



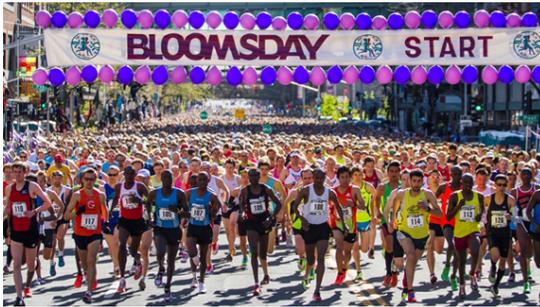
## LEGISLATIVE COMMITTEE ON ECONOMIC DEVELOPMENT & INTERNATIONAL RELATIONS

LT. GOVERNOR BRAD OWEN, CHAIR

### 2015 IN REVIEW

#### EXECUTIVE SUMMARY

Participant and spectator sports are drawing big crowds to some regions of Washington, helping to stimulate local economies with new tourism dollars. And while the aerospace industry remains strong in the state, an increasing number of Washington companies are entering the business of outer space to create a new economic force of its own. The Legislative Committee on Economic Development and International Relations met to learn more about both topics in 2015, hearing from a slate of experts and gaining new insights on their respective contributions to the state's economy as a whole.



The bipartisan study committee, chaired by Lt. Governor Brad Owen, convened in Spokane on Sept. 2 for its first session. Spokane is a city that has become famous for events like the annual Lilac Bloomsday Run, a 12k event that has drawn upwards of 60,000 runners and walkers, and the Hoopfest three-on-three basketball tourney that takes over the downtown core for two days each June and also draws thousands. The city also is home to the popular

Spokane Indians baseball team and the Spokane Chiefs hockey team. Presenters from both sides of the Cascades focused on reasons behind their successes and shared strategies they feel are needed to encourage more statewide growth.

For its Dec. 10 session, the committee had as its backdrop the Museum of Flight in Seattle, located along Boeing Field and encompassing the historic "Red Barn" where some of the Boeing Company's earliest aircraft were built. The museum is also permanent home to the Space Shuttle Trainer, the temporary home of the Apollo 7 space capsule and houses numerous other space-related exhibits. In making his decision to explore the space industry, Lt. Governor Owen felt the committee should be aware that Washington is not only base to some of the most leading-edge space companies in the nation, but also boasts a portfolio of smaller companies that support the industry. With the ongoing transfer of many space-related activities from NASA to the private sector, it appears that Washington is in a solid position to invest and grow in the outer space sector.



**Note:** Presentations and links to specific segments of these meetings are available on the Lt. Governor's website at [ltgov.wa.gov](http://ltgov.wa.gov). Look under the "Legislative" tab to navigate to the LCEDIR section.

# MULTIMILLION DOLLAR IMPACT OF LOCAL SPORTING EVENTS ON WASHINGTON'S ECONOMY

September 2

Spokane Veterans Memorial Arena

**Committee members and local legislators in attendance:** Lt. Governor Brad Owen, Rep. Sharon Wylie, Rep. J.T. Wilcox, Sen. Mike Hewitt, Sen. Bob Hasegawa, Sen. Curtis King, Sen. Judy Warnick, Sen. Andy Billig, and Sen. Mike Padden.

The committee was welcomed by Spokane Mayor David Condon.

## Overview

Local sporting events are increasing in their importance as part of the economic backbone in communities across Washington, the committee learned. Whether it be from the crack of a baseball bat, a frenzy of hockey players swinging sticks while skating wildly on ice; a three-on-three basketball tourney covering several city blocks; or the sight of thousands of runners pounding pavement along a 12k, these events draw both participants and 'new' dollars from out of town, as well as bolster community spirit and pride.

The City of Spokane is one community that thrives from such activities. With events like the Bloomsday fun run, Hoopfest, and Spokane Indians baseball, the city has found a special niche in both participatory and event sports. Not only is Spokane benefiting from the growth of local sports, but many other communities in Washington are experiencing similar outcomes. The purpose of this session of the LCEDIR was to examine such impacts by hearing from expert presenters who help organize and promote these events within their regions.

## The State of Sports Tourism for Snohomish & Pierce County

First in the lineup were two presenters involved with sports activities in Washington's second and third most populated counties, Pierce and Snohomish. Tammy Dunn, the sports development manager for the Snohomish County Sports Commission, emphasized the importance of building key relationships with different sporting organizations to help bring in the sporting events. This provides a positive economic impact. The commission has found that an influx of tourist dollars comes with bringing more sporting events to Snohomish County. The county has three professional sports teams: Everett AquaSox and Everett Merchants baseball and Everett Silvertips hockey. The county also has the Evergreen Speedway in Monroe, a regional tourist draw; several collegiate sports teams, numerous high-draw participatory sports events and sports facilities like the Bottega Fitness Park and Cavalero Hill County Park.



Dunn noted that the economic impact from sports tourism comes in many forms. It includes spending on multiple means of transportation, lodging, entertainment, shopping and meals in restaurants. This all leads to steady wages, profits and taxes within the communities where the sports take place. Dunn presented figures that show the total impact of sports tourism for Snohomish County from 93 sporting events was more than \$124 million between 2007 and 2014.

Dean Burke, executive director of the Tacoma South Sound Sports Commission, spoke of the different sporting events that

his organization brings into that region, with a special focus on amateur sports. Founded in 1991, the organization works to bring in events that attract touring visitors to local hotels and contribute the regional economy. Lodging taxes play a key role in the organization's success.

Burke said the sports commission was involved in 48 separate events in 2014 alone, which drew a total of 206,662 visitors, 16,898 room nights and \$14.9 million in direct spending for the region.



As an example of one successful event Burke detailed the region's hosting of professional cyclo-cross races at the Marymount Event Center and Fort Steilacoom Park. Cyclo-cross is an increasingly popular form of bicycle racing where competitors use lightweight bikes with narrow tires, similar to road racing bikes, to race on courses of dirt and mud. A two-day event in late 2014 drew 1,023 riders, 41 percent of whom traveled from other areas to compete. A three-day gymnastics event drew 2,019 athletes, 54 percent of whom traveled from outside of the area to compete. The South Sound is also popular with mountain bikers, paddle boarders, wrestlers and other sports participants at several different venues.

Burke also advocated for the need to have a better relationship on the state level. He said capital funding would help sports venue development, including updates for aging sports venues, assistance with land procurement and enhancements for existing venues.

## **The Success of the Sports Industry in Spokane**

Five presenters from Spokane discussed the economic impact of sports in the Lilac City. Since 1989, over \$920 million in direct tourism spending has been made through sporting events in Spokane, explained Eric Sawyer, president and CEO of the Spokane Sports Commission. An estimated \$30 to \$40 million is brought in annually through sports-related events, representing 50,000 hotel stays. Spokane's coveted reputation for hosting sporting events is built on a mixture of amateur and professional sports, merchandise sales and sports travel. Governing bodies like the NCAA work with the Sports Commission to host events in Spokane. The 2007 U.S. Figure Skating Championship was the biggest sports event hosted in Spokane history, setting an attendance record with nearly 155,000 tickets sold.



A key reason for wanting to host such large sporting events is for the media coverage and the money that is generated through sports travel. An estimated 25 million Americans travel each year, and 27 percent of all trips are sports related.

Even though the sports industry in Spokane is growing, it also faces challenges. The main one is addressing the increasing demand for youth and amateur sports facilities. The demand for sports club use is increasing more than the number of facilities that are available. Sawyer said he is optimistic that this challenge can be addressed through grants by the state's Recreation and Conservation Office for more youth athletic fields, the state's Capital Budget and by giving parks departments and nonprofits the incentives they need to develop facilities and social impact bonds. The state also needs to encourage institutional partnerships.

## **The Lilac Bloomsday Run**

The Lilac Bloomsday Run started in 1977 and has achieved inordinate success in the community, attracting upwards of 50,000 registrants most years with a peak of 61,298 runners in 1996. It is the second largest road race in the United States (after the Bay to Breakers run in San Francisco).



Race Director Don Kardong told the committee that people from all over the country and even people who live outside of the U.S. come to participate in the road race. The Bloomsday mission is to promote national and international sports competition and fitness education for the civic betterment, social improvement, and physical well-being of the general public. The economic impact of this event is very important for the community. In 2015 the race brought in nearly \$13 million.



## How Marketing Supports Sporting Events in Spokane

Visit Spokane is a destination marketing organization that works to promote visitors to Spokane. Cheryl Kilday, president and CEO of Visit Spokane, stated in her presentation that Spokane receives 3 million visitors annually and in 2014 an estimated \$993 million was spent by visitors. The organization partners with the sports commission to help fans and spectators find other activities to do in the community besides the sporting events. The Visit Spokane website helps people plan their trips to the city and also helps guide them to their favorite sporting events. These marketing strategies

help the growth of tourism in Spokane, which also positively impacts the attendance of the sporting events, thus making the economy stronger.

## Spokane Hoopfest and its Impact on the Community

Hoopfest is the world's largest 3-on-3 basketball tournament, held over a weekend each June in downtown Spokane. Matt Santangelo, executive director for Hoopfest, explained that when Hoopfest first began in 1990 there were 512 teams. This year there were over 6,500 teams, more than 3,000 volunteers and over 225,000 attendees and spectators. Hoopfest organizers calculate that 53 percent of the people traveling, to either participate or observe, were from other states.



Hoopfest brought in an estimated \$46 million to Spokane businesses in 2015. It also instills community pride and goodwill. To date, Hoopfest has donated over \$1.6 million to community basketball court projects and charitable organizations. The Midnight Basketball Association is one of Hoopfest's outreach programs for children in 6th to 8th grade. Its goal is to "strengthen participants' character, self-esteem and discipline so they are better equipped and prepared for the challenges of their teen years and beyond."



## The Positive Impact of Minor League Sports Teams for Spokane

Presenter Bobby Brett, whose background is in real estate investment, owns two minor league sports franchises in Spokane: the Spokane Indians baseball team and the Spokane Chiefs hockey club. He said the games offer a fun venue for the entire community and, with the abundant crowd turnout, benefits the local economy as well. The Indians attract 190,000 fans each year, with additional

revenues coming from televised broadcasts of eight to 10 away games each year, radio and other media. He said families from out of town also come to the games, helping to fill local hotel rooms and taking advantage of inexpensive flights. Brett urged the committee to do more to help fund improvements to local sports facilities that are used by youth baseball teams as a way of encouraging more participation. The city attracts 90 baseball

teams each July for the Indian's "Best in the Northwest" youth baseball tournament.

Members of LCEDIR were able to attend the Indian's baseball game the night before the committee meeting to see the local popularity of the sport for themselves.

## **POLICY CONSIDERATIONS AND SUGGESTIONS FROM PRESENTERS**

1. Support a state-wide tourism effort in three ways: a.) position Washington as a sports-friendly state; b.) Help communities develop sports marketing strategies and c.) Provide a public relations focus on fan opportunities.
2. Create a shared vision for sports marketing.
3. Provide state-level capital funding sources specific to sports venue development. These would include improvements to aging venue updates, land procurement and enhancements to existing venues.
4. Address the growing demand for youth and amateur sports facilities brought by several factors: The growth of "club" sports; the rising gender equity in sports (54 percent of girls are now active in organized sport); a limited and restricted access to school facilities; public investment has not kept pace.
5. Increase youth athletic field grants from the Washington State Recreation and Conservation Office (RCO).
6. Encourage Public Facilities Districts for sports facility development.
7. Develop "Social Impact Bonds" to provide working capital to pay for investments in sports and sporting activities.

# STATE OF THE SPACE INDUSTRY IN WASHINGTON STATE

December 10

Museum of Flight, Seattle

**Committee members and local legislators in attendance:** Lt. Governor Brad Owen, Sen. Randi Becker, Sen. Karen Fraser, Sen. Bob Hasegawa, Sen. Mike Hewitt, Sen. Curtis King, Rep. J.T. Wilcox, Sen. Maralyn Chase and Sen. Karen Keiser.

## Overview

Washington has long been known as a hub for aerospace. In addition to The Boeing Company, the state now has more than 1,300 companies in Washington that are part of the aerospace industry, with a tremendous economic impact measured in both jobs and dollars generated. The purpose of this meeting was for the committee to look at the economic impact of companies that work in outer space, which is the fast-growing subset of the industry as a whole.

The outer space industry is anchored by well-known companies like Boeing, Aerojet Rocketdyne, Vulcan Aerospace, Blue Origin and Planetary Resources, but also includes numerous smaller companies that supply both parts and technologies for spacecraft and space exploration. There are about 30 companies in the state that contribute to the space industry that in sum employ more than 1,700 people. That number is expected to grow by about 13 percent, or 233 people, over the next year, according to a survey by the *Washington Space Coalition*.



## Aerospace Now at a Tipping Point

First to present was Douglas King, the president and CEO of the Museum of Flight since 2011. King previously served for 15 years as president of the Saint Louis Science Center and was also the president of the Challenger Center for Space Science Education.



Noting Washington's decades-long experience in an industry that took root here well before astronauts ever ventured into space, King said aerospace is now at a tipping point in history. The industry has evolved from its introduction 112 years ago when the Wright Brothers first launched their *Wright Flyer* at Kitty Hawk, to where airplanes have since changed the world by transforming the way we view travel and international relations. With 25,000 flights daily across the world, only planes that do not make it to their destination become news.

The early days of aerospace in western Washington dates back to the mid-1910s, when William Boeing founded the Boeing Company, encouraged by the growing need for aerospace development due to the World War I. Thinking of what will happen in the next century, King said he believes the outer space sector is the beginning of an entirely new industry that will be as revolutionary as the aerospace industry has been in Washington.

King, along with several committee members, pointed to the importance of introducing Science, Technology, Engineering, and Math (or STEM) curricula early in our education system to allow for a talented and competitive workforce. *Washington Aerospace Scholars* is a high school program supported by the Museum of Flight and the University of Washington, offering credits on topics related to the history and future exploration of space. This program has drawn nearly 300 students from around the state, with every legislative district represented. The intent of this program is to inspire high school students to one day choose a career path in the growing space industry, where local companies are increasingly finding a limited homegrown applicant pool and hiring nationally, sometimes internationally, to meet the demand.

## **Aerospace ‘Engine of Washington Economy’**

Presenter Alex Pietsch, the former director of the Washington State Office of Aerospace who is now vice president of industry relations for Washington State University, described the aerospace industry as the engine of Washington’s economy. Washington state is a globally recognized center of innovation and talent, with civic and corporate engagement in the exploration and utilization of space. Roughly 1,350 aerospace-related firms employ nearly 132,500 Washingtonians. Pietsch said the Washington State Space Coalition, with over 30 members, has a mission to build upon the state’s century-old legacy of aerospace innovation and excellence by creating a community in which Washington companies and other entities engaged in the space industry can thrive. There are 35 (out of 39) Washington counties represented in some capacity in the space industry.



The committee viewed a video of a historic rocket landing of the New Shepard launched by Jeff Bezos’ Blue Origin. The video documents the most recent rise and remarkable landing of the New Shepard, which is able to vertically take off and vertically land within five feet of its launch point.

## **Sectors of Washington’s Space Industry**

After learning about the background and overall impacts of the space industry in Washington, the LCEDIR panelists heard testimonials from large and small companies that have a major impact on some of the different space sectors. Communication, machining, tourism, mining, optics, pyrotechnics, consulting, satellites, fabrication, engineering and propulsion are just a few of the different areas of space businesses in Washington.

## **Aerojet Rocketdyne Supplies Propulsion Systems to Space Industry Worldwide**

Roger Myers, the executive director of in-space programs at Aerojet Rocketdyne, was the first corporate presenter. A Sacramento-based defense and aerospace company with a location in Redmond, Aerojet Rocketdyne was founded in 1968 as a rocket research company. The company’s expanding operations in Redmond employ 500 and supplies space propulsion systems to entities worldwide. Its workforce is comprised of 45 percent engineers and 25 percent highly skilled technicians. The company has produced over 15,000 flight rocket engines ranging from large to very small, with 90 percent of NASA spacecraft’s now using rocket propulsion systems from Washington.



Myers explained that communications satellites are a growing sector in the commercial space industry, particularly with civil applications. Technology Aerojet Rocketdyne has created has reached every planet in the solar system. The company’s technology has even propelled spacecraft beyond our solar system. Satellites powered by Aerojet Rocketdyne systems are used daily by millions for weather prediction, data and image transmission, banking and Global Positioning Services (GPS).

The innovation at Aerojet Rocketdyne allows for unique partnerships and the creation of groundbreaking technologies, from 3-D printed propulsion systems to green (environmentally friendly) rocket fuel. Recently delivered was the United States' first non-toxic propulsion system to NASA. Aerojet Rocketdyne is involved in local communities and inspires new generations of STEM students. The company provides scholarships and educational rocket programs supportive of Raisbeck Aviation High School, Washington's flagship universities and the Museum of Flight, to promote a wide range of STEM education and activities.



Others involved with the space industry agreed with Myers as he explained the difficulty in the restrictive nature of some contracts to find U.S. jobs in a globally competitive industry. Contracts with military and the federal Department of Defense place restrictions on the company's ability to hire engineers and scientists from outside the United States, giving way for a greater need for programs, training and opportunities for growth within Washington.



### **Janicki Inc. Specializes in Tools, Prototypes and Parts**

In his role as vice president of military sales for Janicki Industries in Sedro Woolley, presenter Rich McCabe is responsible for business development and sales in space and military markets. He provided the committee with an overview of the company's contributions to the space industry.

Janicki is a supplier of engineering composite and metal tools, prototypes and parts. The privately owned contract engineering and manufacturing company specializes in composite and metal fabrication with large scale-precision capabilities producing parts and tools primarily in the aero structures market. Janicki competes for bids from original equipment manufacturers and services aero structures with a large plant in western Washington with about 650 employees, 125 of which are engineers.

To support the composite industry, Janicki fabricates its own metal tooling and equipment, and designs and builds all of its own mills. The mills use some of the largest five-axis machining in the world. Highly customized work by Janicki is behind projects for Boeing, Vulcan, SpaceX and NASA's Mars Science Laboratory and Orion Spacecraft. Janicki has a composite research and development laboratory, used for product advancement, program support, and to develop ideas for the Janicki engineering team. McCabe said Janicki moved its location to Washington to be closer to company suppliers, customers and original equipment manufacturers, and would consider moving to other states because the original equipment manufacturers are moving.



### **Small Company Has Long History Making Parts for Aerospace**

Hobart Machined Products is a company based in the Maple Valley area that specializes in highly engineered parts for both aerospace and outer space. The company employs 10 at its manufacturing facilities in Hobart and Ellensburg. CEO and President Rosemary Brester gave a personal testimonial about the ups and downs of the business she co-founded with her husband in 1978.

She said the Hobart group works nationally and internationally on many different space projects including specialized parts for NASA, Boeing, and their first customer in 1980, Olin-Aerojet (now Aerojet Rocketdyne). The projects can range from short to long-term. As an example, the company recently took just 10 days to create a highly specialized component. It has a contract with Boeing Defense, Space and Security Division being one of its longest customers. All customers and employees of Hobart Machined Products have non-disclosure agreements, making Hobart's current projects confidential at the time of the meeting.

Brester explained the space-industry is a low-volume, capital-intensive industry and is a very competitive and costly sector of aerospace. She stated it is critical to maintain the base Hobart has and grow it. Through the decades Hobart has transitioned from machine parts to critical assemblies to space launches to national



security. The standardization of products and risk management for human transportation have been the most recent focus and strategy in the outer space industry for Hobart. Since 2007 and at the request of NASA, Brester has been a participating member of the National Space Supplier Council, reporting to national senior defense sponsors at the Department of Defense.

She said she receives frequent offers to move her business outside of Washington, but, to this point, has turned them down due to a proximity of demand for the company's products. Other states can seem to have more attractive business climates, with lower property taxes and additional tax incentives. Ensuring that the state's foremost companies, like Boeing, remain in Washington helps to keep smaller space companies based here. Brester emphasized that some of the projects Hobart works on are funded by the federal government and are dependent upon renewed budgets resulting in a loss of engineers when projects are on the fence.

Education was a common theme and a top priority in many of the presenters' suggestions to the LCEDIR panel. Brester said Hobart selects two Raisbeck Aviation High School students for a summer internship, hoping to inspire students to stick with a STEM degree in their pursuit of higher education and give the interns direct experience in their field. Hobart currently has four interns in college, and two who are high school seniors. One of these interns, Haley Johnston, co-presented with Brester. Johnston spoke about her opportunities and experiences working for Hobart. Johnston is continuing her internship as a senior and will pursue an engineering track as she applies for college. Brester explained internships and specialized degree in aerospace fields are not enough for her company, that there are unique technical skills, like gear cutting and splicing that are no longer taught. Finding technicians for these highly specialized skills has proven to be difficult, she said.

### **Space Angels Network Finances Space and Aviation Ventures**

Space Angels Network is a Seattle-based global private investor group focused on financing early-stage commercial space and aviation companies. The company anticipates that 2015 will have been the network's largest year of private investment into the commercial space industry.

Joe Landon, chairman of the board, noted this is the only member network focused on space investment growing with over 110 individual global investors in 29 companies over the last eight years. The internal rate of return investment for the network is about 30 percent. Historically, investing in space exploration was only done federally, though programs like NASA or the Department of Defense. Now more funding is coming from private investors.

One of Landon's goals for the Space Angels Network is to make space investing, in new space-related companies, for non-space experts both easy and accessible through its online presence. The network has reviewed hundreds of new space startups looking for outside capital, but only 10 percent have satisfied their investment criteria. Millions of dollars have been allocated to found or fund companies by Space Angel members, including an asteroid mining firm, Planetary Resources based in Redmond, and hybrid technology innovators Planetary Power, also Redmond-based.

Investors with Space Angels have the opportunity to look beyond satellites and rocket launches as the only sectors of investment. Current market trends show hardware and infrastructure in space is declining, and the value of data and information that is generated by companies is becoming more valuable. The Space Angels Network and members view Washington as a hub for the commercial space industry based on the

technology talent, a critical mass of companies and financial power. With software and data trending over hardware, attracting the talent and skills of Washington is drawing investors and entrepreneurs alike. Landon told the committee that Washington needs to build upon a self-sustaining community of companies to support each other, like the *Washington State Space Coalition*. Lastly, sizable investments from the likes of anchor investors Charles Simonyi, Bill Gates, Jeff Bezos and Paul Allen have established Washington as a place to invest in the space industry and attracted additional smaller investors to follow suit.



## **POLICY CONSIDERATIONS AND SUGGESTIONS FROM PRESENTERS**

1. Increase emphasis on Science, Technology, Engineering and Math (STEM) disciplines throughout the education process, starting early so that Washington students can compete globally.
2. Support the growth of established companies by expanding aerospace tax incentives to include space commercial and military activity. Create investment tax credits and incentives to fund early stage companies.
3. Foster the creation of new companies and increase industry and university research collaborations. Find ways to leverage federal research funding.
4. Build awareness of the outer space industries that are developing in Washington, especially as they relate to machining, tourism, mining, optics, pyrotechnics, consulting, satellites, fabrication, engineering and propulsion. This can be accomplished in part by creating a network of business leaders, experienced engineers, graduates, machinists, trained technicians, metal and composite fabrications, machine and robotic workers.
5. Develop, educate and retain a highly skilled space workforce by ensuring adequate funding for the expansion of engineering and technical training programs at public colleges, universities and technical colleges. Encourage more partnerships between companies specializing in outer space with these schools to develop more internship opportunities. Such internships provide “real world” experience and training opportunities and help prepare students directly for the workforce.
6. Develop incentives for hiring Washington state residents and encourage companies to pay a competitive starting wage (one presenter suggested \$20 per hour in one specific field) to attract and retain employees in the industry.
7. Continue to address ways to help the outer space industry meet federal, state environmental and other regulatory requirements without being overly cumbersome, complex or cost prohibitive.
8. Support legislation aimed at keeping the outer space industry in Washington competitive with the business environment of other states so that businesses that choose to locate here can do so with solid business justification.