

## Division of University Outreach and Engagement

Oregon State University

September 2017

The Division of University Outreach and Engagement connects Oregon State University, the state's land grant university, to the rest of the world by making its educational programs accessible wherever and whenever people need to learn. This report includes highlights from OSU Extension Service's seven programs and Extension and Experiment Station Communications (EESC). Extension programs include: Agriculture and Natural Resources, Forestry and Natural Resources, Family Community Health, 4-H Youth Development, Oregon Sea Grant, Open Campus, and Outdoor School. For a complete picture of university-wide outreach and engagement, consult the appropriate sections of each college's report.

### Goal 1: Provide a transformative educational experience for all learners.

#### Enhance the learning environment to raise and equalize student (learner) success.

- Open Campus and Juntos coordinators coached 108 OSU Ecampus students, 480 community college students, and more than 1,440 high school students in 2016.
- Extension builds STEAM skills and career interest in a variety of ways:
  - 4-H and the Portland Metro STEM Partnership received a \$1.5 million grant from the Oregon Department of Education to co-lead "**STEM Beyond School**" (SBS) Communities of Practice project. Over 18 months, SBS will establish a networked learning community of STEM providers and support organizations aimed at improving STEM learning opportunities for underserved students in grades 4-8. More than 1,000 students—70% students of color, students in poverty, students with disabilities, and English language learners—will receive 70 hours of high quality, community-based science programming outside of school hours.
  - [Mariachi STEAM Camp](#) offers middle and high school Hispanic musicians an immersive musical experience while emphasizing exploration of STEAM topics. In 2016, underserved youth from diverse schools in Portland, Hillsboro and Forest Grove participated in a five-day residential Mariachi Camp on the OSU campus in Corvallis. Music-focused activities introduced students to music theory and audio processing concepts, and connected music to STEAM concepts, all while advancing their music performance skills.
  - OSU Extension assists in offering the free [Renewable Energy Education Program](#) by training educators to teach scientific inquiry, problem-solving and critical thinking skills through hands-on experiments and activities around energy, electricity and conservation. Through the program, OSU Extension mentors teachers while delivering a 14-hour hands-on energy curriculum during school hours in Clackamas County.
- In November 2016, Oregon voters approved Ballot Measure 99, which designated funding for **Outdoor School** programming for every 5<sup>th</sup> or 6<sup>th</sup> grade student in Oregon. This measure followed the adoption of Senate Bill 439, codified into law as ORS327.390, by the 2015 Oregon Legislature, which directed Oregon State University Extension Service to assist School Districts and Education Service Districts to provide a statewide Outdoor School program. In July 2017, the Oregon Legislature formally approved the Higher Education Coordinating Commission 2017-19 biennial budget, which includes \$24 million for the statewide Outdoor School program over the next two years. With input from our advisory committee, we have drafted an application process, timeline, and documents and are prepared to begin working with districts in preparation for funding Outdoor School programs for the 2017-18 school year. A program leader has been hired.
- The **4-H Natural Resource Camp** was revived by Grant County 4-H. Many local, regional and national agencies and businesses, including the Confederated Tribes of the Warm Springs, were brought together with a common vision: connect youth with the natural environment.
- Almost 600 sixth graders attended the 53<sup>rd</sup> annual **Forest Tour** in Klamath County. The tour provides students with natural resource management career awareness and instills an appreciation for the importance of forest resources to the quality of life and economy of the area. Students learn about firefighting and fire prevention, wildlife, soils and water, forest products, tree identification, camping and survival, and forest management.
- The **4-H Urban-Rural Exchange** uses youth as a catalyst for change. Since its inception in 2006, more than 44 six-day exchanges have taken place and more than 430 Multnomah county and more than 520 rural youth and adults have participated in the program. 4-H urban middle school youth spend six days working alongside ranchers and farmers from rural

Eastern Oregon to learn the joys and challenges that come with rural life. Participating youth learn to weigh both sides of a story, which makes for a more informed citizenry.

- Master Gardeners have partnered with the Northern Oregon Regional Correctional Facilities (NORCOR) youth to implement the [in-custody youth greenhouse project](#). This allows them to share greenhouse space and grow a variety of plants with the youth, imparting expertise and education while fundraising to accomplish project goals.
- No current facilities exist in south-central Oregon for **training and educating first responders in fire, medical, and law enforcement**. Students and career professionals have had to leave the area to obtain qualified training. Travel distance and expense make it difficult to recruit volunteers for Klamath and Lake Counties. Working with a partnership of state, county and federal fire managers and trainers, Daniel Leavell, Forestry and Natural Resources Extension in Klamath County, organized the first structured fire academy held in the Klamath Basin. Extension faculty also assisted Klamath Community College (KCC) to draft a Public Operations Response curriculum and course outlines for an AA degree offering. Daniel also salvaged and managed the emergency medical program at KCC and assisted with obtaining state accreditation. He developed curriculum for a 2-year public safety program, taking the lead instructor role for the structure fire academy.
- **Get Outdoors Day** is a national event hosted by OSU College of Forestry and OSU Extension in Benton County. It encourages youth and families to seek out healthy, active outdoor lives and embrace parks, forests, refuges and other public lands and waters. The goal is to connect youth and first-time visitors to the great outdoors and support the ideals of sustainability, fitness and nutrition. In 2016, 520 youth and families participated and 25 community partners provided hands-on educational activities in both Spanish and English. An estimated 30% of attendees were non-white.

#### **Grow online education and explore new pedagogical models.**

- The Division collaborated with Dr. Liddy Detar (Women, Gender and Sexuality Studies) to launch the **Listen Up! Oregon Object Stories** project. This project is an accessible, creative, and intellectually engaged digital space that invites students to digitally represent personal objects through images, descriptions, or 3D scans; imbue those objects with meaning through storytelling in the form of text, video, or audio; and share their object stories with the regional Oregon community. This ongoing project draws on digital humanities building practices, engaged teaching, and community partnerships to create public scholarship.
- Jeff Hino, Extension Learning Technology Leader, and Cub Kahn, coordinator of the Hybrid Course Initiative in the OSU Center for Teaching and Learning collaborated to produce the [Teaching Hybrid in Extension Toolbox \(THE Toolbox\)](#). This self-paced Canvas course is aimed specifically at Extension educators who want guidance on creating hybrid programming on Canvas. It provides an overview of some of the basic principles of hybrid learning, introduces Canvas and lets learners hear first-hand from OSU Extension faculty who have successfully created and delivered hybrid courses.
- The **Citizen Fire Academy** (CFA) program was developed to promote, maintain, and enhance fire-adapted communities where residents and landowners know how to prepare for and safely react to wildfire. The comprehensive, peer-reviewed curriculum covers fire science, home protection strategies, living in a fire environment, fuels reduction, and effective community outreach strategies. Each module includes a narrated PowerPoint and Canvas template. The program can be delivered in standard classroom/field format or in a hybrid, online/workshop format. The CFA pilot targeted landowners in the Wildland Urban Interface and were held in central, SW and NW Oregon. CFA trained about 50 volunteers. Activities undertaken by volunteers include developing Firewise Communities, spearheading neighborhood evacuation plans, attending community gatherings to outreach on Firewise practices, hosting field tours, educating high school students on wildfire, and informal home inspections.
- Master Gardener resources have migrated online and include a popular Facebook presence and online Master Gardener training, which is being used across the United States as a stand-alone course and to supplement local **Master Gardener training**. Enrollment has gone up 10-fold since 2012 and Master Gardener certification is now available online through the OSU Professional and Continuing Education (PACE) unit.

#### **Expand strategies to recruit diverse and high-achieving students (learners).**

- OSU Open Campus Coordinators are **partnering with Oregon community colleges to ensure successful transfer to four-year institutions**. Over 80% of community college students begin thinking they will obtain a bachelor's degree; however, only 14% ever complete a four-year degree. In partnership with Extension and Ecampus, community college students are coached to take courses that transfer into Oregon State University. Learners may explore the Degree Partnership Program, where they are dual enrolled with OSU, and can take online courses while staying at home. In the past year, Open Campus coordinators have reached over 1,000 potential learners to help make the path to OSU attainable.

- The **OSU Juntos program** provides culturally relevant educational opportunities to Latino families across the state. In 2017, President Ed Ray welcomed 1,251 Juntos family members to the OSU Corvallis campus for Family Day. Every academic college participated by providing hands-on activities to highlight careers within their fields of study. Each session was offered in Spanish and English, and the whole family was invited to participate. Juntos has served 2,500 students and parents in 33 schools in 26 communities, maintains 100% high school graduation rates with 92% post-secondary participation.
- Celebrating its 100<sup>th</sup> anniversary, the four-day **4-H Summer Conference** brought 470 youth—ranging in age from 12 to 19—representing every county in the state. The connection between 4-H and OSU is strongly emphasized, and many departments offer classes that allow participants to sample the many majors they could pursue in college. Summer Conference encompasses the four essential elements of positive youth development: belonging, mastery, generosity, and independence.
- Three local schools support Malheur County **SMILE Clubs**. The clubs involve minority students, students who are from low-income households, and those who would be the first in their families to go to college. Barb Brody, 4-H, SNAP-Ed and Family and Community Health educator, is involved in all aspects of the club, including providing STEM lessons, planning Family Math and Science Nights (one at each school), teaching professional development workshops for local and statewide teachers, and organizing field trips and trips to OSU SMILE camps on the OSU campus. More than 160 students participated. The STEM enrichment activities have a direct, positive impact on graduation rates.

#### **In other ways advance student (learner) success.**

- Oregon State **public health students wanted to change the world for the better**, using their education. Students collaborated with OSU's community partners in Washington County to plan and deliver healthy movement, games and other parks activities for children's health and well-being during the summer. This activity plan aligned with Washington County's Community Health Improvement Plan. Over 600 hours of programming at summer meal program sites were made available without cost to Washington County youth (ages 4-18) and their guests.
- A recently enacted federal rule significantly restricts the use of antibiotics in animal agriculture, changing the way feed-grade antibiotics are labeled and used in livestock operations. Sergio Arispe, an Extension livestock expert based in Malheur County, has prepared a tool to help ranchers navigate and understand the directive in the **free Extension publication called The Veterinary Feed Directive: [Questions and Answers for Oregon Livestock Producers](#)**.

## **Goal 2: Demonstrating leadership in research, scholarship and creativity while enhancing preeminence in the three signature areas of distinction.**

#### **Expand and cultivate transdisciplinary research (on campus or through partnerships).**

- Oregon Sea Grant (OSG) Extension partners with health science researchers to **understand non-fatal injuries in the west coast Dungeness crab fishery** and collaborate with the industry to develop preventive measures. Fishermen suggested the need for a fishing-specific first aid and CPR course. As a result, OSG invited a wilderness medicine expert to the Oregon towns of Newport and Astoria in the fall of 2016 to train fishermen on how to treat medical conditions and at-sea injuries such as cuts, broken bones, dislocated shoulders, and hypothermia. OSG Extension also plans to test injury prevention strategies in the 2016-17 crab season.
- Wallowa County's economy is strongly tied to beef production and ranchers are keenly aware of growing wolf populations. Extension Associate Professor John Williams has partnered with ranchers and state and federal agencies to do research and educate the public on **wolf/cattle interactions**. This effort has helped OSU streamline research methods, provided an outlet for rancher ideas and frustrations, and improved the public perception of ranchers as partners in the resolution of sustainable ranching and enhancement of the restoration of wildlife communities.

#### **Expand and increase high-profile programs in the arts and humanities.**

- Extension Reconsidered planned and executed the **Creative Valley**, part of Creative Oregon, in partnership with faculty from the College of Liberal Arts. Creative Oregon is a partnership across a number of arts and communications classes involving multiple trips to Oregon landscapes, developing connections with communities in those landscapes, and interdisciplinary art projects based on the experience. Creative Oregon will be presented at the 2017 Engagement Scholarship Conference and the a2ru arts conference.

- Charles Robinson, Division special initiatives, directed the fourth annual [Corvallis Maker Fair](#) in April 2017 involving volunteers from across campus, and interactive campus and community vendor demonstrations. Over 2,000 campus and community members enjoyed diverse hands-on interactions with 67 exhibitors.
- Supported **SPARK – The Year of Arts and Science@OSU**, a yearlong series of events to celebrate and elevate the convergence between the arts and science, their critical interplay with each other, and the rich partnerships and collaborations that make it all possible. Planned and delivered 90 events throughout Oregon. Seventy-eight percent of SPARK events involved community engagement opportunities, 50% included direct student participation, and the SPARK program tallied over 35,000 hours of collaboration in the planning and execution of the calendar.

### **In other ways advance leadership in research, scholarship and creativity.**

- **Pollinator health** is of interest to wide ranging audiences from municipalities and commercial beekeepers to home gardeners.
  - OSU Extension research looks at whether differential collection of pollen types within and around cropping systems might negatively affect colony health by assessing the diversity of pollen collected by bees.
  - Pollinator nutritional stress when pollinating almond and carrot seed mono-crops demands finding suitable supplemental forage for honey bee colonies. Four suitable plant species were identified for planting in central Oregon adjacent to carrot seed crop fields. One more year of data collection is underway for the almond crop. Funding was provided from the Almond Board of California and Central Oregon Seeds Inc.
  - Inadequate pollination is a concern in several crops that are dependent on bee pollination such as blueberry, pear, carrot and onion seed crops. A synthetic honey bee brood pheromone that enhances pollination in carrot seed—a crop worth \$1.5 million per year in Oregon—has been tested and found to have efficacy. Industry and the Jefferson County Seed Growers Association pledged financial support for continuing research.
  - Commercial beekeepers were unable to get a quick and timely analysis of their colony health status. In collaboration with the Bee Informed Partnership, a national honey bee Extension program, the PNW Honey Bee Tech Transfer team—constituting two trained research assistants—was created. Pest and pathogen analyses are provided and timely results enable timely action. More than \$250,000 in funding has been secured from a variety of partners.
  - Native pollinators, which provide valuable pollination service in agricultural and natural landscapes, have been in decline. To move bee conservation efforts beyond small-scale plantings adjacent to agricultural fields, mixing clover and other bee-attractive plants that differ in blooming periods to pastures creates large-scale, high-quality food resources for native bee populations.
- **Gerontology Conference**, a two-day annual event led by Family and Community Health Extension features workshops by leading geriatric professionals presenting current information for health and human services occupations in a wide variety of disciplines and attracts over 400 participants. Up to 16 continuing education units (CEUs) are available to attendees.
- It is critical to the security of food systems to increase our knowledge and awareness of how Oregon growers are being affected by climate change and for the viability of farms in our region to expand drought mitigation tools and strategies for growing with little or no irrigation. The **Dry Farming Collaborative Partnership** made up of farmers, Extension educators, plant breeders, and agricultural professionals increases knowledge and awareness of dry farming management practices with a hands-on participatory approach. The dry farming projects as blossomed into a regional movement involving stakeholders from OR, WA, CA and beyond.

## **Goal 3: Strengthen impact and reach throughout Oregon and beyond**

### **Position OSU's outreach and engagement programs as learning laboratories that promote high-impact learning and effectively utilize university research.**

- **OSU is relied on** for nutrient recommendations and helping farmers adapt to a changing regulatory environment.
  - OSU fertilizer and nutrient management guides were originally intended to advise farmers in making economic decisions regarding fertilizer use, but they are now being used as guidance by state and federal agencies to regulate on-farm management of nutrients.

- The Natural Resource Conservation Service adopted OSU recommendations and bases its conservation program requirements on the recommendations communicated in OSU Extension publications.
- Results from a recent survey of representatives from western Oregon ag retail companies indicate that over 80% of local field reps use one or more OSU nutrient management guides when recommending fertilizer rates and determining the need for lime in grass seed and wheat crops.
- Oregon-specific recommendations for fertilizing strawberry, blackberry, blueberry, and kiwi crops are now standard practice in the industry, reducing the nitrogen rates in commercial farms.
- Extension research found that foliar applied calcium products do not improve fruit quality in berries. Not using these products saves growers money.
- Community partners requested a response from OSU to address the **emerging issue of heavy metals in soils contamination** in Portland. In response, OSU Extension organized and co-conducted outreach events to screen soil samples for lead and other heavy metals. Partners included Oregon Health Authority, Oregon DEQ, Multnomah County Health Department, City of Portland Bureau of Environmental Service, Metro, US EPA/ATSDR, and local media. A free, newly updated OSU Extension publication telling gardeners how they can reduce heavy metals hazards in gardens and play areas, and a new [web page with quick-reference links](#) to resources about heavy metal pollution were produced.
- In a community-based participatory research project with six rural cities, Family and Community Health Extension is helping stakeholders alter the environment in ways that will **prevent childhood obesity and create a model that can be used in similar communities**. The elevated community interest resulted in county-wide teacher training, tasting tables in cafeterias, district approval to include language in wellness policy supportive of school gardens, school-wide health fair, Fuel Up to Play grant for healthy eating and physical activity, developing a wellness committee, purchase of a climbing wall, and training high school students to deliver Playworks.
- **Blue Zones Project**<sup>®</sup> is a community-wide well-being improvement initiative designed to make healthy choices easier by encouraging sustainable changes in the built environment and social networks. Family and Community Health Extension is currently active in four Blue Zone projects in Oregon: Grants Pass, The Dalles, Klamath Falls, and the Umpqua Region. The intent is to create vibrant, economically viable communities less hindered by poor physical, social, and emotional health.
- **GROW Healthy Kids & Communities (GROW)** was a 5-year, \$4.9 million USDA NIFA funded project that integrated research and Extension to prevent a rise in obesity prevalence among rural children. The multi-state, multi-level (community, school, family home) project used participatory and population approaches to create a rural context and culture acknowledging the importance of weight health. The website provides information to the public about the project and rural childhood obesity prevention, including family newsletters, media articles, tools, and links to partners and public resources.

#### **Grow rural and urban regional centers to advance social progress.**

- The mission of **Oregon Parenting Education Collaborative (OPEC)** is to support the delivery of high quality parenting education programs and to support collaborative efforts to strengthen regional parenting education systems through coordination and planning. OPEC is a collaboration among OSU and Oregon's four largest foundations, and includes 15 hubs serving 32 Oregon counties and Siskiyou County in California. These hubs have increased availability and access to high-quality parenting education programs, have helped de-stigmatize parenting education, and have increased collaboration among agencies focused on parenting outcomes. OPEC hosts an annual conference for 400-500 attendees, including parenting educators, early childhood educators, and professionals working with families.
- **Veggie Rx** is a program that encourages health care and social service providers to issue monthly "prescriptions" for \$30 of fresh fruits and vegetables to those identified with nutritional and food security concerns. Family and Community Health Extension collaborates with the Veggie Rx program in Hood River, Jackson, Sherman and Wasco counties in Oregon, and Klickitat and Skamania counties in Washington.
- **SNAP Outreach** is designed to minimize the barriers to enrollment and retention in the SNAP program (food stamps). The program assures that at-risk populations have access to healthy foods and that food insecurity issues are identified and addressed. Family and Community Health Extension faculty deliver SNAP Outreach in 12 counties in Oregon.

#### **Drive economic development.**

- There is a national—and state—concern about the economic and environmental consequences of a large-scale and potentially unplanned transition of farms and acreage. Taking a research-based approach, OSU Extension collaborated with Portland State

University and Rogue Farm Corps to produce a research paper, “**The Future of Oregon’s Agricultural Land,**” to provide a view of the situation and recommend education and action steps. A key finding is that over the next generation, 64% of Oregon’s agricultural land will change hands, and a large majority of current owners does not have a succession plan. The report has received extensive attention and press coverage across Oregon and it was included in the 2017 Oregon Business Plan.

- Oregon is one of the top blueberry-producing states in the U.S. Finding ways to improve production practices, fruit yields, and farmer profitability is at the heart of **blueberry crop research and Extension programs**. Activities included: pruning and cropping on young blueberry plants; pruning severity and impacts on costs, yield, and quality of mature plants; planting density and impacts on long-term production; trellising for machine harvest efficiency; relationship between fruit developmental rate and growing degree days; yield progression and fruit quality of new blueberry cultivars; irrigation and fertigation practices; trials to correct iron; identifying “shock” virus resistant plants to reduce crop loss (estimated benefit to the industry of \$5 million annually); and evaluating benefits of flower suppression during the first and second growing season. The economic benefit of the research to the blueberry industry is estimated in excess of \$8 million/year. Workshops on pruning have been conducted in Oregon, Washington, California, Canada, Chile, and Italy.
- In Oregon, many K-12 schools no longer provide financial, business, or entrepreneurial education. **4-H Entrepreneurship education** seeks to prepare youth to be responsible, enterprising individuals who become entrepreneurs or entrepreneurial thinkers by immersing them in real-life learning experiences where they can take risks, manage the results, and learn from the outcomes. 4-H Entrepreneurship is a comprehensive year-round program designed specifically for urban and rural underserved high school youth. OSU College of Business students and industry partners mentor the students.
- Oregon Sea Grant Extension organized and led tours of the Newport docks during which shoppers can buy direct from fishing vessels. Called “**Shop at the Dock,**” shoppers received recipes and information about different types of seafood products and how to buy fresh seafood. During the tours, faculty talked about regulations, sustainability and fishing practices. The event expanded to Warrenton docks in 2017. Senator Jeff Merkley recognized the program at a Newport town hall meeting.
- Lynn Long, Horticulture faculty member in Wasco County, has been working on **orchard management strategies for cherries** focusing on trees per acre, pruning systems, dwarfing rootstocks, and more. His work has ranged from a focus on local cherry producers in the Mid-Columbia to international efforts in Moldova, Russia, Kyrgyzstan, and Uzbekistan, as well as giving talks in Japan, Turkey, Chili, Germany, Italy, Canada, and elsewhere. He also created a cherry training system manual, pruning videos, numerous Extension publications, journal articles, and extensive research trials on various aspects of cherry production. His work has significantly influenced the cherry producers in the Mid-Columbia region and worldwide.

#### **Engage alumni and other external partners to advance our goals.**

- Co-created the new **Partners for Rural Innovation Center** with Tillamook Bay Community College (TBCC), which jointly houses OSU, TBCC, Economic and Small Business Development Center, and other partners. Opened in March 2017, the joint facility will increase student success, degree completion, and community engagement.
- Columbia Gorge Family and Community Health Extension worked with a community coalition to address high food insecurity rates across the region where one in three residents worry about running out of food. Producers, distributors, social service agencies, healthcare providers, and community members created a **coalition to cooperatively decrease hunger and increase access to quality food** throughout the Columbia Gorge. Governor Kate Brown officially designated the effort an Oregon Solutions Project in March 2016. A list of gaps in the food system was compiled and prioritized. OSU committed to the development of a Food Heroes Nutrition Education Corps that will provide nutrition education and outreach throughout the Gorge through a volunteer training program.
- Both The Dalles and Hood River High Schools have successful Juntos programs. This success has led to the **request by the school districts for the English versions of Juntos**, which will start in two high schools in 2017. Columbia Gorge Community College (CGCC) is partnering with Open Campus and the Wasco County Extension Office to create a full time position to be based at the CGCC. This position will not only provide support to the Juntos program but also work on enhancing the outreach to the Latino Community to increase enrollment at CGCC.
- Asthma is the top cause of absenteeism in U.S. public K-12 schools. Mice are one of the top pests in Oregon schools and their urinary proteins are an asthma trigger. U.S. Representative Susan Bonamici invited OSU Extension to advise, and then join a Legislative Working Group on Integrated Pest Management (IPM) in schools. That invitation led to a bill, signed by the governor, requiring Extension to create one or more model **IPM plans for use in schools**. It also required school districts to designate an IPM coordinator who must complete six hours of training each year. Two model plans and a [website](#) were created, in addition to educational materials. To date, 98% of school IPM coordinators have been trained at 55 on-site events throughout the state.

- **Beginning Urban Farmers Apprentice (BUFA)** is a seven-month (season-long) program that offers small-scale farming education to the next generation of farmers, non-profit garden managers, food justice leaders, and local food entrepreneurs. The program teaches students basic skills in vegetable production, fruit production and the field of small-scale agriculture. BUFA helps participants develop connections and relationships with the organizations, farmers, food justice leaders, and businesses that make up our local food system. The program was visited by USDA's Acting Undersecretary Dr. Ann Bartuska and held up as a national model for training urban farmers.
- OSU Extension, in partnership with the Association of Oregon Counties (AOC), offered a series of courses to assist Oregon's commissioners, judges and other elected officials in learning the ins and outs of county government. [County College](#) is a bi-annual continuing education opportunity for county commissioners and other county elected officials.
- The **Family Impact Seminar** series was developed to facilitate learning among legislative and agency policymakers and experts in a nonpartisan, solution-oriented way with the goal of influencing policies that affect the well-being of families and children. This same research from Dr. Gunter was presented as evidence in support of Oregon House Bill 3141, a bill to require minimum levels of physical activity to students K-8.
- Oregon Sea Grant Extension uses a variety of outreach and training strategies to engage with recreational boaters and marina staff on the topic of **boater waste disposal in Oregon's inland waterways**. Beginning in 2016, the partnership with Oregon State Marine Board (OSMB) expanded to engage recreational boaters and marinas accessing Oregon's inland rivers, lakes, and reservoirs.
- To support Extension's strategic partnership with Travel Oregon, PACE created four **eLearning modules** designed to provide a *Rural Tourism Studio Accelerator* program intended for smaller communities in the early stages of developing tourism, destination development, destination marketing, adventure travel, and outdoor recreation products and services.

#### **Advance impact and reach in other ways.**

- The 2017 **Vice Provost Awards of Excellence** recognized 15 outstanding outreach and engagement programs from nine colleges and units across campus. Special awards were given to community partners—Travel Oregon and Wild Rivers Coast Alliance—in recognition of their strong support of OSU Extension's outreach and engagement efforts on the South Coast.
- The fourth [Roads Scholar](#) cohort hit the road September 2016. Faculty new to OSU or new to engagement work from across the university were exposed to the outreach and engagement philosophy of OSU and to the work of Extension in Central Oregon. The tour reinforced that outreach and engagement is not a unilateral act and the "expert model" isn't the way to engage. Rather, the listening and learning part, essential to building trust and relationships, is just as important as the knowledge part of the equation.

## **Essential Features**

### **Enhancing diversity (increasing diversity of faculty, staff, and students/learners)**

- Ana Lu Fonseca joined the Division in April 2017 as its first **Assistant Director of Diversity, Equity and Inclusion**. She provides organizational leadership for enhancing a collaborative, just, and inclusive community in the Division.
- Changing demographics and increasing diversity of the K-12 population do not align with teacher demographics. The **FIESTAS 4-H model** works with the future teaching force and predominantly Latino third to fifth graders in after-school STEM clubs and includes family engagement through several events per school year called "Family Math and Science Nights". FIESTAS engages an average of 62 OSU students, changes the way STEM is taught in schools, and also the way underserved audiences relate to STEM careers.
- The Expanded Food and Nutrition Education Program (EFNEP) provides practical, skill-based nutrition education to low-income families with young children. **EFNEP Las Comidas Latinas** is a language and specific nutrition education program serving low-income families in Linn and Benton Counties. Education provides immigrant families the needed support to develop life skills, including budgeting, shopping, food safety, food preparation, and basic nutrition. An English language year-round series was also implemented.
- The **Metro Hispanic Nutrition Education Program** (one faculty member and two EPAs), part of Family and Community Health Extension's outreach and engagement efforts in Multnomah and Clackamas Counties, worked with community partners to reach a total of 116 mostly Hispanic adults through 14 groups and 117 classes, reaching 469 family members; and 369

youth through 14 groups and 111 classes. Many of the participants are in crisis and dealing with health issues that better nutrition and a more physical activity can help address.

- Preparing underserved local youth for higher education and fulfilling careers promotes financial security for individuals and their families and spurs economic growth in the community. 4-H partnered with Metro, Portland Community College SE Center, U.S. Forest Service, and Pacific NW Research Station to expand the **Blue Lake Young Rangers** program. It is a year-round program that offers 11 middle to high school-age underserved and underrepresented youth the chance to participate in a paid summer internship. It focuses on connecting underserved communities and communities of color with local, natural spaces. The Young Rangers gain meaningful real life experience and develop transferable skills. The 2016 cohort came from five schools in three different districts and spoke seven languages.

#### **Stewardship of resources (enhancing resources through private philanthropy; promote sustainable built and natural environments; balance economic and environmental improvements in the region).**

- Paul Jepson, director of OSU's [Integrated Plant Protection Center](#), develops multi-faceted [approaches to limit the use of pesticides in Oregon's crops](#). The IPM methods have been well received by farmers and third-party certifiers. They were first adopted by the Food Alliance, a certification nonprofit, and then by the [Sustainable Agriculture Network](#) as the basis for its [Sustainable Agriculture Standard](#).
- Improving **Integrated Pest Management (IPM)** practices can have economic and environmental benefits by reducing unnecessary pesticide use while maintaining crop quality and yields. Extension specialists from OSU, Washington State University, and the University of Idaho developed train-the-trainer workshops to increase IPM knowledge throughout the Pacific Northwest. The impact was huge with follow-up surveys showing the learned concept was disseminated to a wider audience. This program received the 2017 Western Extension Directors Association Awards of Excellence.

#### **Technology as a strategic asset (share relevant information to make effective decisions; invest in information technology to enable educational innovation; enhance the quality of service in administrative processes).**

- In FY 2016/2017, OSU's **Professional and Continuing Education (PACE)** supported 27,675 OSU Extension online enrollments across 34 programs, from 26 county Extension offices and other areas within the Division. Nine of these registration items were online courses in Canvas. This marks the second year of enrollment support since the PACE-Extension partnership was forged and it saw a 460% increase in enrollments over the inaugural year of the partnership.
- OSU Extension completed the adoption, including the data entry phase, of **Digital Measures Activity Insights** as a tool to document and report on faculty accomplishments. Extension and the College of Agricultural Sciences partnered to establish a single instance of this software to meet multiple college's needs, streamline the integration process, and establish the ability for a single faculty profile for data collection regardless of multiple college/unit affiliations.
- OSU Extension participates in the **eXtension Ask an Expert** service, which takes online questions from the public and routes them to experts within OSU for answers and guidance. Through this tool, 3,774 questions were answered in 2016. This level of digital engagement is bridging the gap between traditional Extension staffing and digital natives.
  - Since the start of the program in 2011, Oregon experts have answered 20,538 questions
  - Questions are directed to 150 OSU faculty experts and more than 40 master gardeners
  - Standard is to have questions answered within 48 hours, and most are answered in 24 hours.
- Extension faculty currently maintain over 100 organizational accounts across Facebook, Twitter, Instagram and Pinterest, creating an **active social media network to engage and amplify messages** across Oregon and beyond.
- OSU was awarded \$4.7 million from USDA to start the **WAVE~Ripples for Change project**, an obesity prevention program for high school athletes through OSU 4-H Soccer and afterschool programs using virtual- and real-world experiential learning. Active teens engage in real-world and virtual-world group lessons and 3D animation games about sports nutrition, life skills building, including a real-world scenario where teens learn how to plan a healthy budget meal, grocery-shop, start a garden, harvest fresh produce, taste new vegetables, apply kitchen and knife safety, cook healthy inexpensive meals at home, and stay active in all seasons. As of year four (of five), the WAVE Project has reached 721 high school soccer players from 13 high schools in Oregon. More than 100 college students (high school, undergraduate, graduate, Honors, post-doc, and non-OSU interns) were trained at various capacity across four multidisciplinary teams (health, field, sensor, and virtual learning environment).

Oregon State University  
**Statewide Performance Indicators**  
**Extension Service:**  
**FY 1997-98 to FY 2016-17**

<b>Fiscal Year</b>	<b>State Resource Expenditures</b>	<b>All Other Expenditures</b>	<b>Other/State Ratio</b>
FY 1998	\$14,899,386	\$10,391,007	0.70
FY 1999	\$15,853,679	\$11,887,702	0.75
FY 2000	\$18,023,764	\$12,272,945	0.68
FY 2001	\$18,325,564	\$15,954,704	0.87
FY 2002	\$17,911,438	\$16,656,079	0.93
FY 2003	\$17,422,891	\$15,044,898	0.86
FY 2004	\$18,561,321	\$11,408,971	0.61
FY 2005	\$16,037,870	\$15,581,665	0.97
FY 2006	\$19,336,636	\$14,215,381	0.74
FY 2007	\$20,076,088	\$14,936,915	0.74
FY 2008	\$21,746,832	\$14,662,333	0.67
FY 2009	\$20,895,548	\$19,489,256	0.93
FY 2010	\$21,161,731	\$16,231,030	0.77
FY 2011	\$17,925,823	\$18,635,181	1.04
FY 2012	\$18,357,067	\$17,109,615	0.93
FY2013	\$19,106,335	\$17,036,464	0.89
FY2014	\$19,555,668	\$17,176,894	0.88
FY2015	\$20,353,858	\$19,584,965	0.96
FY2016	\$22,344,755	\$18,374,564	0.82
FY2017	\$21,163,535	\$21,559,221	1.02

Source: OSU Extension Service; Tiffany Gillis (August 2017)

**In 26 of 36 Oregon counties, citizens have voted to support county-based Extension programs with local taxes. In 2018, Morrow and Umatilla counties will have service districts on the ballot.**