



PUBLISHED BY THE OREGON STATE BOARD OF EXAMINERS FOR ENGINEERING AND LAND SURVEYING

The mission of the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) is to regulate the practice of engineering, land surveying, photogrammetric mapping, and water right certification in the state as they relate to the welfare of the public in safeguarding life, health and property.

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Outgoing Board member

Carl Tappert, PE, CWRE, is leaving the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) after serving eight years as a Board member. Tappert joined the Board in 2006.

Tappert most recently served as the president of the Board, as the chair of the Law Enforcement Committee and as a member of Joint Compliance Committee and the Modifying Designs and Documents Task Force. During his time with OSBEELS, Tappert also served as the vice president of the Board for two years, as the chair of the Finance and Professional Practices Committees and as a member of the National Council of Examiners for Engineering and Surveying (NCEES) Foreign Experience Task Force.

Tappert said his service on the Board was a tremendous honor and a highlight of his career. "The most fulfilling aspect of it, for me, is being part of the policy discussions

related to professional practice," Tappert explained. "There are some big issues, like right of entry, digital signatures or fire sprinklers that draw a lot of attention, but there are countless smaller issues that may only affect a few registrants, but are equally important. The discussions of these were always thought provoking and intellectually stimulating."

These discussions often resulted in changes to procedures and policies for OSBEELS, which Tappert said is the goal of the Board. "Being comprised of engineers and surveyors, the Board is always looking for solutions," he explained. "It's just what we do and I think it is one of the reasons we have been so effective." Tappert said his personal goal during his time on the Board was to make processes simpler and more concise and to remove unnecessary administrative steps, when possible. He said he believes the Board has successfully streamlined a number of processes;

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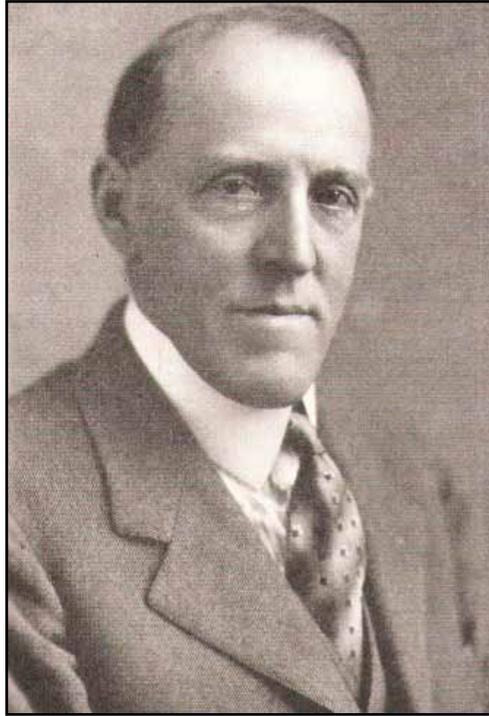
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Who came first?

A brief history of the first registered professionals in Oregon

Oregon has been licensing engineers since the establishment of the Engineering Examiners Board in 1919. In the first year of operation, the Board issued 1,086 licenses. Of those, the very first license was issued to Olaf Laurgaard on November 8, 1919, who was an accomplished and lauded engineer in Portland. Laurgaard was also the first Board president, serving from June 30, 1919 through 1935.

Laurgaard was born in Norway on February 21, 1880 and would go on to graduate from the University of Wisconsin in 1903. His most significant engineering work was done when he was the project engineer for the State of Oregon and the city engineer for Portland. Laurgaard prepared the original plans for the Portland Waterfront Project in 1913, which provided flood control



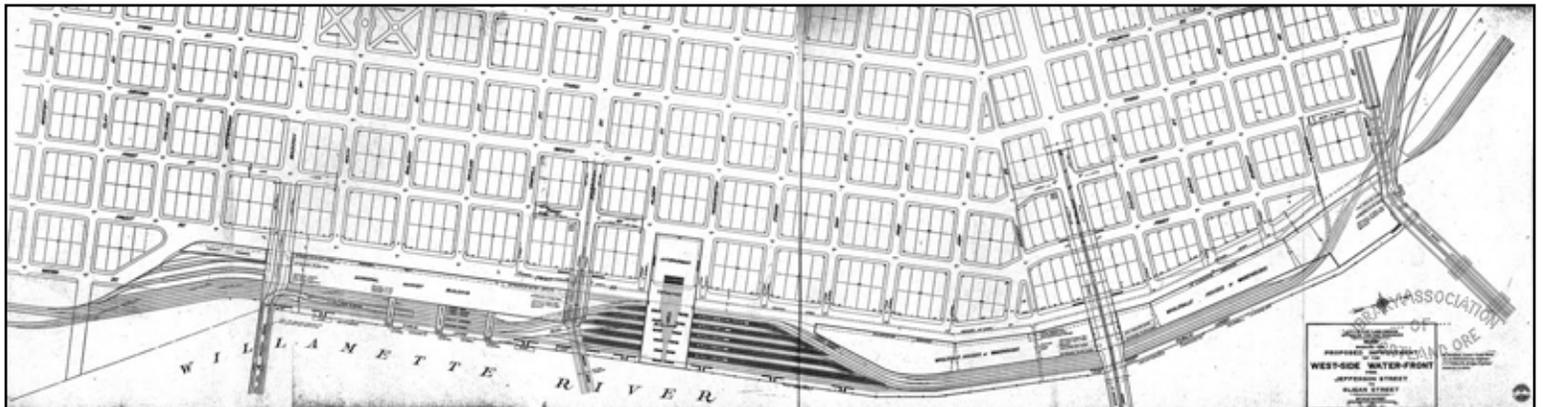
Olaf Laurgaard's Board portrait.

Current Board member Anne Hillyer, a registered professional photogrammetrist (RPP) is Laurgaard's great-granddaughter.

and fire abatement, created a sea wall from Jefferson St. to Glisan St. with a recreational area on top and set aside the area between the

Hawthorne and Morrison Bridges for an undeveloped public market area. He was also the designer of the Front Street Intercepting Sewer and Drainage System Project, which used a harbor wall to add needed space to the crowded area, protected downtown Portland from Willamette River flooding and solved the sewage backup issues plaguing the downtown area at the time.

Laurgaard's work earned him the praise of peers and superiors throughout the state. One superior described him as "one of the most efficient men I've ever come in contact with." In *The Blue Book of Portland and Adjacent Cities*, H. James Boswell wrote that he "did not believe that Portland has even had a man in that office (city engineer) who was the superior of O. Laurgaard, one of the most highly capable men in that line of work." Laurgaard also served



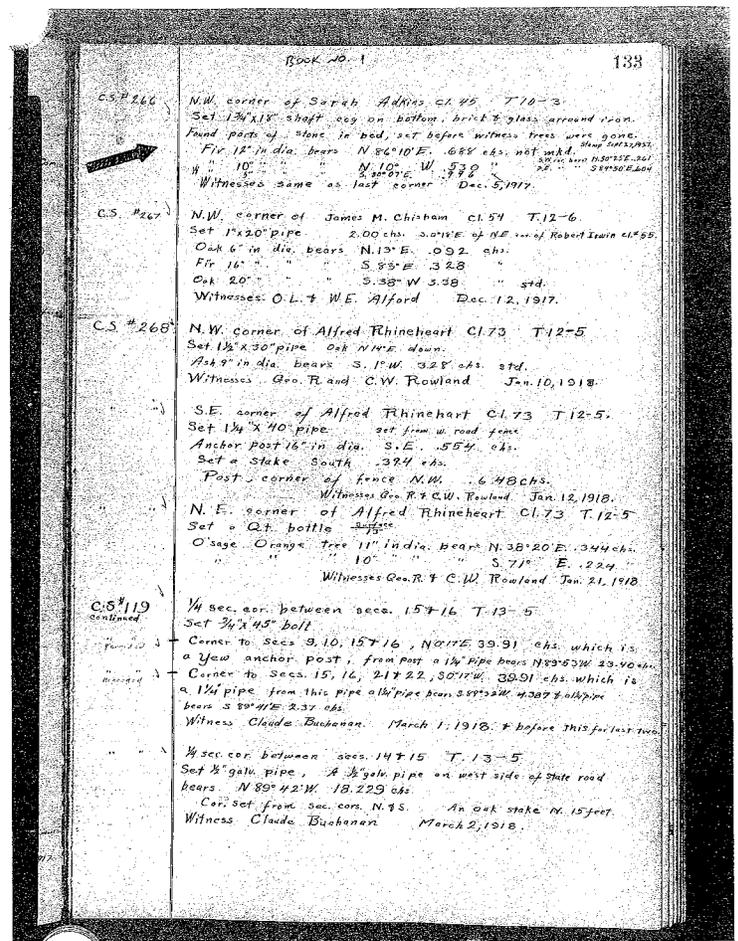
A portion of Laurgaard's design for the Westside Waterfront in Portland.

as the president of the National Council of State Boards of Engineering Examiners (later the National Council of Examiners for Engineering and Surveying – NCEES) from 1932 until 1933; in the Oregon Legislature and as the Oregon Chapter President and National Vice President of the American Association of Engineers. Laurgaard died in 1945.

During the 11th Biennium, the Board began regulating the practice of land surveying. The Professional Land Surveyors' Law, enacted by the 1943 Legislature, established licensure for surveyors and regulation of the profession. Following the law's enactment, the Board received 195 applications from those practicing land surveying who sought licensure under a grandfather clause; 181 were approved. The first land surveying license was issued on March 10, 1944 to W.C. Galloway, who also held engineering license number 44.

Galloway was born on March 30, 1886 and served as the Benton County Surveyor from 1913 until 1936. Some of his best known work incorporated both engineering and land surveying. As the Benton County Engineer, Galloway was responsible for surveying, preparing maps, estimating costs and performing the construction engineering for a number of Market Road improvement projects between 1920 and 1922. Galloway worked on the Market Roads between Blodgett and Devill, Granger and Albany, Wren and Alder, and Alsea and Lincoln City. He also provided the engineering work to eliminate the steep grades and red clay roadbed at Gellatley Hill on the Wren - Blodgett portion of Corvallis - Newport Road in 1919. As the Benton County Surveyor, Galloway was known for using glass quart bottles to mark his corners. Galloway died in 1949.

Through the adoption of Senate Bill 55 in 2005, photogrammetric mapping became the most recent profession regulated by OSBEELS. Individuals who wish to become registered as photogrammetrists sit for



This excerpt from one of Galloway's field books has entries from 1917 and 1918.

the national fundamental land surveying examination, followed by a state-specific professional photogrammetric mapping examination. Thomas Pagh was the first photogrammetrist licensed in Oregon on March 14, 2006, based on prior practice. Pagh started his career in 1963 with a summer job for the Bureau of Land Management (BLM). During his employment, Pagh learned to use a stereoscope and said that seeing the ground in 3D for the first time sealed his photogrammetric future.

During his time at Oregon State University, Pagh took an introductory photogrammetry course and joined the American Society for Photogrammetry, now known as the American Society for Photogrammetry and Remote Surveying (ASPRS). After becoming a certified

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REGISTRANTS, from Page 3

photogrammetrist through ASPRS, Pagh served as the Columbia River Region's president, vice president and national director. Pagh has worked in the private sector as well as for the BLM, Bureau of Public Roads (now known as the U.S. Department of Transportation), the Army Corps of Engineers, the U.S. Forest Service and currently works for the Natural Resources Conservation Service.

Pagh has worked on a number of unique projects during his photogrammetry career. One project provided high accuracy topographic maps and orthophotos for use in designing TREX, a \$2 billion multi-modal design build in Denver, Co. Another project required similar data to assist in the design of the Gateway to Clackamas Town Center light rail line in Portland. A third project provided LiDAR data and orthophotos to the Oregon Bridge Delivery Partners to assist in the rebuilding of 18 southern Oregon bridges. As soon as licensure was offered in Oregon, Pagh said he submitted his application for registration. He said he highly recommends that any future practitioners of photogrammetry consider obtaining their photogrammetric registration through the Board.

Additional firsts in Oregon professional registrations include Orville Gaylor, the first traffic engineer by prior

practice and Bruce A. Estes, PLS, the first certified water right examiner. In 1985, Oregon engineering laws were amended to permit non-professional engineers to become traffic engineers. In 1988, 17 individuals were admitted to the practice of traffic engineering by prior practice. Under this registration, these individuals were only permitted to practice traffic engineering and they were given a diamond-shaped stamp to allow the public to differentiate between these traffic engineers and professional engineers who are especially qualified in traffic engineering. Gaylor was licensed on April 3, 1986 and retired his license in 2009.

Estes was on the forefront of bringing water right examination to Oregon. In 1986, the Water Resources Commission was interested in turning water right surveys over to the private sector instead of being conducted by the state and requested assistance from Estes, who was running the Survey-Certificate Section for the State Engineer's Office. Estes went to Nevada to investigate how its state engineer's office managed its private water right surveyors. In 1987, OSBEELS absorbed administrative oversight for certified water right examiners (CWRE), in accordance with Oregon Revised Statute (ORS) 537.797. Prior to 1987, there was no requirement for water right

examiners to be certified; however, new statutory provisions determined that certification was required for claims of beneficial use and to prepare application maps for new permits and transfers. Estes traveled across the state presenting workshops for engineers and land surveyors to spread the word about water right examination.

An examination would be required for individuals seeking certification as water right examiners. WRD asked Estes to write the examinations from 1987 until 1990. When he took his certification examination, it was graded by the executive secretary of OSBEELS, while Estes was responsible for grading all other examinations. Estes was granted certification on November 19, 1987 and is still an active practitioner in Oregon. He would later write examinations for OSBEELS until this responsibility was transferred back to WRD.

During his career, Estes has worked primarily with irrigation, but he has also produced claims of beneficial use for nurseries, municipal, quasi-municipal, group domestic, manufacturing, commercial and industrial applications. He said he enjoys his current work in helping farmers and ranchers comply with water code. He also said he strongly urges surveyors, engineers or

geologists to seek certification as water right examiners because of the beautiful work environments and reward of helping good people.

Since 1974, the Board has carefully selected structural engineering examinations to ensure competency and maintain public protection. However, a separate structural engineering registration was not required until the adoption of ORS 672.107 in 1999. ORS 672.107 says that “significant structures” are required to be designed by a structural engineer. To enable compliance, the Board granted registration

to individuals demonstrating acceptable levels of prior structural engineering practice. In all, approximately 112 individuals were granted registration by prior practice between 1999 and 2001.

Thousands of engineers, land surveyors, photogrammetrists and water right examiners have been granted registration since Laurgaard became Oregon’s first registered professional engineer. While nearly a century has passed, the mission of OSBEELS and the duty of its registrants has remained the same – to safeguard the life, health and property of the public. 🇺🇸



Joseph E. Worth being presented the first engineer in training (EIT) certificate by Glenn W. Holcomb, president of the Board. Worth attained the highest score on his EIT examination, the first given in Oregon, on March 18, 1960. Worth was registered as a PLS from 1960 to 2008 and as a PE from 1962 to 2008.

Engineering licensure history

Engineering licensure in the United States began in 1907 when Wyoming sought to solve the problem of untrained individuals working as engineers and land surveyors. Oregon soon followed suit and established the Engineering Examiners Board in 1919. The Board’s first meeting was at the Oregon Building in Portland on July 11, 1919 at 10:30 a.m. At this time, the standards required for licensure varied between states and there was no reciprocity. To improve professional standards and

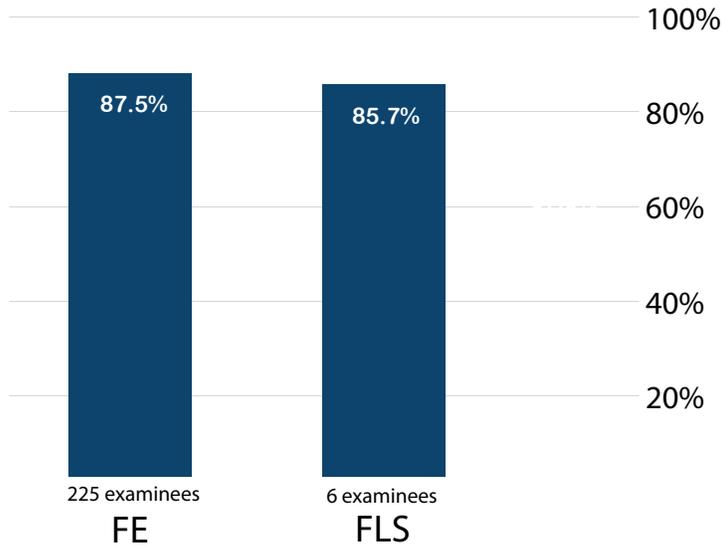
allow for interstate practice, the Iowa State Board of Engineering Examiners invited representatives from the 10 established state engineering boards to meet and discuss forming a national engineering board. This meeting, held on November 8, 1920, would mark the beginning of the National Council of Examiners for Engineering and Surveying (NCEES). Oregon’s Board did not send a representative.

During the Oregon Board’s first biennium, 1,189 certificates were

granted to engineers from 17 states and Canada. By comparison, there were 3,791 certificates granted to engineers and land surveyors during the most recent biennium; from all 50 states, 3 U.S. territories, and 31 countries. The first biennium also brought \$18,661 in income to the Board and the expenditures from 1919 through 1921 totaled \$5,134.82. Today’s Board has an adopted budget of expenditures of \$3 million and had an operating budget of approximately \$3 million for the 2011-2013 biennium. 🇺🇸

Spring 2014 Examination Statistics

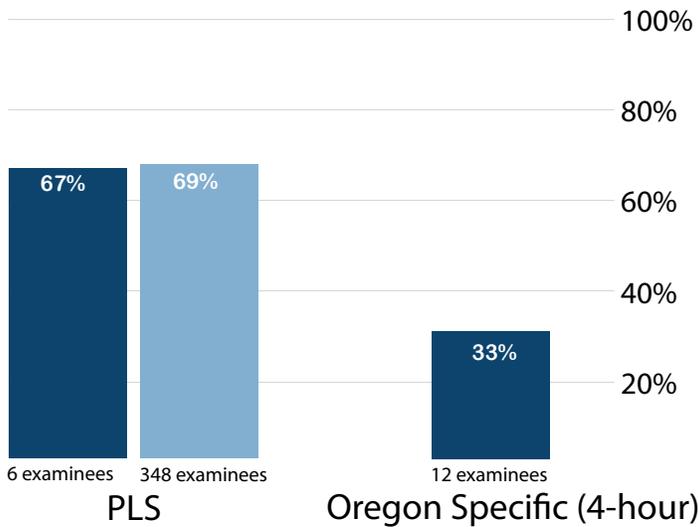
Fundamentals Exam
 January - June CBT exams
 Oregon applicants only



Professional Surveying Exam

First Time Takers

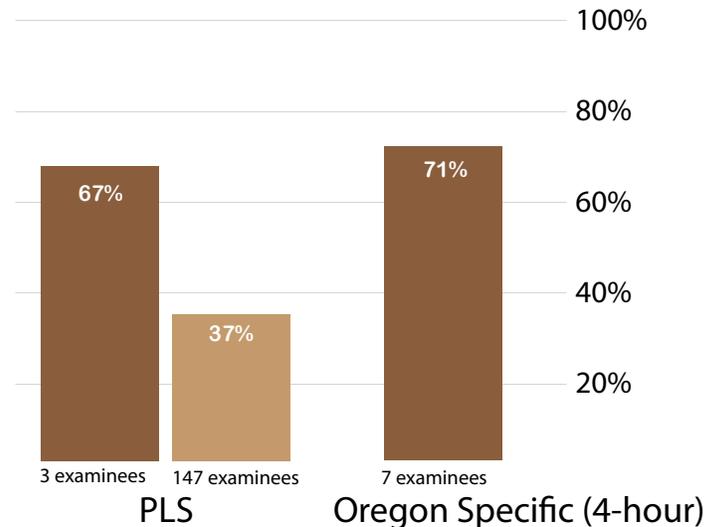
■ Oregon % Passed
 ■ National % Passed



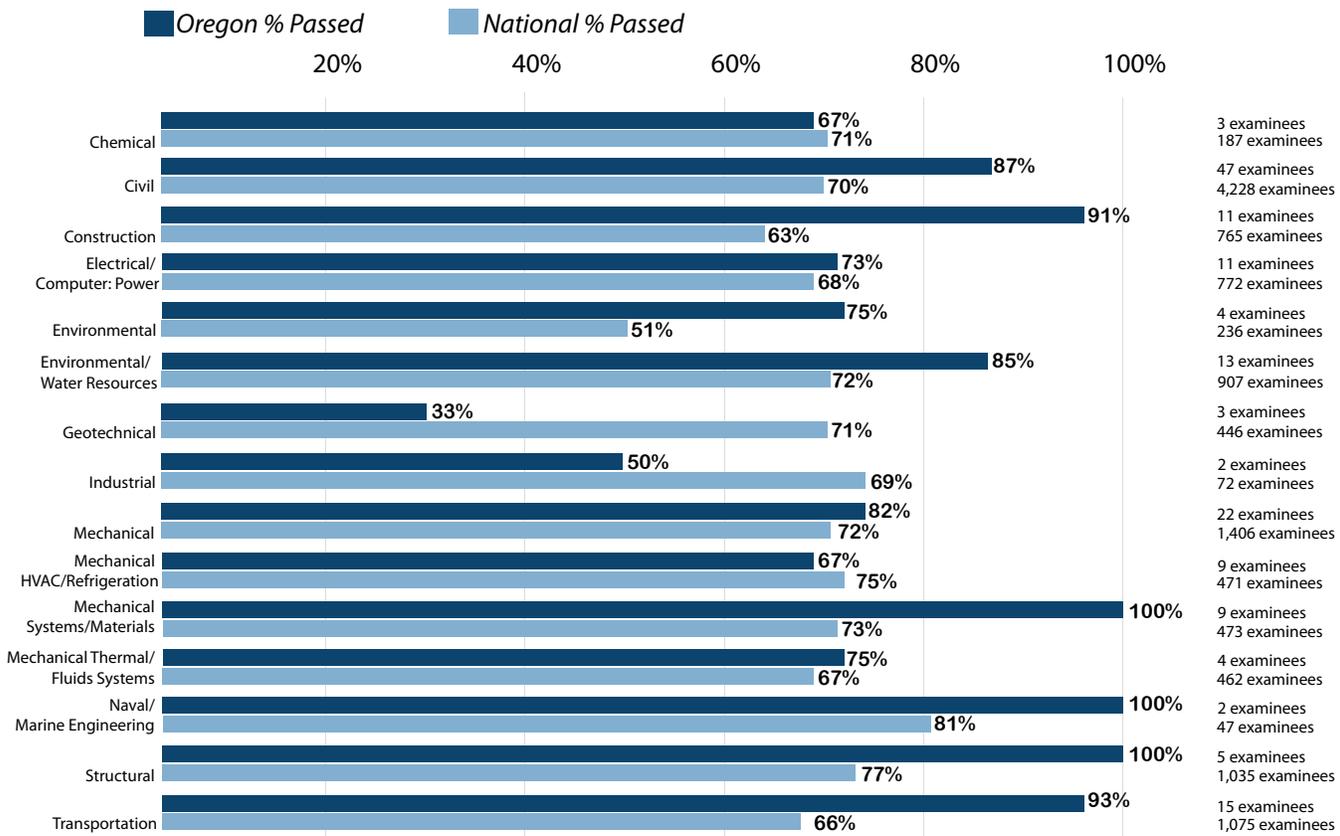
Professional Surveying Exam

Repeat Takers

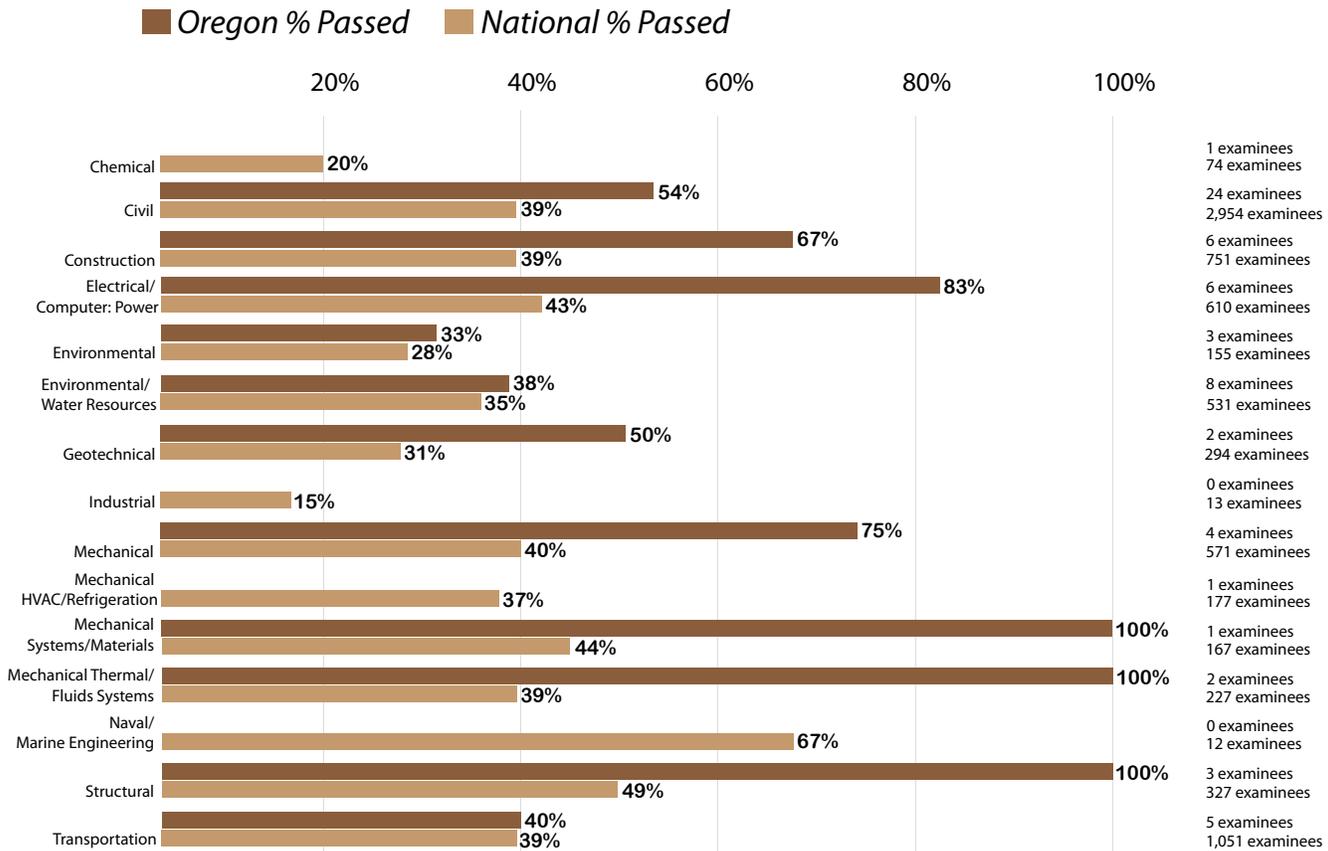
■ Oregon % Passed
 ■ National % Passed



Professional Engineering Examination Statistics First Time Takers



Professional Engineering Examination Statistics Repeat Takers



Investigation and Enforcement

Law enforcement cases with sanctions from April 2, 2014 to June 1, 2014

2749 - Software Technology Group

The Board issued a Default Final Order against Software Technology Group (STG), finding that the company offered engineering services without a registered professional on staff. STG was assessed a \$750 civil penalty for violations of ORS 672.045, ORS 672.020 and OAR 820-010-0720.

2770 - Eric Strickland

The Board issued a Final Order against Eric Strickland, finding that he engaged in the practice of engineering without a license. Mr. Strickland was assessed a \$1,000 civil penalty for violations of ORS 672.002(1)(c).

2782 - Chander P. Nangia

The Board issued a Final Order against Chander P. Nangia, PE, finding that he failed to report a number of sanctions from other jurisdictions to the Board, as required. Mr. Nangia entered into a settlement agreement to permanently retire his registration for a violation of OAR 820-020-0045(4).

2790 - Kenneth Cobb

The Board issued a Final Order against Kenneth Cobb, PE, finding that he failed to comply with CPD

requirements. Mr. Cobb entered into a settlement agreement to pay a \$200 civil penalty for a violation of OAR 820-020-0615(8).

2794 - Tomislav Z. Gajic

The Board issued a Final Order against Tomislav Z. Gajic, PE, finding that he failed to comply with CPD requirements. Mr. Gajic was assessed a \$1,000 civil penalty and a 60-day suspension for a violation of OAR 820-010-0635(1).

2804 - Randall D. Raines

The Board issued a Final Order against Randall D. Raines, PE, finding he failed to comply with CPD requirements. Mr. Raines was assessed a \$500 civil penalty for a violation of OAR 820-020-0015(8).

2805 - Jae Hwal Shin

The Board issued a Final Order against Jae Hwal Shin, PE, finding he failed to comply with CPD requirements. Mr. Jin was assessed a \$500 civil penalty for a violation of OAR 820-020-0015(8).

2812 - David J. Collier

The Board issued a Final Order against David J. Collier, PLS, finding that he violated right of entry requirements. Mr. Collier was assessed a civil penalty of \$250 for a violation of ORS 672.047.

2814 - Kenrick R. Luck

The Board issued a Default Final Order against Kenrick R. Luck, PE, finding he failed to comply with CPD requirements. Mr. Luck was assessed a \$1,000 civil penalty and a 60-day suspension for violations of OAR 820-020-0015(7) and OAR 820-010-0635.

2815 - James A. Miller

The Board issued a Default Final Order against James A. Miller, PE, finding he failed to comply with CPD requirements. Mr. Miller was assessed a \$1,000 civil penalty and a 60-day suspension for violations of OAR 820-020-0015(8) and OAR 820-010-0635.

2816 - Bryce N. Mochrie

The Board issued a Default Final Order against Bryce N. Mochrie, PE, finding he failed to cooperate with the Board by not responding to attempts to gain his compliance with an audit. Mr. Mochrie was assessed a \$500 civil penalty for a violation of OAR 820-020-0015(8).

2859 - Douglas M. Ferguson

The Board issued a Default Final Order against Douglas M. Ferguson, PLS, finding he failed include a survey date on a survey map filed in Morrow County. Mr. Mochrie was assessed a \$500 civil penalty for a violation of ORS 209.250(3)(b). ■

2014 Symposium



Innovation in Industry

September 19, 2014

Salem Conference Center, Salem, Oregon

Check-in begins at 7:30 a.m.

Lunch and keynote presentation will begin at 11:30 a.m.

Registrant Information	
Name: _____	<input type="checkbox"/> PE <input type="checkbox"/> PLS <input type="checkbox"/> RPP <input type="checkbox"/> CWRE
Preferred Name on Badge: _____	
Special Accommodations: _____	Dietary Needs: _____
Contact Information	
Mailing Address: _____	
City: _____	State: _____ Zip: _____
Phone: _____	Email: _____
Emergency Contact Information	
Name: _____	Phone: _____

To Register...

Completed forms can be returned to OSBEELS by:
Fax: 503-362-5454

Email: osbeels@osbeels.org

Standard Mail:
OSBEELS
670 Hawthorne Ave. SE
Suite 220
Salem, OR 97301

Forms and additional Symposium information can be found online at www.oregon.gov/OSBEELS or on Facebook at www.facebook.com/OSBEELS

For questions call 503-362-2666

Please choose one course from each time slot.

ENGINEERING

- 8:30 a.m. - 9:50 a.m.
Prefabricated and Modular Construction
- 10 a.m. - 11:20 a.m.
Smart Grids
- 1:10 p.m. - 2:40 p.m.
Innovation in Infrastructure Task Force
- 2:50 p.m. - 4 p.m.
Digital Signatures

LAND SURVEYING/PHOTOGRAMMETRY

- 8:30 a.m. - 9:50 a.m.
Route Mapping for Space Shuttle Movement
- 10 a.m. - 11:20 a.m.
Discussion Panel: The Future of Land Surveying
- 1:10 p.m. - 2:40 p.m.
Unmanned Aircraft Systems for Aerial Mapping
- 2:50 p.m. - 4 p.m.
Land Administration for Sustainable Development

Select payment method (choose one) \$80 fee includes lunch, registration materials, and refreshment breaks. Registrants earn 1 PDH for every 1 hour in attendance.			
<input type="checkbox"/> Check or Money Order (payable to OSBEELS)		<input type="checkbox"/> Cash	Amount enclosed:
<input type="checkbox"/> Debit or Credit Card (Visa, MasterCard, Discover, or AmEx)		Total charge to card:	
Card number	Exp. date	Security code	Billing Zip/Postal Code
Payment Signature (serves as payment authorization if paying by debit or credit card)			
Signature		Date (Mo/Day/Yr)	

Refunds and Cancellations - Only written refund requests will be considered. Requests must include name of attendee and method of payment. Requests may be submitted via standard mail, email, or fax to OSBEELS. Refund requests received less than 10 days prior to the symposium will not be granted. However, registration fees may be transferred to another attendee at no additional charge.

Hotel Information

The Grand Hotel, 201 Liberty Street SE, Salem, OR 97301 / Toll Free: 877-540-7800 / www.grandhotelsalem.com. Symposium attendees are eligible for a special group rate. Please inform staff that you are with the OSBEELS event to secure this rate.

Upcoming professional development for CWREs

The Oregon Department of Water Resources (WRD) will be having the 2014 Fall CWRE workshops in October. The following is a list of dates and locations for the workshops.

October 7 - Blue Mountain Conference Center, LaGrande

October 9 - McMenamins Old St. Francis School, Bend

October 15 - Taprock Event Center, Grants Pass

October 22 - Fish & Wildlife Headquarters, Salem

October 23 - Fish & Wildlife Headquarters, Salem

Registration packets will be mailed out in July to all current CWREs by the WRD. Deadline for registration will be August 29, 2014. If you have questions, please contact Leona Albin at (503) 986-0818 or by email: leona.m.albin@wrd.state.or.us. ■

TAPPERT, from Front Page

including continuing professional development reporting, budgeting, law enforcement case resolution and examination and registration application process. "I think the improvements that have been made to the licensure application process have been tremendous," Tappert said. "Through a series of minor

adjustments, we have dramatically decreased the amount of time it takes to process applications and much of the credit for this is owed to Staff."

Tappert said having a full-time job with Rogue Valley Sewer Service, a wife and four children and a small

farm will continue to keep him busy after he leaves the Board, but he said he enjoyed being involved with the state and may look for other opportunities to do so in the future.

The Board and OSBEELS staff wish Tappert the best in his future endeavors. ■

Friendly Reminders

Registration renewal

Not sure if your registration(s) is current? Visit the OSBEELS website at www.oregon.gov/osbeels and click on the "Find a Licensee" link to confirm your registration(s) status.

Employer Checks

If your employer sends a check for your renewal, please ensure that it includes your registration number(s) and your Continuing Professional Development Organizational Form

is attached. If these items are not included, it will delay the renewal process.

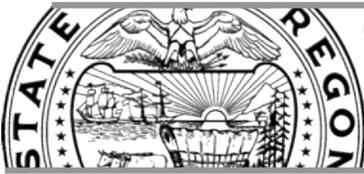
Social Security Number

To comply with child support enforcement and tax administration law, OSBEELS requires that all applicants and licensees provide their Social Security numbers. The Oregon Revised Statute (ORS) 25.785, specifically requires that the Social Security number be recorded on an application for,

or form for renewal of, a license, certificate or registration. If you have not been issued a Social Security number, OSBEELS will accept a written certification to fulfill this requirement.

Deceased Registrants

If you are aware of a registrant who has passed on, please call (503) 362-2666. OSBEELS would like to avoid sending renewal notices and other communications to the families. ■



Oregon

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FOR ENGINEERING &
LAND SURVEYING

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You may return this form by email to osbeels@osbeels.org, by fax to (503) 362-5454 or by mail to the address listed above. Please note, the contact information in which Board correspondence is sent will not be changed by submitting this form. Please utilize the Name/Address Change form to comply with Oregon Administrative Rule (OAR) 820-010-0605.

Registrant Information

First name (personal name)	Middle name or initial	Last name (family name)
Email Address		Registration or certificate number, if applicable

To receive the print edition of The Oregon Examiner, please complete the information below.

Home Business

Mailing address (include any apartment/suite number)

City	State or Province	Zip/Postal code	Country
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