IDAHO'S EDUCATOR LANDSCAPE:

How Is the State's Teacher Workforce Responding to Its Students' Needs?

January 2018

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Regional Educational Laboratory Northwest

RETENTION

EQUITABLE ACCESS
TO TEACHERS

CHANGING STUDENT POPULATION

TEACHER EXPERIENCE



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REL Northwest conducted this study in response to a request from the Idaho State Department of Education (ISDE), as part of their involvement in the Idaho Educator Pipeline Alliance, a REL Northwest partnership. The alliance brings together ISDE; the Idaho State Board of Education; the Idaho Superintendents Network; and the Science, Technology, Engineering and Mathematics Action Center to implement research-based actions that can improve educator recruitment and retention in Idaho.

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Seeking a strong, stable teacher workforce

Many school districts in the United States are facing severe teacher shortages (Bordonaro, 2017; Palmer, 2017; Seattle Pacific University, 2017; Whaley, 2017). In several states—including Idaho—the difficulty of hiring qualified candidates has expanded beyond historical high-need content areas such as special education and mathematics to include English language arts and elementary education (Cross, 2017). Several factors are contributing to these shortages, including an aging workforce, decreased enrollment in teacher preparation programs, and persistently high attrition from the profession (Goldring, Taie, & Riddles, 2014).

In Idaho, schools struggling to fill vacancies increasingly hire less experienced and unlicensed teachers (Wootton, 2017). Meanwhile, local and state education agencies are exploring policies to support teacher recruitment and retention, such as a four-day school week or more robust salaries and a well-defined career ladder. Understanding how and where Idaho's teacher workforce has changed relative to the size and characteristics of its student population can inform state and local efforts to support teacher recruitment, development, and retention. To that end, this report describes statewide data from the 2011/12 through 2016/17 school years on changes in student enrollment and demographics, teacher preparation, the composition of the teacher workforce, and teacher turnover.

KEY FINDINGS INCLUDE:

- Student enrollment grew by 6 percentage points between 2011/12 and 2016/17. The percentage of economically disadvantaged, special education, and English learner students in Idaho was similar over time, with some regions increasing in the percentage of economically disadvantage students they serve and others decreasing.
- In each year of the study, about 1 in 5 teachers did not return to their school the following year. High-poverty and low-performing schools had higher percentages of teachers who did not return.
- The teacher workforce is becoming less experienced. Teachers with three years or less of
 experience and teachers with alternative authorization certificates (i.e., who are not fully
 certificated) made up a growing share of Idaho's teacher workforce, especially in rural,
 low-performing, and high-poverty schools.
- Although enrollment in Idaho's teacher preparation programs is declining they are producing a similar number of completers over time.
- Many schools, including high-poverty schools, are struggling to keep up with increasing enrollments of English learner students. About a quarter of schools that had at least 20 English learner students did not have an English language development teacher in 2016/17. Where these teachers were employed, their caseloads increased along with the enrollments of English learners, especially in high-poverty schools. In contrast, special education teachers served fewer students in 2016/17, on average, than they did in 2011/12, despite increases in special education student populations.

The remainder of this report illustrates these findings in greater depth and demonstrates how patterns vary for schools in different areas of the state. It also offers national comparisons and suggests discussion topics for state and local education agency leaders and policymakers.

Box 1. Data and analysis methods

Data sources. Data for this study come primarily from the Idaho State Department of Education (ISDE), which provided de-identified data about students and teachers from the 2011/12 to 2016/17 school years. ISDE aggregated student data to the classroom or school levels. Publicly available data from the U.S. Department of Education Title II reports provided information about teacher preparation program enrollment and completion from 2008/09 to 2014/15, the most recent data available.

Sample. The study includes students attending Idaho K–12 public schools from 2011/12 to 2016/17 and their teachers. Apart from details on state student enrollment in the profile about Idaho's students, this study excludes 52 virtual schools, detention centers, and special needs schools, leaving 718 schools in the sample. Due to these restrictions, the study's sample is different from the sample of students that ISDE uses to generate reports; therefore, direct comparisons to publicly reported data should not be made.

Methods. The study authors computed frequencies, percentages, and averages to describe patterns and trends in student enrollment and demographics and in the composition of the teacher workforce. The authors then compared student and teacher characteristics across schools and years.

Student enrollment in Idaho grew by 6 percentage points between 2011/12 and 2016/17

Idaho served nearly 300,000 K–12 public school students in the 2016/17 school year. Enrollment has grown by approximately 17,000 students (6 percent) since 2011/12. In response, Idaho has added more than 1,500 full-time equivalency (FTE) teachers, bringing the 2016/17 educator workforce to nearly 16,000 FTE. In all six years of this study, Idaho schools maintained an average of 15 to 16 students per teacher. During this period, approximately half of all public school students in the state were economically disadvantaged, while 1 in 10 were eligible for special education services, and about 1 in 20 were English learners. In addition, about 1 in 10 schools qualified as a Community Eligibility Provision (CEP) school in 2016/17, meaning it had at least 40 percent of students eligible for free meals in the previous year and could provide free meals to all students without individually qualifying them in the current school year.

Box 2. Understanding the composition of Idaho's student population and educator workforce: Key concepts and terms

Novice teachers have less than 1 year of experience.

Early-career teachers have 1 to 3 years of experience.

Alternative authorization certificates are issued to teachers who fill an area of need but do not hold an appropriate certificate or endorsement. They include content specialists that do not meet all of Idaho's state requirements for full certification, certified teachers teaching in an area for which they are not endorsed, teachers with emergency provisional certificates, and teachers in alternative certification routes (Teach for America and the American Board for Certification of Teacher Excellence). Teachers who became fully certificated during a school year are counted as fully certificated for that entire school year.

Teacher turnover rate is the percentage of teachers who do not return to their school in the following school year.

Full-time equivalency (FTE) is the sum of full-time teachers plus the full-time equivalent of the part-time teachers. For example, a school with one full-time teacher (1.0) plus one half-time teacher (0.5) would have 1.5 FTE teacher.

Economically disadvantaged students are eligible for free or reduced-price meals. Students attending Community Eligibility Provision schools are excluded.

English learner students have a primary or home language other than English and have not yet tested proficient in English.

Special education students have exceptional needs, such as learning or physical disabilities, and have an Individualized Education Plan.

Low-poverty schools serve a student population that is less than 25 percent economically disadvantaged.

High-poverty schools serve a student population that is at least 75 percent economically disadvantaged.

Community Eligibility Provision (CEP) schools had certified at least 40 percent of their students for free meals in the previous school year and serve free meals to all students without collecting applications from individual students. A hundred schools in the sample participated in CEP for at least one year between 2013/14 and 2016/17. On average, these schools certified 72 percent of their students for free or reduced-price meals in the year prior to participating in CEP.

Low-performing schools are in the bottom 25 percent of schools in the state based on the percentage of students who scored proficient on the math or English language arts Smarter Balanced assessments, calculated within the school year.

High-performing schools are in the top 25 percent of schools in the state based on the percentage of students who scored proficient on the math or English language arts Smarter Balanced assessments, calculated within the school year.

The Six Regions of Idaho

The regions of Idaho are often referred to by number: North (1), Northcentral (2), Southwest (3), Central (4), Southeast (5), and Northeast (6).

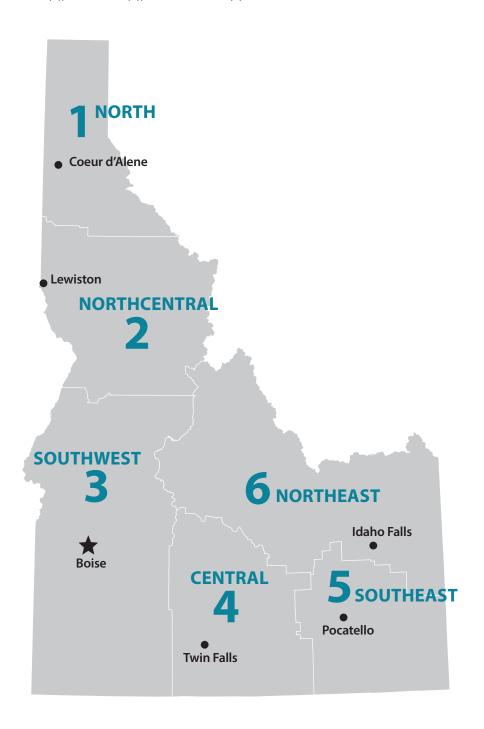
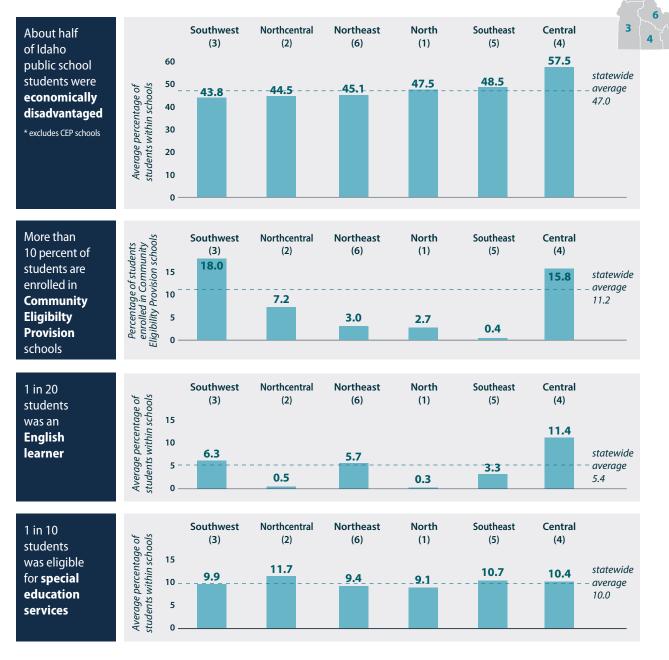


Figure 1. Idaho Public School Student Groups 2016/17

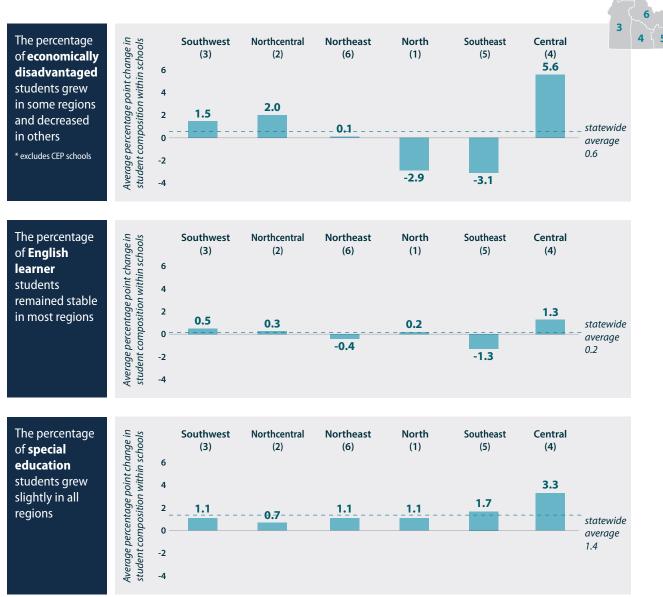


Note: The regions of Idaho are often referred to by number: North (1), Northcentral (2), Southwest (3), Central (4), Southeast (5), and Northeast (6). Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included.

Source: Authors' analysis of Idaho State Department of Education data.

Although the state-level demographic composition of Idaho's students remained stable between 2011/12 and 2016/17, some areas of the state experienced changes. For example, even when excluding CEP schools, Central Idaho schools had, on average, a 5.6 percentage point increase in economically disadvantaged students, while Southeast Idaho schools had an average decrease of 3.1 percentage points (figure 2).

Figure 2. Excluding schools participating in the Community Eligibility Provision program, the percentage of economically disadvantaged students grew in schools serving some regions of Idaho and decreased in others, 2011/12–2016/17



Note: The regions of Idaho are often referred to by number: North (1), Northcentral (2), Southwest (3), Central (4), Southeast (5), and Northeast (6). Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included.

Source: Authors' analysis of Idaho State Department of Education data.

About 1 in 5 Idaho teachers does not return to their school the following year

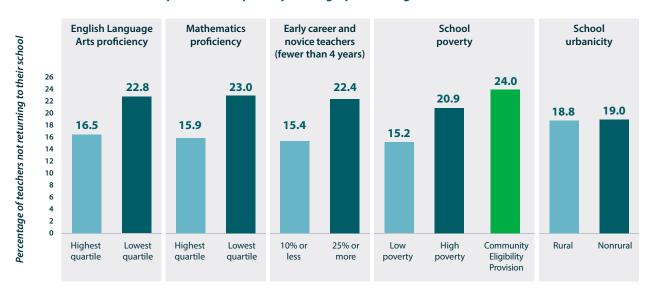
In each study year (2011/12 to 2016/17), about 1 in 5 teachers (19.7 percent, on average) did not return to the school they taught in during the previous school year. In comparison, the most recent national data from the 2011/12 Schools and Staffing Survey and its supplement, the

2012/13 Teacher Follow-Up Survey, found that 16 percent of teachers did not stay at their schools from the 2011/12 to 2012/13 school year (Goldring, Taie, & Riddles, 2014). This national average is similar to the turnover rates for Idaho's high-performing schools and low-poverty schools, as well as schools that have few teachers with less than four years of experience in 2016/17 (figure 3).

More than 20 percent of teachers do not return to low-performing and high-poverty schools.

Consistently, from 2011/12 to 2016/17, more than 20 percent of teachers do not return to low-performing and high-poverty schools and schools that employ many novice or early-career teachers. (On average, 22 percent of novice teachers, 19 percent of early-career teachers, and 18 percent of teachers with four or more years of experience did not return to their schools the following year between 2011/12 and 2016/17.) Typically, there were no differences in teacher turnover between rural and nonrural schools. The exception was 2012/13, when 19 percent of teachers did not return to rural schools, compared to 23 percent of teachers at nonrural schools.

Figure 3. Larger percentages of teachers in high-poverty and low-performing schools did not return to their schools compared to low-poverty and high-performing schools, 2016/17



Note: On average, 18.9 percent of teachers did not return to their schools in 2016/17. Patterns are similar for other school years. Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included.

Source: Authors' analysis of Idaho State Department of Education data.

Not all teacher turnover is bad. Retirement makes room for beginning teachers to start their careers, and when less effective teachers leave it provides an opportunity to replace them with highly effective teachers. It can be costly to recruit and onboard new teachers, however, and the disruption caused by staff turnover can be detrimental to student achievement (Ronfeldt, Loeb, & Wyckoff,

2013). In addition, when multiple teachers leave a single school in the same year, it may be difficult to replace them all. In Idaho, schools that had higher numbers of teachers who did not return often had a reduced teaching staff in the following year. This can result in higher class sizes or reduced services for students. Considering only schools that had no more than a five-student decrease in enrollment from year to year (a third of schools in the sample), those that had seven or more teachers who did not return employed 1.2 fewer teachers in the following year, on average, while those that had less than three teachers who did not return increased their teaching force by an average of 2.1 teachers in the following year.

The teacher workforce in Idaho is becoming less experienced

The composition of Idaho's teacher workforce changed between 2011/12 and 2016/17. Highly experienced teachers began leaving the workforce, while early-career teachers made up an increasing share. The average percentage of teachers with less than four years of experience within schools grew from 17 percent in 2011/12 to 24 percent in 2016/17. The share of teachers over the retirement age (55) also decreased, from 23 percent to 18.5 percent. Put differently, as the student population increases and retirement-age teachers leave the workforce, Idaho's schools are hiring novice and early-career teachers to meet the growing demand for teachers.

In 2016/17, teachers with less than four years of experience made up about a quarter of the work-force across most content areas. The exception was special education, where these less experienced teachers accounted for 31 percent of the workforce. Novice and other early-career teachers made up larger shares of the faculty in low-performing schools and high-poverty schools (figure 4). Even within schools, they tended to teach slightly higher shares of economically disadvantaged students and lower performing students (not shown).

English Language Mathematics School School Arts proficiency proficiency urbanicity poverty 34 Percentage of early career and novice teachers 32 30 28 26 Early career 24 24.0 22 teachers 18.5 20 19.0 (1-3 years of 20.0 18 experience) 16 16.7 14 12 10 8 Novice 6 9.1 9.7 9.4 9.2 teachers 4 7.8 5.8 (0 years of experience) Highest Highest Community Rural Nonrural Lowest Lowest Low High quartile quartile quartile Eligibility quartile poverty poverty Provision

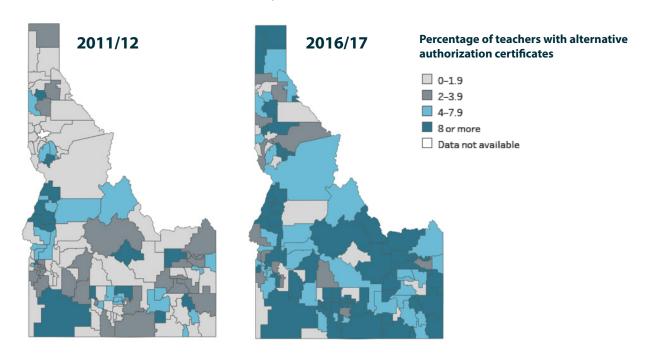
Figure 4. High-poverty and low-performing schools employ higher percentages of novice and early-career teachers than low-poverty and high-performing schools, 2016/17

Note: Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included.

Source: Authors' analysis of Idaho State Department of Education data.

Teachers with alternative authorization certificates—those who have special authorization from the state to fill a vacancy when a fully certificated teacher is not available—are making up an increasing share of Idaho's workforce, from 2.3 percent in 2011/12 to 6.5 percent in 2016/17. This pattern is widespread throughout Idaho (figure 5).

Figure 5. Most school districts employed a higher percentage of teachers with alternative authorization certificates in 2016/17 than they did in 2011/12



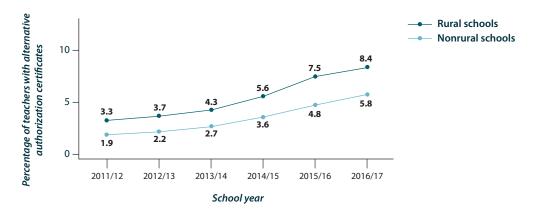
Note: Teachers with alternative authorization certificates who became fully certified during the school year are counted as fully certified for the entire school year. Analysis excludes virtual schools, juvenile detention schools, and special needs schools. Traditional schools, charter schools, magnet schools, and alternative schools are included.

Source: Authors' analysis of Idaho State Department of Education data.

The percentage of teachers in rural schools who have alternative authorization certificates increased by 5.1 points between 2011/12 and 2016/17 (figure 6). In comparison, it increased by 3.9 percentage points in nonrural schools.

11.2 percent of teachers in rural schools that were low-performing on the spring 2016 Smarter Balanced mathematics assessment had an alternative authorization certificate, compared to only 5.5 percent of teachers in rural schools that were high-performing.

Figure 6. The percentage of teachers who have alternative authorization certificates is rising across all Idaho schools and has more than doubled in rural schools, 2011/12–2016/17

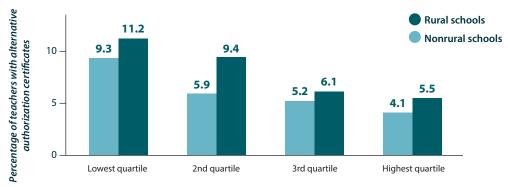


Note: Teachers with alternative authorization certificates who became fully certified during the school year are counted as fully certified for the entire school year. Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included.

Source: Authors' analysis of Idaho State Department of Education data.

Teachers with alternative authorization certificates were not evenly distributed across schools, even within rural and nonrural contexts. For example, 11.2 percent of teachers in rural schools that were low-performing on the spring 2016 Smarter Balanced mathematics assessment had an alternative authorization certificate, compared to only 5.5 percent of teachers in rural schools that were high-performing (figure 7). The results are similar when comparing schools based on proficiency rates on the English language arts assessment and when comparing schools based on the percentage of their students who are economically disadvantaged (not shown).

Figure 7. Low-performing schools employ a higher percentage of teachers with an alternative authorization certificate, as compared to high-performing schools, 2016/17



School percent proficient on the Smarter Balanced mathematics assessment in 2016

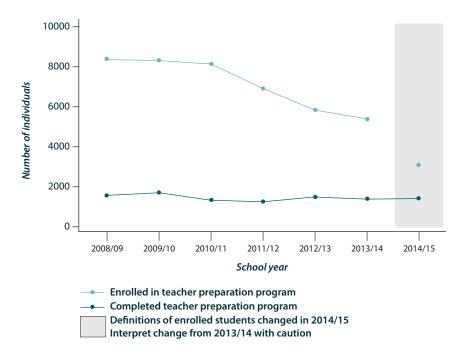
Note: Results are similar for English language arts. Teachers with alternative authorization certificates who became fully certificated during the school year are counted as fully certificated for the entire school year. Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included.

Source: Authors' analysis of Idaho State Department of Education data.

Although enrollment in Idaho's teacher preparation programs is declining, the programs are producing a similar number of completers over time

Idaho's traditional and alternative teacher preparation programs enrolled fewer students in 2014/15 than they did in 2008/09, with a sharp decline beginning in the 2010/11 school year (figure 8). Despite decreasing enrollments, the number of completers held steady over time, suggesting that completion rates may be improving. Enrollment numbers prior to 2014/15 should not be compared to counts from 2014/15 and onward. In 2014/15, Idaho's teacher preparation programs standardized the way they count enrollments, which resulted in lower enrollment numbers for some programs. More time is needed to ascertain whether these patterns persist.

Figure 8. Enrollments in Idaho's traditional and alternative teacher preparation programs decreased while the number of completers held steady, 2008/09–2014/15



Note: The U.S. Department of Education had not published data for 2015/16 and 2016/17 at the time of the analysis. This analysis includes enrollments in traditional and alternative teacher preparation programs. Idaho's institutions of higher education standardized their definition of enrollment in teacher preparation programs in 2014/15; therefore, changes in enrollments from 2013/14 to 2014/15 should be interpreted with caution.

Source: Authors' representation of U.S. Department of Education, Title II Higher Education Act 2016 Idaho state report data files (U.S. Department of Education, 2016).

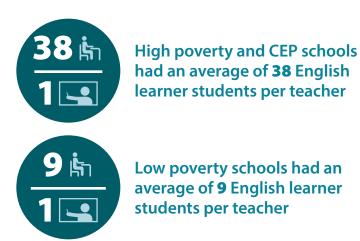
High-poverty schools are struggling to keep up with increasing enrollments of English learner students

English language development has been a reported shortage area every year since 2003/04 (Cross, 2017). Among schools in this study's sample, the English learner student population grew to more than 16,000 students in 2016/17—a 10 percent increase from 2011/12. Meanwhile, the number of English language development teachers more than doubled between 2011/12 and 2016/17 to a total of approximately 600 teachers.

Over this time, the percentage of schools that had at least one English learner student but no English language development teacher declined from 55 percent in 2011/12 to 40 percent in 2016/17. In 2016/17, 23 percent of schools that had at least 20 English learner students did not have an English language development teacher.

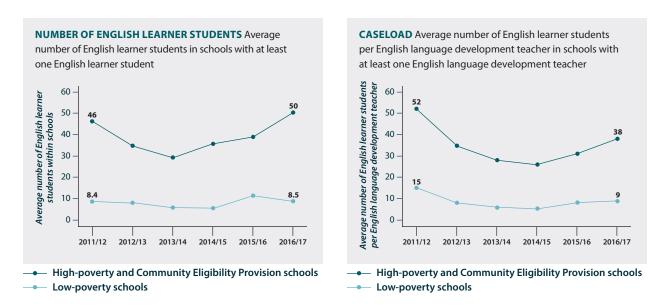
Among schools that had English language development teachers, the number of English learner students per English language development teacher was much higher in high-poverty and CEP schools than in low-poverty schools (figure 9). These gaps tended to mirror gaps in English learner student enrollment between high- and low-poverty schools. In both high- and low-poverty schools, when enrollment of English learner students increased, so did caseloads for English language development teachers. Enrollment of English learner students and caseloads of English language development teachers increased faster in high-poverty and CEP schools than they did in low-poverty schools from 2014/15 to 2016/17.

English language development teachers in high poverty schools have large caseloads



Data from 2016/17 school year

Figure 9. Enrollment of English learner students has increased at high-poverty and Community Eligibility Provision schools, and English language development teachers in high-poverty and Community Eligibility Provision schools have higher caseloads than their peers in low-poverty schools, 2011/12–2016/17

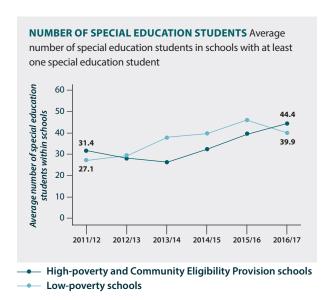


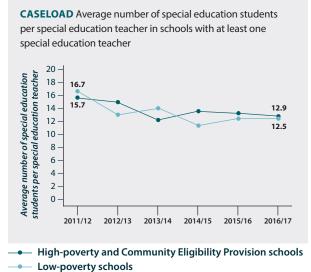
Note: Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included. Low-poverty schools have less than 25 percent of students who are economically disadvantaged. High-poverty schools have at least 75 percent of students who are economically disadvantaged. Schools in the latter category are combined with Community Eligibility Provision schools for this analysis.

Source: Authors' analysis of Idaho State Department of Education data.

In contrast to the findings about English learner students, schools in the study sample added nearly 900 special education teachers to the workforce between 2011/12 and 2016/17 to respond to an increase of more than 4,000 special education students. These increases in the special education workforce appear to be nearly meeting student needs: Only 6 percent of schools with at least one special education student did not have a special education teacher in 2016/17, down from 15 percent in 2011/12. In addition, while the number of special education students has generally increased between 2011/12 and 2016/17, the number of special education students per special education teacher has been similar and decreasing in high- and low-poverty schools alike (see figure 10).

Figure 10. While the average number of special education students that high- and low-poverty schools serve has increased over time, caseloads for special education teachers have decreased, 2011/12–2016/17





Note: Analysis excludes virtual, juvenile detention, and special needs schools. Traditional, charter, magnet, and alternative schools are included. Low-poverty schools have less than 25 percent of students who are economically disadvantaged. High-poverty schools have at least 75 percent of students who are economically disadvantaged. Schools in the latter category are combined with Community Eligibility Provision schools for this analysis.

Source: Authors' analysis of Idaho State Department of Education data.

Considerations for state and local education leaders and policymakers

Idaho has met a growing student population by expanding its teacher workforce, even as novice and early-career teachers, as well as teachers with alternative authorization certificates, are increasingly leading its classrooms. This raises several issues for state and local education leaders to consider.

Certain areas of the state have seen increases in the percentage of students who are economically disadvantaged (see figure 2). Evidence from this brief suggests that high-poverty and CEP schools have higher turnover rates and higher percentages of novice and early-career teachers than low-poverty schools, even as their populations of students with special needs and limited English proficiency are growing (see figures 9 and 10). Principals and educators in high-poverty and CEP schools may need help responding to these changes, some of which the state could provide through professional development, financial supports, and other strategies first identified in the *Idaho Plan to Ensure Equitable Access to Excellent Educators* and now outlined in the State's Every Student Succeeds Act plan (Idaho State Department of Education, 2014, 2017).

The persistent shortage of English language development teachers underscores the need to strengthen and sustain components of preparation, induction, and professional development programs that help all educators meet diverse educational needs, such as the Rural Endorsement and

Development Opportunities initiative at Boise State University (Moore, 2016). This could help teachers improve instruction for English learner students in areas where specialists are not available or have high caseloads (Deussen, Roccograndi, Hanita, Autio, & Rodriguez-Mojica, 2015; Short, 2017). Training for current teachers could be accompanied by state policies that help incentivize or lower barriers to becoming an English language development teacher in Idaho (Arroyo-Romano, 2016; Waldschmidt, 2002). In addition, state and local partnerships with higher education institutions and community-based organizations could improve recruitment and training of bilingual and English language development teachers (De la Colina, Cuellar, & Degollado, 2014; Diaz & Mahadevan, 2011; Brown, Smallman, & Hitz, 2008).

The influx of teachers with few years of experience or with alternative authorization certificates may signal a higher need for mentorship and professional development across the state. Schools that can provide high-quality support and mentoring to new teachers may be able to retain them longer and improve their effectiveness more quickly (Ronfeldt & McQueen, 2017). Retaining teachers can both reduce financial costs associated with turnover (Barnes, Crowe, & Schaefer, 2007) and help improve student achievement as teachers gain expertise over time (Papay & Kraft, 2015; Ladd & Sorensen, 2015; Ronfeldt et al., 2013). Investigating the conditions under which these new teachers stay and leave could provide actionable information

Attention to the quality of working conditions and school leadership is important for improving teachers' job satisfaction and retention (Grissom, 2011; Loeb, Darling-Hammond, & Luczak, 2005; Mayer & Phillips, 2012). In Idaho, economically disadvantaged and lower performing students are more often taught by novice and less experienced teachers than by veteran teachers. School leaders may want to consider ways to make student assignments across teachers more equitable to help inexperienced teachers learn the craft (Kalogrides, Loeb, & Béteille, 2013; Feng, 2010; Kelly, 2004).

about how to improve their retention rates.

Idaho's state and local education leaders understand the urgency of addressing these issues to improve recruitment into the profession, develop high-quality educators, and retain them in schools. Continued attention to patterns and trends, such as those found in this report, will help these leaders assess the impact of their efforts on creating a stable, equitable workforce for all Idaho students.

PROFESSIONAL
DEVELOPMENT

MENTORSHIP

FINANCIAL
SUPPORT

PARTNERSHIPS

STATE POLICY

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