$104,930	No
San Francisco	20,720	1,500	2.2	6.3	6	275	\$89,010	No
Tier 2								
Los Angeles	35,040	6,260	0.9	6.5	15	228	\$78,640	No
Austin	18,340	400	2.5	2.2	4	74	\$81,800	Yes
Boston	41,820	720	2.6	1.8	7	144	\$83,290	Yes
Tier 3								
Chicago	45,970	770	1.3	0.9	9	135	\$78,130	No
New York	63,050	3,370	1.3	2.8	11	403	\$78,650	No
Dallas	39,460	740	2.0	1.5	7	72	\$80,400	Yes
Tier 4								
Atlanta	24,190	460	1.1	0.8	5	89	\$74,970	Yes
Salt Lake City	10,650	230	1.8	1.6	2	104	\$76,410	No
Minneapolis	24,710	740	1.5	1.8	5	121	\$68,180	No

APPENDIX B. COMPETITIVENESS INDICATORS

Source: gamedevmap.com, Bureau of Labor Statistics, Council for Community and Economic Research, Entertainment Software Association, various state government websites, enterpriseSeattle, Community Attributes