

THE INTERNET OF EVERYTHING

2018 CLARK COUNTY ECONOMIC FORECAST

Sunday, January 21, 2018



2018ECONOMIC FORECAST BREAKFAST PROGRAM

(begins at 7 am, in Heritage Ballroom)

PRESENTED BY:



Aaron Holm

Blokable Inc.

In 2016, Aaron Holm founded Blokable with a mission to make well-designed housing accessible and affordable for consumers, cities and developers by completely reimagining the materials, supply chain and process of traditional construction. By treating

developments and houses like products instead of projects, the company aims to reduce waste in construction, bring housing to markets that need it more quickly and give architects and general contractors the ability to build and scale more efficiently – all while delivering a beautiful, modern home.



Andy Lowery

RealWear

Andy Lowery is co-founder and CEO of RealWear, makers of the HMT-1, the first industrial head-mounted tablet. He has served at the forefront of engineering and operational management in some of the world's most demanding industrial, defense and manufacturing environment making him an authority on the application of technology in industry. Prior to RealWear, Andy held the position of chief engineer for Raytheon's Electronic Warfare Systems business where, under his leadership, he won the U.S. Navy's Next Generation Jammer competition, a program worth an estimated \$8 billion.



Dorota Shortell

Simplexity Product Development

Dorota Shortell is the CEO of Simplexity Product Development, an engineering design firm specializing in the design of hardware such as IoT devices, wearables, smart products, 3D printers and biotech equipment.

Simplexity has been chosen by some of the world's most advanced technology companies as their engineering development partner, including HP, Microsoft, and Illumina. Simplexity has offices in Vancouver, WA, San Diego, the San Francisco Bay Area, and Seattle. In 2017 Simplexity was selected by Inc. Magazine as one of the Best Workplaces in America.



Kevin Getch

Webfor

Webfor's Founder and Director of Digital Strategy started his career in marketing over 15 years ago. He has been quoted and published on leading sites like Forbes, Huffington Post, Search Engine Journal & Mashable.

Kevin serves as President of the board of directors for SEMpdx, a non-profit organization focusing on connecting and educating people in the digital marketing community. He also serves as the Vice Chair for the Greater Vancouver Chamber of Commerce and is a recipient of the Vancouver Business Journal's prestigious Accomplished and Under 40 award.



Moderator

Mei Wu

SmartRG, Inc.

Mei Wu is currently Managing Director at SmartRG, Inc., a Telecommunications software and hardware company that offers a suite of solutions to simplify the

complex home Internet ecosystem for Service Providers. She is a seasoned executive in the software industry, an advisor to start-ups, Ambassador for the Oregon Angel Fund and an investor in several other venture capital funds. Previously, she worked for Fortune 500 firms such as Hewlett-Packard and AT&T Corporation.

Regional Speaker Presented by



Scott Bailey

Washington Regional Economist

Scott Bailey has served as the Regional Economist for the Washington Employment Security Department covering southwest Washington for 27 years. He is our local source

for labor market information for the region, tracking unemployment, industry trends, the occupational outlook and wages and income.

CVTV Video Recording Courtesy of



PeaceHealth

PRESENTED
BY:



EVENT
SPONSORS:



BergerABAM



PeaceHealth

IN-KIND
SUPPORT:



CREDC
ECONOMIC DEVELOPMENT



Internet of Things promises opportunity for Clark County

People crave connectivity, even if they're wary of it

By ERIN MIDDLEWOOD

The Internet of Things already has the power to usher you through your day. You can wake to a personalized chime on a smart phone in the morning and turn off the lights at night through a voice-controlled speaker.

It's easy to see how the Internet of Things — or IoT, the electronic connection of everyday objects — becomes the Internet of Everything as technology reaches into all aspects of life.

Last year, people around the globe used 8.4 billion Internet-connected devices, up 31 percent from 2016, according to Gartner Inc., a Connecticut-based technology research firm. Estimates as to how many we'll be using in 2020 vary, but most projections show three- to five-fold

growth in IoT devices.

In 2017, the Pew Research Center reported that people both crave such heightened connectivity and regard it warily. Even as they find this new level of convenience “magical and even addictive,” as Pew put it, they worry about security vulnerabilities and loss of privacy.

Each IoT device collects data about you, which raises questions about who owns that information and how it should be used, as well as how to secure a diffuse network of devices with intimate access to your daily routines.

In 2016, hackers shut down Twitter, SoundCloud, Spotify, Shopify and other sites by launching an attack through millions of IoT devices. According to a New York Times story about the attack, the Internet of Things can be commandeered

as “a weapon of mass disruption.”

Nonetheless, many express confidence that “human ingenuity and risk-mitigation strategies will make the Internet of Things safer,” and assume “growing connection is inevitable,” according to Pew's report.

Which means, despite the risks, the Internet of Things creates opportunity.

“Regardless of sector, being able to connect to and integrate data to increase the efficiency, accuracy and effectiveness of products, systems and services is rapidly becoming a necessity to meet industry needs and consumer demand,” said Mike Bomar, executive director of the Columbia River Economic Development Council. The nonprofit organization helps companies take root in Clark County.

Bomar said CREDC's economic development plan shows a strong talent base “well-poised to take advantage of the growing need to integrate data into a range of physical products and the delivery of services.”

Consider the breadth presenters at The Columbian's Economic Forecast Breakfast this year. They represent companies that design the “things” in the Internet of Things, make routers for the Wi-Fi that connects those things, create headsets for accessing information online, build the Web sites that connect companies to their customers, and even manufacture modular smart homes that you can order on the Web.

These local experts acknowledge the challenges posed by the Internet of Things, but also see its vast potential.



Photo courtesy of Simplexity

Simplexity helped with the design of Senaptec Strobe eyewear, which helps athletes train to respond faster to visual stimuli.

Internet of Things propels us into Star Trek territory

Innovations will address the privacy, security concerns



Photo courtesy of Simplexity

Simplexity helped with design of the Microsoft band, a fitness tracker.

Multiple companies are starting to offer full IoT development stacks (bundles of pre-developed software solutions). These include embedded firmware components, wireless protocols, Web services, and fleet management tools for deployed embedded devices, which can all be integrated to simplify developing a whole IoT ecosystem.

The location of intensive data processing for IoT devices is beginning to move out of the cloud into edge routers (or home gateways) that serve as a hub for all your IoT devices. More machine learning applications will get pushed to edge routers to reduce data transmission and processing loads on data centers. This may also help address some privacy concerns because processing user data locally reduces the risk of large-scale data leaks and loss of privacy. However, this can run in opposition to some companies' desire to gather large data sets, so it will be interesting to see how it plays out.

Power is still a limitation. Devices are limited by battery size and capacity. Sensor-reading applications are low-power, but if you want to open your blinds with your voice, you need those devices to be plugged in or have large batteries since actuation takes significantly more power than communication. Innovations in wireless power delivery may soon solve that problem. Ossia, one of Simplexity's clients, is developing ways of wirelessly powering all your devices in a

SHORTELL, Page 9

**WE'RE NOT YOUR
ORDINARY PROPERTY
MANAGEMENT COMPANY**

*No one else has everything
you need under one roof.*

TMG The
Family of Companies Management
Group

AMS
Association
Management
Services NW

HOME WORKS
REPAIR SERVICE

TMG
Property
Management
Services NW

TMG
Cares

TMG
MAINTENANCE
SERVICES NW

**INNOVATION
IN PROPERTY MANAGEMENT**

Managing Northwest Real Estate Since 1985

360.892.4000 | 503.598.0552
www.TMGnorthwest.com



Dorota
Shortell

By DOROTA SHORTELL

My company Simplexity Product Development designs "things" in the Internet of Things, also known as IoT.

For example, Nautilus asked for our help in converting their Bowflex SelectTech 560 dumbbells into an IoT device that could track a user's exercises. We helped design Senaptec Strobe eyewear, which helps athletes in sports like basketball and baseball train their brains to respond faster to visual stimuli.

A number of technological advances laid the groundwork for this leap toward Star Trek-like interaction among devices, but challenges remain.

There has been an explosion

in voice recognition and therefore voice control due to advances in deep learning (a type of machine learning that harnesses vast amounts of data and computing resources to avoid tenuous hand development of task-specific algorithms). This vastly simplifies interactions with devices. Using voice commands is a much more intuitive controller than pulling your phone out to send commands with an app.

Deep learning also has enabled standard digital cameras to become true sensors now that they can identify the contents of photos. This gives additional options for designing IoT devices because we can use these low-cost chips from the cell-phone industry.

Expanding Internet of Things demands greater bandwidth

By 2020, number of connected devices may reach 37 billion



Mei Wu

By MEI WU

As our connected world moves from the Internet of Things (IoT) to the broader realm of the Internet of Everything (IoE), the IoT devices we're familiar with today will become even more sophisticated and demand greater processing power.

This ability to connect ever-growing numbers of things on the Internet and to analyze growing amounts of useful data has enormous potential. In particular, economic regions of all sizes will benefit from IoE. It promises increased economic growth and improvements in environmental sustainability, public safety and security, delivery of government services and overall workforce productivity.

But in order to accelerate the adoption rate of IoE and maximize its economic benefits, private and public sectors need to work together on infrastructure planning and deployment. How well cities and municipalities team with technology companies when making plans for all forms of infrastructure – from street access for fiber networks to the standards used for public devices like parking meters – will be critical to

building an efficient, scalable and affordable platform for IoE to thrive.

The Port of Ridgefield's Dark Fiber Project is a notable example of this. The project would provide broadband backbone services that are essential to the economic vitality of Southwest Washington's Discovery Corridor as well as to the rapidly growing population of Ridgefield. This investment would bolster industries including manufacturing and healthcare, as well as Washington State University Vancouver's goal of becoming one of the nation's top 25 public research universities by 2030.

Meanwhile, it's critical that service providers manage the infrastructure and networks that make the IoE connections – from broadband backbone networks to the home and office Wi-Fi network. The Wi-Fi Alliance, a world-wide organization of industry companies dedicated to the adoption and evolution of Wi-Fi globally, notes that more than half of the Internet's traffic traverses Wi-Fi networks.

It's critical that homes and businesses rely on networks, equipment and standards that can scale to accommodate the growth of additional diverse devices and the demand for more bandwidth. The continued growth of more connected devices

– by some estimates 37 billion things by 2020 – will create a network of networks that will grow exponentially. This trend, and the promise of IoE, highlights the importance of standards-based solutions and measurement service so operators, developers and users can enjoy the benefits of IoE.

Vancouver-based SmartRG has been a pioneer in networking technology for over a decade by partnering with Internet service providers to deliver secure, high-bandwidth home and office networks to millions of users. SmartRG's forward-thinking approach to innovation, design and quality has enabled its customers to keep up with the demands of its subscribers.

SmartRG's suite of hardware products and software solutions, such as its Home Analytics service, leads the industry in helping service providers optimize the home and office Wi-Fi network in order for IoE to thrive in the modern connected home.

Mei Wu is managing director at SmartRG Inc.



Photos courtesy of SmartRG Inc.

SmartRG's Corona SR900ac is its latest broadband gateway and the first based on Intel technology. It's specifically designed to handle the increase in the number of connected devices for the modern home.

Your heart is in the right place



One more reason to love Vancouver: comprehensive heart services when and where you need them. PeaceHealth has your health at heart, right here.

- Expert cardiovascular physicians and surgeons
- Minimally invasive procedures to repair valves, restore heart rhythm and more
- Diagnostic screenings
- Rehabilitation therapy

peacehealth.org/southwest/heart

 PeaceHealth
Southwest Medical Center



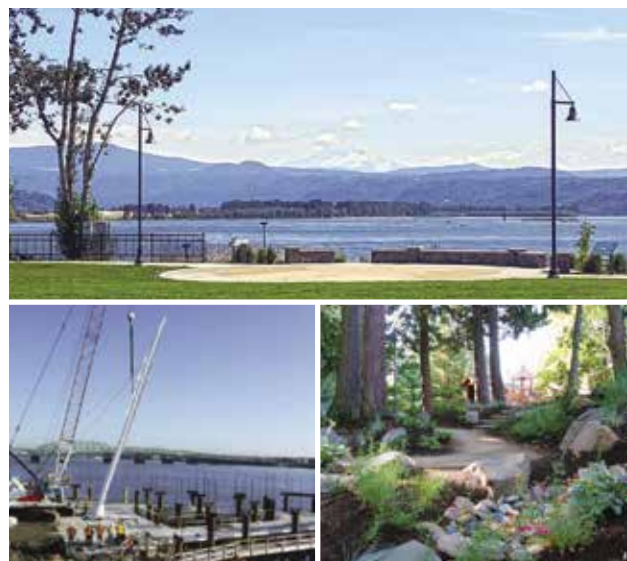
SmartRG Home Analytics software monitors network performance and enables service providers to optimize home WiFi networks.

Photo courtesy of RealWear
The RealWear Head-Mounted Tablet (HMT) is designed for skilled technicians and engineers in field service, equipment inspection, maintenance and complex manufacturing assembly.



The Internet of Things delivers information to the factory floor

Head-mounted tablet replaces paper manuals



Connecting Communities

through the creative design, planning, and engineering of infrastructure, schools, parks, and trails projects.

Land Use Planning | Environmental Services | Landscape Architecture | Strategic Planning + Communications
Civil/Structural Engineering | Construction Management

 **BergerABAM** | 360-823-6100 | abam.com



Andy Lowery

By **ANDY LOWERY**

In the middle of 2017, RealWear landed and began expanding in the newly refurbished Fort Vancouver Artillery Barracks.

RealWear is a company founded in Silicon Valley. But after a year of hyper-fast growth, we decided to look for alternative locations to the high-cost, highly congested tech scene that surrounded us in Silicon Valley. The community and leadership of Vancouver embraced us. We had found our new home.

RealWear is an Industrial Internet of Things, or an IIoT, company. Some call the IIoT the “next Industrial Revolution,” or Industry 4.0, but this is a misnomer. In fact, we are witnessing the application of the information revolution to industry.

The promise of the IIoT is that it will bring higher revenues through reduction of unplanned

downtime, and also cost-saving efficiencies by increasing speed and accuracy of information “at the edge.” “The edge” refers to where the real work on various equipment is being done, not a control room or an office.

RealWear’s flagship product is an industrial-grade, head-mounted computer that runs on an Android operating system and therefore we call it a “Head Mounted Tablet” or HMT-1. RealWear’s technology converts any existing Android or HTML5 application to a voice-driven mode automatically. The HMT-1 industrial design works mounted on existing hard helmets or baseball caps. It provides the connected workers at “the edge” with an ability to work hands-free, in order to have access to instructional videos, in situ video conferencing or equipment diagnostic data, previously only available in a control room hundreds of yards or more from where the equipment is running.

In essence, we are a master key to the gate that allows for actionable information in cloud-based artificial intelligence software platforms to be delivered to the workforce on the frontline. Further, we are creating the workplace tools for the first true “information age” generation, the Millennials.

Millennials are joining the workforce by storm, taking up the operational reigns from retiring Baby Boomers. Millennials do not remember a time before the Internet, before distributed and mobile computing. Millennials, like my kids, grew up with a computer in their hand.

Ironically, the industry is largely still handing these young adults paper, pencil and printed manuals for maintenance, repair and operation. RealWear is changing that. We deliver a new class of tool to today’s newest generation just beginning to enter the workforce. Our tools enable tacit wisdom and knowledge from the most experienced to flow into this workforce remotely from the comfort of their office or home.

These are just a few ways that RealWear aims to change the way we work across all industries. And we aim to do this right here, with the talent and support of our new home wonderful Vancouver, Washington.



Photo courtesy of RealWear

Realwear’s Head-Mounted Tablet is voice-activated for hands-free use.

Andy Lowery is co-founder and CEO of RealWear.



Photo courtesy of Blokable

The MicroBlok, here with the entry on the short side, can be a stand-alone structure or a connected unit.

Even housing can be an Internet product

Mass producing homes drives costs down



Aaron Holm

By AARON HOLM

We are experiencing a severe housing crisis in the Pacific Northwest. Homelessness is increasing and housing affordability is in peril. These problems cannot be fixed by simply adjusting. We need to rethink housing in its entirety: land use, regulation, finance and construction methods.

Though we have more computing power in our smart phones than we had in data centers 20 years ago, we still build housing as if most modern technology didn't exist. Your mobile phone is an incredible camera, GPS, audio recorder, health tracker, personal assistant, and augmented reality interface. Yet it still costs less than \$1,000 is because it's mass-produced. If you were to build that same phone the way we build

housing, each device would cost millions of dollars.

Your smart phone has hardware and software that work together to deliver useful features and experiences. We don't think of housing as technology, but we should because housing should be the ultimate technology product.

Vancouver could be the center of the housing innovation we need. The city already boasts a high-quality manufacturing supply chain, a strategic geographic location and a talented workforce. All this makes Vancouver an ideal hub to change our economy. It's why my company, Blokable, chose the city for its manufacturing headquarters.

We started Blokable to help solve a huge problem in the Pacific Northwest. While productivity in manufacturing has nearly doubled

HOLM, Page 8

YOUR **AWESOME** BUSINESS NEEDS AN AWESOME **WEBSITE**



For Amazing Web Design

Call: (360) 735-4472

sproutdigital.us



Photo courtesy of Blokable

The MicroBlok is a 260-square-foot, single-story apartment.

Holm

From Page 7

in the last decade, it has remained flat in construction. To address the housing crisis, we must shift the focus from a construction challenge to a manufacturing challenge and drive time, complexity and cost out of the process to bring housing supply to the market where it's most needed.

Blokable's manufacturing facility is already ramping up to deliver housing supply and improve the lives of our neighbors in Washington, Oregon, Idaho and California.

Our first product is the MicroBlok, an Internet first. The MicroBlok is a 260-square-foot, single-story, beautifully designed apartment that is manufactured in Vancouver, transported by truck, and installed and connected to the Internet, other MicroBloks, and to utilities on site.

MicroBlok is plug-and-play housing for students, veterans, people experiencing homelessness, teachers, firefighters, service workers, seniors and others for whom quality housing is not currently

attainable. MicroBloks are installed in clusters to create integrated communities.

In the same way water, power and sewer must work for housing to be livable, we see the Internet as a core utility without which housing is severely compromised in its capabilities. That's why the Internet is the first utility we connect.

Each unit can report performance. It's equipped with fire and smoke detectors, security, temperature control, power consumption tracking and leak detectors. Each MicroBlok can even be regularly updated via software to improve performance and advance user experience. These are basic features that should be inherent in every new residence, not added on as an afterthought.

Changing behavior won't be easy. Shifting to manufacturing and buying products rather than building custom projects threatens the profits that complexity creates. The way we entitle land, regulate, finance, build and even measure success is based on the traditional model of site-built construction. However, building endless custom projects limits innovation.

Urbanist Jane Jacobs famously wrote, "Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody." And we in Vancouver can help pay off that vision by building smarter communities that serve each member. When we build Internet-first housing products we can open up a new market for technology and services



Photo courtesy of Blokable

Blokable sees the Internet as a utility as essential as water, power and sewer.

that are truly built for the communities they serve. We can provide housing as a platform on which new tools and services can be built.

But we must have the courage to change the way things have always been done. We must work across industries to eliminate friction against new kinds of housing, meaning the public and private sectors must partner. Traditional real-estate leaders must be willing to try new products. And emerging industries must support policies and technologies that help populations vulnerable to spikes in the housing market.

We're not alone in this vision; investors such as Paul Allen's Vulcan Capital, Urban.us, Borealis Ventures, Jason Calacanis and Kapor Capital have invested \$6 million to build a technology company that can dramatically increase the supply of high-quality housing at the fastest pace and lowest cost. But we cannot rely on funding and technology to solve the problem. Public officials, civic leaders, architects and urban planners must all work together.

Given the seriousness of the housing crisis, we must move quickly to provide new tools and options. We need to build long-lasting communities together – and now.

Aaron Holm founded Blokable in 2016.



Photo courtesy of Blokable

Blokable manufactures its MicroBlok apartments in Vancouver, and transports them by truck to be installed.

Thank you!

TO OUR INVESTORS AND PARTNERS FOR YOUR COLLABORATION & SUPPORT



SAVE THE DATE CREDC INVESTOR-ONLY ANNUAL EVENT
JANUARY 24TH • WINDY HILLS WINERY

CREDC.ORG

SPONSORED BY: LSW ARCHITECTS, MILLER NASH GRAHAM & DUNN, BERGERABAM, COLUMBIA BANK, & MACKAY SPOSITO

Shortell

From Page 4

room from a single hub and won a CES 2017 Best of Innovation Award.

Security is a major issue and is likely to become an even bigger deal as more devices are connected to the Internet. Standards and regulations have a hard time keeping up with the fast pace of technological innovations in this field.

ARM, which provides one of the leading standard processor designs for embedded devices, came out with its "IoT Security Manifesto" this fall seeking to change how devices are designed so they are more secure. The manifesto states that it is primarily the responsibility of the developers to design security into IoT devices.

Blockchain, software for digital assets, will continue to grow and enable device-to-device transactions with new levels of trust. These interactions, when financial, will also become more efficient as there is no middleman required to process transactions, thus reducing transaction costs.

We truly are heading toward a time where everything we interact with in the home or workplace could be connected. The continued drive for more automation



Photo courtesy of Simplexity

Simplexity helped Senaptec redesign its Strobe eyewear, which helps athletes train to respond faster to visual stimuli.

and efficiency will make our lives more convenient.

But just as cell phones have in theory made us more "connected," will the proliferation of IoT devices really make us more connected as humans, or make us drift apart since we won't need to rely on each other as much?

Dorota Shortell is chief executive officer of Simplexity, which was founded in San Diego in 2005 and opened its Vancouver office in 2007 to serve its largest client, HP Inc.



Photo courtesy of Simplexity

Simplexity helped Nautilus convert its Bowflex SelectTech 560 dumbbells into an Internet of Things device.

WE HELP YOUR BUSINESS GROW Digital Marketing - SEO - Social Media



Grow your online presence

Call: (360) 735-4472

sproutdigital.us

Innovation economy brings volatility and opportunity

Workers will need new skills in this artificial intelligence revolution



Kevin Getch

By KEVIN GETCH

Artificial intelligence, blockchain technology, cryptocurrencies — these are just a few of the buzzwords that dominated the headlines in 2017. The pace of innovation we are experiencing is at an all time high.

Technological innovation will drive the economy in 2018 and for the foreseeable future. This alone

doesn't guarantee overall economic prosperity. Uncertainties about new technologies as well as roadblocks to innovation will throttle the rate of adoption and hence the growth.

New technology will present a lot of opportunity for adaptable early adopters, but it will also bring a lot of volatility. Nothing is a better example of this than Bitcoin. Created in 2009, the digital

currency reached a record high value in 2017 before retreating in December.

Someone who bought \$100 worth of Bitcoin in 2010, the first year it was traded, would be a millionaire today even at its December 2017 price. This is an extreme example of the kind of opportunity and volatility that's in store before these new technologies gain a foothold in the mainstream.

Why am I so interested in the future of technology and how it will impact the economy? Well, one of my favorite oxymorons is "anticipatory retaliation." My job as CEO of Webfor is to foresee trends in our industry and make sure our clients are taking advantage of opportunities now while preparing for the future.

I founded Webfor in 2009. When I moved here in 2006, I didn't realize at the time that I would fall in love with this community. Like many, I had some incorrect perceptions of "The Couv," but after living, working and playing here for 12 years I can say there's no place I'd rather call home.

In 2015, Webfor moved to downtown Vancouver right across Main Street from Kiggins Theatre. As I've become more active in the local community, including volunteering as vice chairman of the Greater Vancouver Chamber of Commerce's board of directors, I've realized that my favorite thing about Vancouver is the people. I'm grateful to live here, surrounded by amazing people who truly care about this community.

My main area of expertise is in the field of digital marketing. Webfor focuses on growing local businesses through a comprehensive customer-centric digital marketing strategy. We customize the strategy for each business through user-experience focused website design, effective content and search-engine

strategies to grow traffic and revenue.

Innovations such as artificial intelligence impact my industry daily. Search engines want to provide the best search results so that people will continue to use their services. Google has implemented a machine learning artificial intelligence (AI) called RankBrain to better understand the intent behind people's searches and order results even more intelligently. This portion of Google's algorithm quickly became one of the top three ranking factors in a bucket of more than 200 such factors.

I believe we are in the beginning stages of an AI revolution that will make the industrial revolution look like a blip on the screen. Before the industrial revolution, everything was powered by a person or an animal. The industrial revolution greatly improved the way we work and live, but it was also hard on many people whose jobs changed or become obsolete.

Over the next five years, many of us will have to face these same challenges. According to "Artificial Intelligence, Automation and the Economy," an in-depth 2016 report by the Obama Administration, "AI-driven automation will continue to create wealth and expand the American economy in the coming years, but, while many will benefit, that growth will not be costless and will be accompanied by changes in the skills that workers need to succeed in the economy, and structural changes in the economy."

If anyone is ready to tackle this challenge, we are — with our great schools and colleges, employers, and organizations such as the Chamber and CREDC working together to improve the local community for everyone.

Kevin Getch is founder and director of digital strategy at Webfor.



Photo courtesy of Webfor

Kevin Getch opened Webfor's office across Main Street from the Kiggins Theatre.

MOVING BUSINESS FORWARD

Greater Vancouver Chamber of Commerce
1101 Broadway Suite 100
Vancouver, WA 98660
(360) 694-2588
www.vancouverusa.com

Join us!

Good year ahead for Clark County

Job growth may reach 3 percent in 2018



Scott Bailey

By SCOTT BAILEY

It looks like 2018 is shaping up to be another good year for Clark County's labor market, but maybe not as good as 2017.

First, a look back at some lagging indicators: Data released in the past few months show that both median household income (up 6 percent!) and median hourly wages (up 1.4 percent) rose in 2016. With labor markets tightening in 2017, both will likely have increased in 2017 and continue to climb upward in 2018.

However, over the past decade, inequality has increased. High income households enjoyed a 20 percent gain in average income, while households at or below the median had only a 6 percent gain. The average pay for low-wage jobs increased by 7 percent over the past decade, while the average for high-wage jobs grew almost three times that rate. It would be no surprise for gap between rich and poor to widen again in 2018.

Before I move on to more predictions for 2018, let's look back at my forecast for Clark County last year:

- I predicted continued strong job growth of around 4 percent. Preliminary data put 2017 job growth at 4.4 percent.
- I guessed that single-family housing construction would strengthen and start to approach pre-bubble historic averages. That didn't happen. Both Clark County and Portland bucked the national trend in 2017, with preliminary data indicating that single-family housing permits were slightly below 2016 levels while multifamily permits were higher – the highest since 1988 for Clark.
- I believed manufacturing would show little change – it's on track to add only 100 jobs in 2017 – and that retail trade and food services would do well as incomes rebounded. The latter were both up over 3 percent in terms of employment, and 6 percent in terms of sales; for retailers, that's not bad in this age of online shopping.

Looking ahead, most forecasters expect



Columbian archives

Clark County saw a boost in construction of multifamily housing last year.

that the national economy will grow faster in 2018 than in 2017, and that's saying something. The second and third quarters of 2017 topped 3 percent growth in GDP, and the final quarter could make it three in a row. Moderated job growth will continue to tighten the labor market, which despite a low unemployment rate still has considerable slack. The Fed will vacillate between fretting that inflation is too low and worrying that full employment is already here with rampant inflation in the works.

State forecasters believe that Washington will continue to outperform the United States. The latest forecast for Oregon looks much the same as last year: a somewhat slower growth rate and low but slightly higher unemployment.

All of this bodes well for Clark County. Almost every sector of the local economy expanded in 2017. We could see a repeat performance in 2018. Without a big ticket item – like the opening of the Ilahi Casino in 2017 – I expect employment growth will be moderate to 3 percent. The coming job cuts at the Camas mill will not help, but barring any other surprises, it should be a good year.

Scott Bailey is regional economist for the Washington Employment Security Department.

Financial Goals for the New Year?

Let Us Help You With:

- ☑ Financial Planning
- ☑ Retirement Planning
- ☑ Investments
- ☑ 401(k) Rollover Services
- ☑ IRAs



Call Us Today.

Michael Colvin | 360-258-1005
Financial Advisor | IndigoWealth.net



Securities offered through LPL Financial, a Registered Investment Advisor. Member FINRA & SIPC. Investment advice and financial planning offered through Financial Advocates Investment Management, DBA Indigo Wealth Management, a registered investment advisor. Financial Advocates Investment Management, Indigo Wealth Management and LPL Financial are separate entities.

Commercial Banking

Your **Local** Resource For:

- ✦ Equipment Financing
- ✦ Land Loans
- ✦ Tenant Improvement Financing
- ✦ Operating Lines of Credit
- ✦ Commercial Real Estate Loans



Local, Personal Service.

Andrew Roskam

360-514-5064

Cody Ritter

360-258-3421

George Martin

360-258-3425

Jeff Allen

360-759-2444

Monte Silliman

360-514-5087

PJ Fisher

360-514-5056



Riverview
COMMUNITY BANK



RiverviewBank.com