

Understanding and identifying teacher shortage areas in Oregon

An analysis of statewide data to provide insight into recent trends in teacher supply and demand

For the last several years, major news outlets both nationally and within Oregon have reported on the extreme shortage of teachers to staff primary and secondary schools. These reports typically don't consider dimensions such as subject area, grade level, or geographic regions. As a result, recent reporting has failed to present a complete picture of teacher supply and demand in Oregon. This report provides a more detailed analysis of local teacher shortages.

Each summer, districts and principals across Oregon strive to find the most qualified candidates to fill their classrooms for the coming school year. Many experience regular and predictable difficulty hiring candidates that fit their schools' needs. However, while research indicates that teacher shortages exist, it also indicates that they should not be characterized as a statewide crisis. Rather, teacher shortages are a series of smaller, localized concerns. Many academic subjects and school districts have a more than adequate candidate pool of licensed teachers. Nonetheless, an inability to find qualified candidates in a shortage area can have serious consequences for Oregon students.

The purpose of this report is to highlight where shortages exist, in order to encourage teacher candidates and educator preparation programs to consider the needs of the state in their training and decision making. The report serves as a detailed supplement to the identification and submission of teacher shortage areas to the U.S. Department of Education for federal loan forgiveness programs.¹

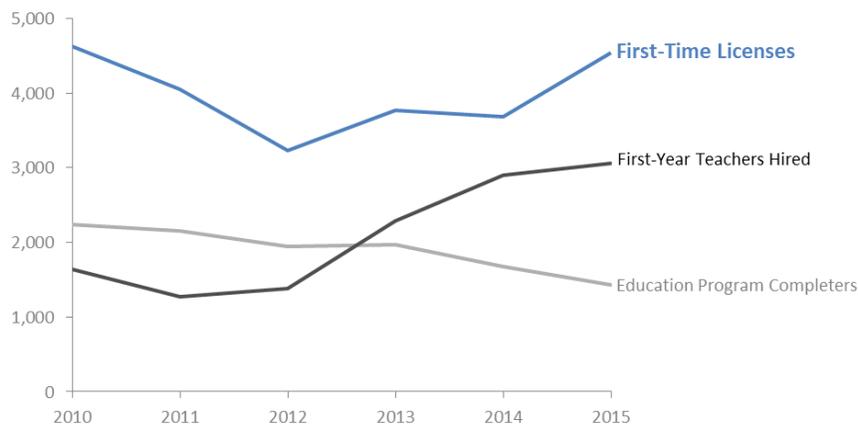
Statewide trends in new teacher supply and demand

The declining number of education program completers in Oregon is often cited as evidence of a statewide teacher shortage. However, Ore-

Figure 1:

First-year teacher supply and demand

New licensees outpace district demand, 2010-2015



Sources: TSPC Licensure, Title II reporting, Oregon Department of Education

¹ Details on loan forgiveness and previously identified shortage areas can be found on the [USED website](#).

gon annually licenses more first-time teachers than are hired by primary and secondary schools.² Figure 1 demonstrates the number of first-time licensees is consistently greater than the number of first-year teachers employed in Oregon public schools, indicating that there are surplus teacher candidates every year.³

Oregon also licenses more first-time teachers than the number of students who graduate from education programs within the state. The gap between program completers and first-time licenses granted can be explained in part by out-of-state graduates who move to Oregon. These data suggest that, contrary to some reports, Oregon has many licensed teachers who are not being hired.

A closer look at identifying shortages

Although the number of teaching licenses issued in Oregon is growing, shortages still appear to exist. Some have been identified through surveys and interviews with principals and other hiring agents.⁴ Shortages have also been identified through an analysis of job postings and hiring fairs.⁵ These data indicate that shortages are concentrated in specific content areas and geographic regions.

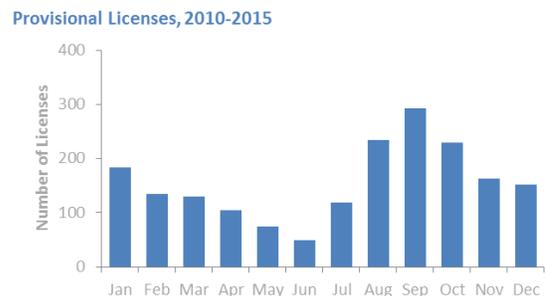
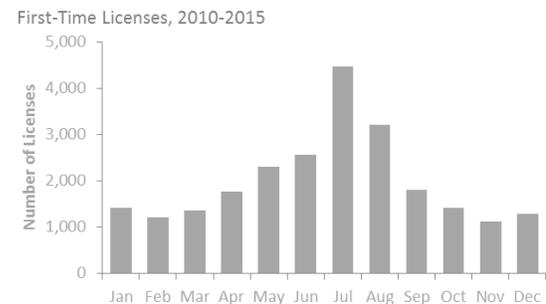
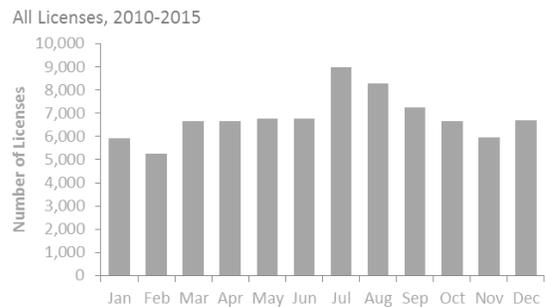
This report utilizes two types of data to identify the academic areas and geographic regions that are experiencing shortages in Oregon. The first method is analysis of licenses issued by the Teacher Standards and Practices Commission (TSPC). TSPC has defined a set of rigorous requirements to obtain an Initial Teaching license and endorsement in a teacher’s specialty of

choice. Under certain circumstances, some of those requirements can be waived and a provisional license can be issued to teachers on a temporary basis. These licenses are classified as “emergency,” “expedited,” “restricted,” “conditional,” “limited,” or “interim” licenses, all of which are referred to as provisional licenses within this report.

These licenses require a joint request from the candidate and the hiring district. The licenses are typically processed on an expedited timeline, and indicate that the hiring school selected a candidate that did not meet all requirements to be licensed for the position. Assuming schools only hire unlicensed teachers when no licensed teacher is available, these provisional licenses serve as

Figure 2:

Licenses issued, by month



Source: TSPC Licensure

² First-time teacher licenses are Initial Teaching or Initial I Teaching licenses issued to individuals who haven’t held an Oregon teaching license within the previous ten years.

³ First-year teachers are those who have not previously been employed in the state of Oregon.

⁴ For example, see the [Educator Supply and Demand surveys](#) conducted jointly by the Oregon School Personnel Association and the former Oregon Education Investment board through 2014.

⁵ For example, see data collected by the Oregon Professional Educator Fair.

a good proxy to indicate where shortages occur.

Data from TSPC indicate that provisional licenses are often used to bring candidates into positions that are otherwise unfilled at the start of the school year. Figure 2 displays license issue months for various categories of licenses.

The graphs indicate the month that licenses were processed, for all licenses issued between 2010 – 2015. The trend for all licenses, including additional endorsements earned and renewals by current Oregon teachers, indicates that there is a fairly even distribution of license issue dates throughout the calendar year. First-time licenses, on the other hand, are typically issued in July and August, in time for the start of the school year. These are primarily candidates who graduate and apply for licenses in April and May.⁶

The provisional licenses exhibit a very different trend. These licenses are issued primarily in August through October, when school districts scramble to fill any remaining open teaching positions. Since these licenses are expedited, the applications are likely submitted within a month of their issuance. In other words, provisional li-

censes are issued to late-season hires in positions that were most likely difficult to fill. Provisional license issuance also exhibits a secondary peak in January, likely due to replacement of teachers who leave the school at the end of the first semester.

These data are not intended to represent every teaching position that is unfilled at the start of the school year or filled by an out-of-field teacher. In fact, provisional licenses are issued at very low rates relative to all other license types (see Figure 3). However, the rates at which these licenses are issued across endorsement categories provides an indicator of which subject areas tend to be difficult to fill with standard recruiting practices.

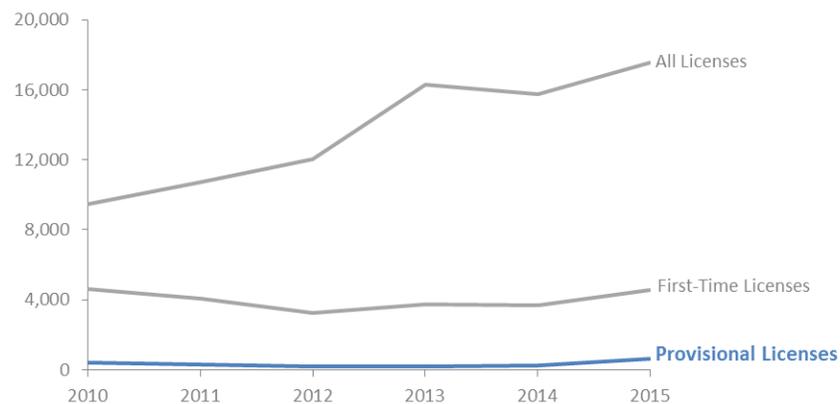
832

During the 2015-2016 school year, 832 provisional licenses were issued, up 237% from the previous year.

Figure 3:

Licenses issued annually, by type

Provisional licenses granted relatively infrequently, 2010-2015



Source: TSPC Licensure

⁶ According to TSPC, applications typically take 3 – 4 months to process.

Examining provisional licensing rates for the 2014-2015 school year

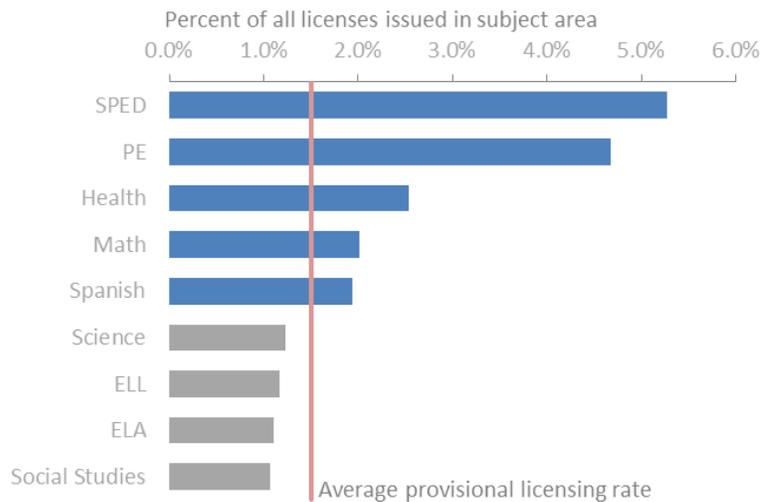
The preceding analysis focused on trends in teacher supply and demand across the past five years. The following is an analysis of data from the 2014 – 2015 school year, the most recent year for which complete data are available. The corresponding provisional licensing data are collected from July 2014 to June 2015, reflecting the issuing trends in Figure 2. While these data represent only one school year, trends in the previous years closely mirror the trends discussed in this report.

During the 2014-2015 school year, the TSPC issued a total of 247 provisional licenses, an increase of 27% from the previous year. These licenses were issued in nearly every subject area, but were concentrated in a few key subjects.

Five subjects had provisional licensing rates above the statewide average (see Figure 4). These subjects were special education, physical education (PE), health, math, and Spanish, which is largely consistent with data from school administrator surveys and historical shortage areas in Oregon.⁷ Physical education has not historically been considered a shortage area, but many districts are scrambling to hire teachers as they strive to meet the 2007 – 2017 phase-in of physical education requirements.⁸

The licensing data reveal even starker trends when basic and advanced courses are considered separately. Math provisional licenses are issued at rates well above the average. That figure is primarily composed of advanced math provisional licenses, which endorse teachers to teach math courses above the level of Algebra I. Advanced math provisional licenses are issued significantly more frequently than basic math provisional licenses. The opposite occurs for science licens-

Figure 4:
Provisional licensing rate, by subject endorsement



Source: TSPC Licensure

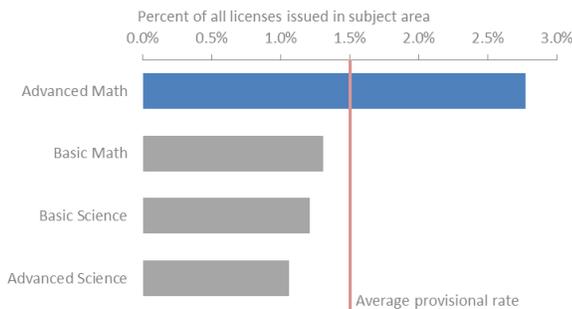
⁷ See COSA/CEdO survey, 2015.

⁸ All schools will be required to provide a minimum number of minutes of physical education instruction. For more information, see the Oregon Department of Education [webpage on the topic](#).

ing; advanced science provisional licenses are issued at a lower rate than basic science (see Figure 5).

Figure 5:

Provisional licensing rate, math and science



Source: TSPC Licensure

Again, these data are not intended to present a complete picture of teacher shortages or a count of unfilled positions. In addition, a low incidence of provisional licensing does not necessarily indicate that a shortage does not exist. For example, the low rate of advanced science provisional licensing could indicate that the shortage is so acute that there aren't candidates who are eligible for even the provisional license. This possibility is corroborated by the data in the following analysis.

Despite these limitations, aggregate analysis of provisional licenses is one of several reliable indicators that a shortage exists.

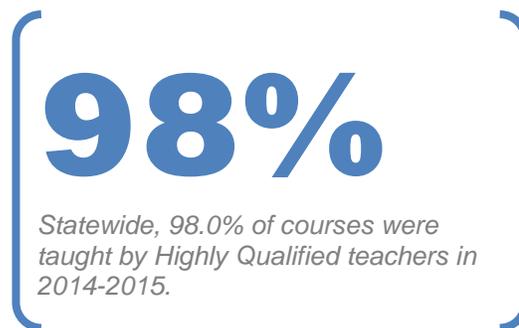
Measuring shortages by Highly Qualified teacher standards

The second measure of teacher shortages that this report explores is the percent of teachers considered Highly Qualified for their position. The designation of Highly Qualified was established by the 2001 reauthorization of the Elementary and Secondary Education Act, known as No Child Left Behind (NCLB).⁹ Under the act, a teacher is

considered Highly Qualified if he or she holds a bachelor's degree, has full state licensure, and can demonstrate knowledge of his or her subject area. The legislation required states to report progress towards a goal of 100% Highly Qualified teachers in all core subjects.

The Highly Qualified teacher data collected by the Oregon Department of Education indicate which core subjects and which geographic regions had made less progress towards the goal of 100% Highly Qualified. As compared to the TSPC licensing data, these data provide less information about specific subject-area needs because the requirements only apply to the core subjects: English, math, science, social science, art, and world languages. However, the Highly Qualified data reveal additional information about regional shortages that aren't captured in the TSPC licensing data.

Before the Highly Qualified standards were eliminated, Oregon schools had made significant progress towards the goal of 100% Highly Qualified. Across all regions and subject areas in 2014 – 2015, 98% of courses were taught by teachers who were considered Highly Qualified for their position. This rate was even higher for elementary school self-contained classrooms (see Figure 6).



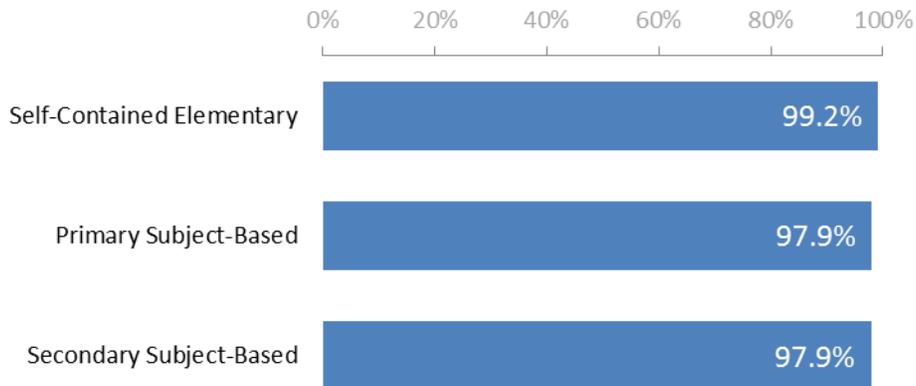
⁹ Though this law was recently supplanted by the 2015 Every Student Succeeds Act, the data collected by the Ore-

gon Department of Education under NCLB still provide a useful tool for analysis.

Figure 6:

Percent of courses taught by Highly Qualified teachers

Uniformly high rates, 2014-2015



Source: Oregon Department of Education

The aggregate data suggest that Oregon is not experiencing a statewide teacher shortage crisis. However, the percentages mask a significant shortage in specific areas. Across Oregon, 2,188 courses were taught by teachers who were not considered Highly Qualified. Each of these courses represents a difficult staffing decision made by a principal who had to report that their school was out of compliance with federal law.

Important trends emerge when Highly Qualified teacher data are disaggregated by county. There are significant disparities across counties in the proportion of courses taught by Highly Qualified teachers. Generally, more rural counties have greater difficulty hiring and retaining Highly Qualified teachers (see Figure 7, page 7).

The first panel of Figure 7 indicates that the greatest shortages during the 2014 – 2015 school year occurred in Lake, Gilliam, Grant, and Sherman counties. These trends shift by subject area. For example, the counties that had the

greatest shortage of secondary math teachers were Clatsop, Deschutes, Lake, and Union counties. In Lake county, only 67.5% of secondary math courses were taught by Highly Qualified teachers.

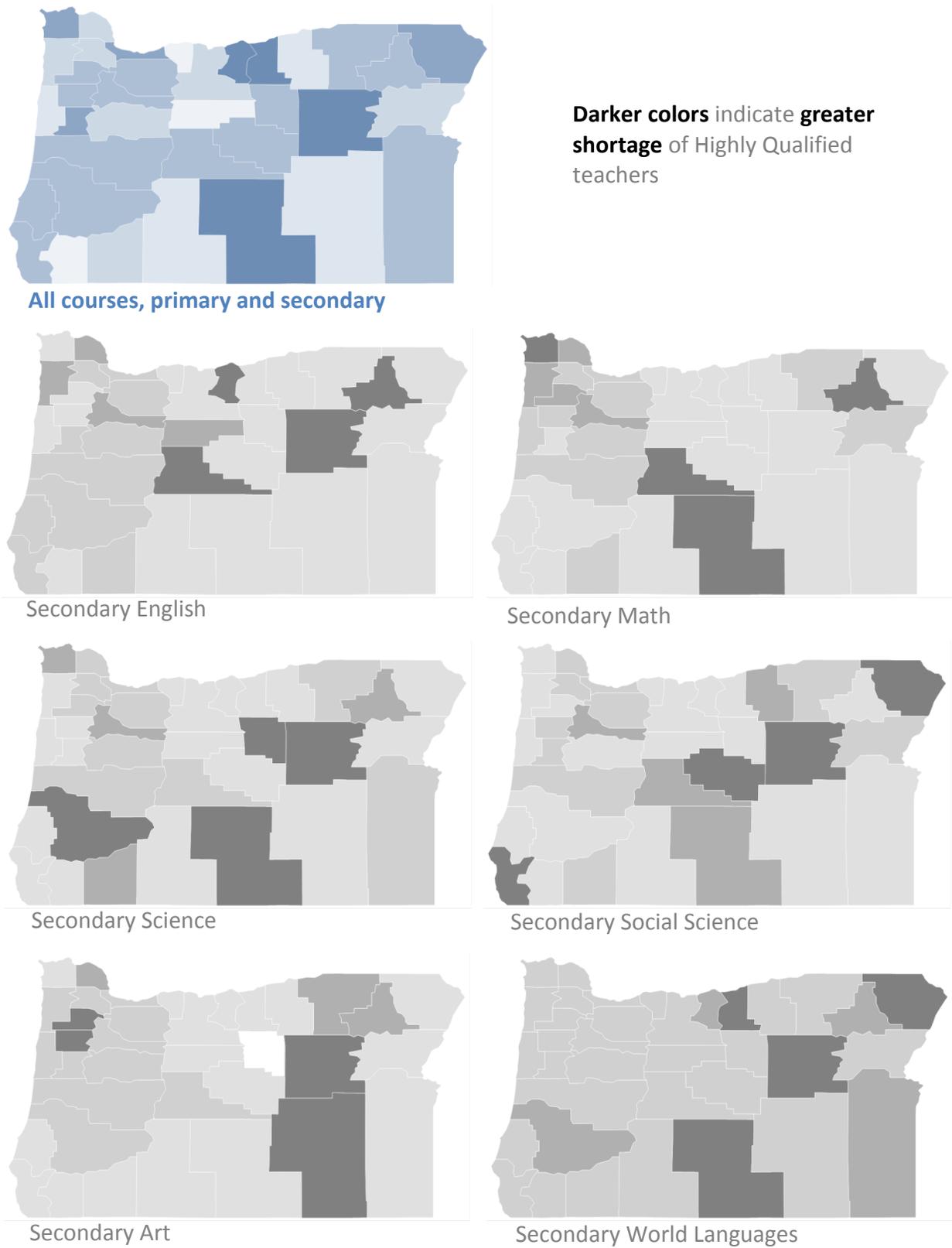
68%

In Lake county, only 67.5% of the 40 secondary math courses offered were taught by Highly Qualified teachers

These data indicate that severe shortages exist, although they may not be apparent until the data are disaggregated. Many Oregon counties consistently struggle to hire and retain qualified teachers.

Figure 7:

Highly Qualified teacher shortages, 2014 – 2015



Addressing staffing needs for every Oregon student

The preceding analysis demonstrated that while shortage situations may be less widespread than some news reports indicate, there are acute shortages within subject areas and geographic regions. Data indicate that these shortages have been relatively consistent over the previous five years, suggesting that Oregon is not making significant progress towards addressing teacher supply shortages.

There are additional concerns that are not captured by this analysis. For example, bilingual teachers have been increasingly in demand as Oregon schools expand bilingual programs to reflect our changing population. Bilingual shortages are not adequately captured by the licensing or the Highly Qualified data.

“We are in desperate need of highly qualified teachers in HS Math / Science / Language and Specialists like Speech.

What are colleges doing to promote these programs?”

Some of these trends are best captured through dialogue with principals and other hiring agents. Though the data reveal some types of hiring difficulty, they don’t address the nuances of the hiring process. Only principals know the quality and size of the hiring pool available during their search.

After the 2014 hiring seasons, the Oregon School Personnel Association and the Oregon Education Investment Board (now the Chief Education Office) conducted a supply and demand survey of school districts. Principals indicated needs in the

same areas identified through the data in this report. One principal felt that staffing options were limited, and noted, “We would love to see a larger candidate pool of Advanced Math and Science teachers.” Principals also expressed frustration that staffing continued to be difficult year after year.

“Where are they and how can we get them to rural southern Oregon?”

Unfortunately, most reports on teacher supply and demand do not directly address the issues that Oregon principals face each year. The state is not experiencing statewide, across-the-board shortages that can be solved by sending more youth to teacher preparation programs. Instead, the state can only make meaningful progress towards solving teacher supply problems if these shortages are identified and targeted by subject and geographic area.