



# Colorado Educator Preparation Programs and the Educator Pipeline

By:

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## Executive Summary

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The 2020 Educator Preparation Program (EPP) Report executive summary presents the rationale for the expanded scope of the EPP Report, highlights important findings and introduces the new EPP Report format available in interactive online dashboards.

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## Introduction

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Increased attention has been brought in recent years to the issue of developing and sustaining a high-quality educator workforce. A shortage of teachers is a national problem that Colorado continues to grapple with as the population grows, demographics change and enrollment in teacher preparation decreases (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Teacher shortages are more concentrated in some Colorado geographical areas and in some teaching content and specialty areas than others (Colorado Department of Education, 2019; Colorado Department of Higher Education, 2017). At the same time, many states, including Colorado, have mandated more rigorous educator quality standards and performance evaluation systems as part of an effort to differentiate and improve teacher performance (Aragon, 2018). Further, many states link educators' outcomes to the preparation programs to lend transparency to contributions of preparation programs (Keily, 2018; Teacher Preparation Analytics, 2018). A key focus of the state is to develop, deploy and support educator talent strategies for preparation programs, school districts and schools so that the most effective educators are in every school and classroom and all students are prepared for college, career and life.

The realization of this goal is, in part, dependent upon a knowledgeable and skilled educator workforce emerging from Colorado's educator preparation programs. Educator preparation programs (EPPs) are authorized and overseen by both the Colorado State Board of Education (SBE) and the Colorado Commission on Higher Education (CCHE), and oversight is operationalized by staff at the Colorado Department of Education (CDE) and the Colorado Department of Higher Education (CDHE). The Colorado Educator Preparation Programs Report (EPP Report) is jointly produced by these entities for the purpose of sharing information with preparation programs to inform curriculum and program improvements by providing these outcome data. Additionally, this report serves the purpose of informing the public of trends in educator preparation and employment.

For many years, an annual report of educator preparation programs has been prepared by CDHE. Historically, the report included program enrollment and completion data and program authorization activities. This new EPP Report represents an expanded version, to include metrics from the historic report as well as additional metrics that track new teachers into Colorado's workforce required by state law, C.R.S. 22-2-112(1)(q). Additionally, the data are presented in an interactive online platform, allowing the user the opportunity to obtain answers to specific questions.

This EPP Report examines outcomes of preparation programs' contributions to Colorado's workforce. Metrics for educator preparation enrollment and completion of all educator endorsement areas, authorization and reauthorization activities and job performance outcomes for new teachers in their first three years of teaching are included. Job performance outcomes include employment statistics, contextual information about the districts and schools in which teachers are employed, teacher effectiveness ratings and retention and mobility statistics. The updated EPP platform also presents the programs' unique mission statements and links to each program's website for further information.



The new version of the report was required by a statutory change, House Bill 13-1219. As required by state law, C.R.S. 22-2-112 (1) (q) and C.R.S. 23-1-121 (6), the Commissioner of Education must prepare an annual report in collaboration with the Department of Higher Education on the effectiveness of educator preparation programs. The report must include enrollment in, graduation from, review of authorization and reauthorization of programs, educator placement, educator mobility and retention and educator performance evaluation ratings<sup>1</sup>. The 2019-20 academic year will be the first year in which the report will reflect these changes and will be produced annually by CDE in collaboration with CDHE. It is available for the first time in 2020 because with three year of complete alternative preparation detailed records, it is now possible to present comparable levels of information for teacher outcomes from traditional and alternative preparation routes. Historically, the count of students in alternative licensure programs occurred at a program level and did not include the individual, detailed records with candidate identifiers and other key elements required to track teacher outcomes.

### **Traditional and alternative preparation**

There are two pathways to becoming an educator in Colorado. The traditional route involves candidates enrolling in an approved public or private college or university, completing an approved program, and, once the program is completed, applying for licensure. State law, C.R.S. §23-1-121, grants CCHE the authority to approve educator preparation programs at public and private colleges and universities and the SBE the authority to oversee the appropriate and effective incorporation of program content. The second pathway is through designated agencies approved by the state as alternative licensure educator preparation programs, referenced throughout this report as alternative preparation programs. State law, C.R.S. §22-60.5-205, requires these alternative licensure programs to be under the sole authority of the SBE and CDE. This option exists for those individuals who already hold at least a bachelor's degree but need the additional coursework and training in pedagogy. Alternative teacher and principal candidates receive instruction while they are working in a school as the principal or as a teacher of record with lead responsibility for student instruction and learning.

### **Suggestions for using new Educator Preparation Program Report**

The term EPP Report is used to refer both to this written executive summary and the web-based data dashboards, which display visuals based on the full set of data. The EPP report will be released annually in late fall. The interactive nature of the web-based EPP Report makes it flexible to meet the needs of a variety of users. A primary goal of the report is to allow EPPs access to their own data which will be helpful for their continuous improvement efforts. For example, the EPP Report is intended to foster discussions within the EPP about programmatic improvement; spark conversations with other academic departments within their institutions that lead to better specific content knowledge support in candidate endorsement areas; and engage primary partner districts to identify ways to strengthen clinical practice. The report also will be useful during the periodic state program review and reauthorization process in which program design and content are examined to determine ability to prepare educators to serve children in classrooms. The reauthorization review occurs approximately every five to seven years and includes a written report from the EPP and a state team site visit. As part of the reauthorization cycle, the EPP and the state reauthorization team will be able to easily locate useful historic and comparative data to tailor discussions during the reauthorization site visit.

Additional primary stakeholder groups include school districts, policymakers, community groups, advocacy groups, prospective education candidates and researchers. School district hiring offices will have access to

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<sup>1</sup> C.R.S 22-2-112 also specifies the inclusion of student academic growth, but that data is not currently available at the educator level. H.B. 18-1379 permits the omission of the student academic growth data from the EPP reports when these data are not available at the time of reporting. When these data become available, future EPP reports will include them.



aggregate information about graduates from specific preparation programs and in specific endorsement areas to help inform recruitment efforts and other decision areas. Policymakers will have a richer portrayal of the teacher pipeline in Colorado to inform future legislation and funding decisions. Similarly, community and advocacy groups will be able to access data specific to their interests to inform their efforts. Prospective students will be able to use the dashboards to quickly identify which EPPs offer programs of interest to them and drill directly from the dashboards into any specific EPP for further information about application requirements, costs, etc. The availability of downloadable data files containing the data displayed in the web-based dashboards allow researchers easy access to publicly available data.

## Methodology

The data for this report originates from the EPPs and Colorado school districts. Most data used are gathered in multiple mandatory data collection processes operated by CDHE, CDE and the U.S. Department of Education Higher Education Act Title II Program. In addition to the data collections, the authorization and reauthorization information that appears in the reports is annually updated by state staff who oversee these activities, and EPP mission and vision statements are provided by program staff. The EPPs have made significant strides in collecting and reporting processes as the uses for these data has expanded in recent years.

Staff from CDHE collect data from traditional EPPs that are required to annually report enrollment and completion data by endorsement area for all educator licensure candidates<sup>2</sup> through the CDHE Student Unit Record Data System (SURDS). Staff from CDE collect data from designated agencies authorized to provide alternative licensure that also are required to annually report enrollment and completion by endorsement area through the Designated Agencies Data Collection (DADC). Together, these two collections represent the enrollment and completion in EPPs in Colorado. Enrollment and completer data for traditional EPPs is shared with CDE by CDHE through permissions granted in a formal Data Sharing Agreement for purposes of creating the EPP Report.

For the purposes of this report, the academic year includes fall, winter (for those programs operating on a quarter system), spring and summer terms, in that order. Each of these terms is identifiable in CDHE's Student Unit Record Data System (SURDS) data, which allows the SURDS terms to be matched to CDE's Designated Agencies Data Collection (DADC) terms. This is necessary to ensure consistency in terms reported for an academic year because these data collections operate on different reporting cycles<sup>3</sup>.

Employment data is collected annually by CDE from all Colorado public school districts and Boards of Cooperative Educational Services (BOCES) that employ educators through the Human Resources Snapshot. This collection provides employment, performance and retention information for the cohort of new teachers tracked into the workforce in Colorado public schools. Contextual information about the schools and districts in which new teachers are employed comes from the CDE October Count collection and district annual accreditation ratings generated by CDE.

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<sup>2</sup> CDHE will begin to require annual data for special services provider candidates, such as school counselors, school psychologists, etc., in the collection covering the 2018-19 Academic Year. Future EPP reports will include these categories of educators, as well.

<sup>3</sup> Relatedly, the summer 2018 traditional EPP enrollment is finalized in October 2019, and so on. Due to this pattern of term-matching and collection timeline, the EPP reports are anticipated to be released in December annually.



The percentage of program completers who passed required initial licensure exams is provided by the U.S. Department of Education Higher Education Act Title II data collection. The most recent EPP authorization or reauthorization by the State Board of Education and, in the case of traditional programs, the Colorado Commission on Higher Education is based on agency internal records and official authorization/reauthorization documents.

Numerous stakeholders provided valuable input during the development of this first release of the new, more comprehensive EPP Report. A list of members of the standing Advisory Committee appears in the appendix. In addition to the Advisory Committee, input was gathered at regular meetings of the Colorado Council of Deans of Education, Designated Agency Annual Meetings and various conference presentations and informal meetings. All EPPs were offered the ability to access embargoed pre-release copies of the electronic EPP Report for four weeks during September 2019 and representatives from 45 EPPs participated in the embargoed preview. Their valuable feedback was incorporated into the EPP Report.

## Highlights

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This executive summary includes state-level metrics related to:

- The number of candidates enrolled in and completing educator preparation in total and by endorsement areas experiencing the greatest shortages statewide, as well as by traditional and alternative routes of preparation:
  - Overall enrollment in Colorado educator preparation programs has increased during the past three years from 11,298 in 2015-16 to 12,486 in 2017-18.
  - Colorado's pool of educators-in-training continues to be predominately white and female. Though preparation providers report attempting to actively recruit and prepare more diverse candidates and the proportion and total number of enrollees across Colorado identifying as Hispanic has increased from 13.6% (1,536) to 14.9% (1,856) during the past three years, teacher candidates are predominately non-Hispanic whites.
  - Creditably, alternative licensure programs are attracting a relatively high proportion of male candidates: approximately one out of three alternative licensure candidates are male compared to approximately one out of five traditional route candidates.
  - In the statewide teacher shortage areas of secondary mathematics, secondary science and K-12 special education generalist, the number of completers has increased during the past three years. In 2015-16, there were 597 completers in these endorsement areas and in 2017-18 there were 644, representing an increase of 7.8%. Overall, completion in educator programs increased from 3,309 in 2015-16 to 3,602 in 2017-18, representing an increase of 8.8%.
- The percentage of Colorado-prepared new teachers who entered the teaching force in-state the year after they finished preparation and characteristics of the typical schools and districts in which they began their careers:
  - The in-state placement rate of new teachers was 66.1% for the 2017-18 cohort, which is a 5-10 percentage point increase over each of the prior two cohorts. Please note that the in-state placement rate only includes those hired at a *Colorado public school*.



- During the past three years, the largest employers of the statewide cohorts have been Denver Public Schools, Jefferson County Public Schools, Douglas County School District and Aurora Public Schools. In the most recent 2017-18 cohort, these four districts hired nearly four of every ten (38%) new teachers finishing at Colorado EPPs.
- In the most recent cohort, 2017-18, over a third of these new teachers taught in schools with high levels of poverty (35.7%), minority students (38.1%) and/or English-language learners (37.8%).
- On-the-job performance evaluation ratings for cohorts of new teachers during their first three years of employment:
  - For members of the 2016-17 cohort evaluated on the original teacher quality standards (TQS) rubric, whose evaluation ratings were reported to CDE, the vast majority received an overall performance rating of either Effective (44.4%) or Highly Effective (12.6%), the top two ratings. Of the new teachers evaluated on the revised TQS with ratings reported to CDE, the vast majority also received an overall performance rating of either Effective (54.8%) or Highly Effective (5.2%), showing a drop in the level of teachers in the Highly Effective category under the revised rubric.
- Retention rates of new teacher cohorts for three years teaching:
  - Currently, for the 2015-16 cohort, two years of retention data are available for reporting. In this cohort's second year of teaching, 2017-18, seven out of 10 teachers continued to teach in the same school, eight out of 10 continued to teach in the same district and nine out of 10 continued to teach in the Colorado public school system. The following year of retention data (2018-19), which is this cohort's third year of teaching, shows that 53% of the cohort continued to teach in the same school, another 8% continued to teach in the same district but in a different school and 15% taught elsewhere in Colorado's public schools. An additional 2% who had left the teaching workforce in the prior year returned to it.

## Enrollment

Program enrollment reflects how many candidates are in the pipeline to eventually be available in the educator workforce. However, programs vary in length from one year for many (but not all) alternative licensure programs to several years for an undergraduate student. Therefore, it cannot be assumed that enrollment growth one year will result in completion growth that year or even the next year. Program growth is more appropriately interpreted as expansion of the pipeline. In the next section, program completion is presented.

Overall enrollment in Colorado educator preparation programs has increased during the past three years from 11,298 in 2015-16 to 12,486 in 2017-18<sup>4</sup>. Increases in K-12 student populations during this period make the rise

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<sup>4</sup> Historically, the count of students in alternative licensure programs occurred at a program level, but did not include individual, detailed records with candidate identifiers and other key elements. Beginning with the 2015-16 academic year, the alternative licensure candidate records were collected with the same level of detail as those for traditional program students. Therefore, it is possible from 2015-16 forward to include the necessary individual-level alternative licensure records that drive the dashboards for the Educator Preparation Program Report and present comparable levels of information for each preparation route. This provides the rationale for the three-year trends noted in the executive summary.



in the production of teachers a priority. Nationwide, fewer high school students are interested in seeking majors in education (ACT, 2015) through traditional preparation programs. In Colorado, there has been steady growth in the enrollment of alternative educator preparation programs since the first detailed reporting in 2015-16. Note that it cannot be assumed that alternative preparation programs are picking up the decline seen in traditional programs enrollment. Recall that to participate in an alternative program, the prospective teacher needs to have already completed a bachelor's degree and largely that is not the population of traditional candidates.

In a recent report, teacher shortage areas identified as statewide needs in 2018-19 are secondary mathematics, secondary science and K-12 special education generalist (CDE, 2019; CDHE, 2017). There is evidence of yearly enrollment growth in special education generalist programs and stability in secondary mathematics and science programs during the most recent three-year period.

Traditional programs posted overall steady enrollments over the five-year period from 11,684 in 2013-14 to 12,535 in 2017-18, despite some yearly fluctuation. As noted previously, detailed records for alternative licensure candidates are available from 2015-16 through 2017-18 and reflect steady increases each year during this three-year period.

Diversity of the education workforce continues to be a critical goal. Similar with past years, Colorado's pool of educators-in-training for 2017-18 continued to be predominately white and female. Though preparation providers report attempting to actively recruit and prepare more diverse candidates and the proportion and total number of enrollees across Colorado identifying as Hispanic has increased from 13.6% (1,536) to 14.9% (1,856) during the past three years, teacher candidates are predominately non-Hispanic whites. In contrast, most K-12 students in Colorado identify as minority. Creditably, alternative licensure programs are attracting a relatively high proportion of male candidates: approximately one out of three alternative licensure candidates are male compared to approximately one out of five traditional route candidates.

## Completions

Overall, completion in educator programs increased from 3,309 in 2015-16 to 3,602 in 2017-18, representing an increase of 8.8%. The Education Commission of the States (2019) recently reported that 45 states experienced a decrease in educator preparation program completions between 2008-09 and 2016-17. While the total number of new-teacher completers has increased in Colorado, there are yearly fluctuations and from 2016-17 to 2017-18 the number of completers declined by 259. At the same time, the number of enrollees increased by 735, which bodes well for an increase in new teachers in coming years.

In the statewide teacher shortage areas of secondary mathematics, secondary science and K-12 special education generalist, the number of completers has increased during the past three years. In 2015-16 there were 597 completers in these endorsement areas and in 2017-18 there were 644, representing an increase of 7.8%.

As already noted, completers are predominantly white and female, although the proportion of males to females is nearly one to three in alternative licensure programs.

Traditional preparation programs prepare over 2,500 educators each year and completed over 3,000 in 2016-17. Elementary education has had and continues to have the largest number of completers, although there was a





decrease in that endorsement area in 2017-18. Alternative licensure programs prepare between 700-800 educators annually, with elementary education as the primary endorsement area also.

The enrollment and completer data available through 2017-18 do not contain the special services providers, but these educators will be included in future years when those data are available. Special services provider categories include the following: school audiologist, school counselor, school nurse, school occupational therapist, school orientation and mobility specialist, school physical therapist, school psychologist, school social worker and school speech/language pathologist.

## Colorado-prepared New Teacher Outcomes

As previously stated, Colorado statute requires CDE and CDHE to disseminate new teachers' job performance outcomes, including employment information, performance evaluation ratings, mobility and retention<sup>5</sup>. For new teachers, this report portrays a talent pipeline that begins with enrollment in a preparation program and tracks through to retaining new teachers in the classroom for the first three years of their career. Specifically, these outcomes are tracked for the first three years for cohorts of new teachers who completed Colorado preparation programs. A cohort consists of all initial licensure completers in a given academic year, and the "cohort name" is the academic year of completion; e.g., the 2017-18 cohort is the group of new teachers who completed preparation programs in the 2017-18 academic year. The members of the cohort are tracked into the Colorado public schools' workforce to determine how many obtain teaching positions the following year and performance in their first year of teaching. Continued employment, or retention, is monitored for three years. The next four sections of this summary describe these outcomes for the newly prepared teacher cohorts and all data in these sections are restricted to these cohorts.

### New teacher employment<sup>6</sup>

In this section, new teachers who complete an authorized Colorado preparation program are followed to determine whether they enter the teaching workforce in Colorado public schools. A variety of metrics about those new teachers are reported, including their in-state placement rate, demographic characteristics, grade level and subjects taught, teaching in-field status and district of employment. These data reflect employment status during each cohort's first teaching year; for example, the employment data for the 2017-18 cohort year represents employment in the 2018-19 academic year.

The in-state placement rate was 66.1% for the 2017-18 cohort, which is a 5-10 percentage point increase over each of the prior two cohorts. Note that the in-state placement rate is not the same as a total job placement rate because the in-state placement rate only reflects the completers who obtain teaching positions in a public school in Colorado. It does not include completers who may be teaching out-of-state, teaching in private schools, working in other areas of education, working in other non-education fields or not currently participating in the workforce.

For alternative licensure programs, the in-state placement rate has ranged from 68% to 72% over the past three years and has been consistently higher than the rate for traditional programs (ranging from 51% to 63% over the

<sup>5</sup> An additional new teacher outcome measure specified in statute is student academic growth, which will be included in the Educator Preparation Program Report in future years once those data are available through department collections.

<sup>6</sup> Please note that this section and the New Teacher Employment dashboard focus on the *characteristics of the teachers and their positions* and the following section and the New Teacher Employment Context dashboard focus on the *characteristics of the schools and districts in which they teach*.





past three years). This is not surprising when considering that alternative candidates must be employed as classroom teachers during their preparation program and are likely to continue in those positions once they complete their preparation. In contrast, the traditional program completers enter the job market seeking teaching positions, which are more available in certain parts of the state and certain content areas than others. (As a related companion report, CDE also publishes the Educator Shortage Survey Results, that provides an annual synthesis of every Colorado school district's open positions and how positions were filled the prior school year, available at <http://www.cde.state.co.us/educatortalent/edshortage-surveyresults>.)

The largest employers of newly prepared teachers are, perhaps not surprisingly, the largest Colorado school districts. During the past three years, the largest employers of the statewide cohorts have been Denver Public Schools, Jefferson County Public Schools, Douglas County School District and Aurora Public Schools. In the most recent 2017-18 cohort, these four districts hired nearly four of every ten (38%) new teachers finishing at Colorado EPPs. To determine exactly how many teachers were hired in a particular school district, in the interactive dashboard hover the mouse cursor over the district for detailed information. This will display the name of the district and the number of teachers hired from the cohort. If a specific EPP and/or endorsement area are selected, the number of teachers shown will be specific to the selections.

More specific information about the new teachers' positions indicates whether they were hired across grade-level spans; that the vast majority (95%) taught in the field they were prepared for; and that they filled positions in a wide variety of subject areas, predominantly elementary education. Please note that the subject areas reported in the dashboards account for each subject area the new teachers may be teaching, and many will teach more than one subject area. For example, a physical education teacher who also covers study hall for one period will be counted in both subject areas but will be considered as teaching in-field (assuming he/she was prepared as a physical education teacher) because that is the primary teaching assignment. Similarly, many teachers are responsible for non-athletic co-curricular activities, but this is likely not their primary responsibilities. Although the subject area taught is included in the employment information, it is important to remember that the EPP Report focuses on the endorsement area in which the teacher was prepared. In the example about the physical education teacher who completed a physical education endorsement and is now teaching both physical education and study hall, this teacher would appear in the physical education endorsement area in the data.

## New teacher employment context<sup>7</sup>

In this section, contextual data is presented to reflect the characteristics of schools and districts in which the new teachers in a specific cohort are employed. Namely, the contextual data includes the proportions of English-language learners, students living in poverty and minority students attending the schools where the cohorts are employed and the accreditation of the districts in which these schools are located. These reference points help EPPs understand the relationship between the focus areas of their programs and the need of their completers in the workforce.

The student demographic metrics identify the percentage of new teachers who are employed at schools with a low, low to medium, medium to high or high proportion of a demographic group of students. Each school is placed into one of these four categories, or quartiles, according to the percentage of student enrollment in the demographic group and this results in an even number of schools in each category. One interpretation is that if a

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<sup>7</sup> Please note that this section and the New Teacher Employment Context dashboard focus on the *characteristics of the schools and districts in which the new teachers work*.



cohort of new teachers was evenly distributed across all types of schools, 25% would be employed in each of these categories. As described below, however, new teachers are employed disproportionately in the most highly impacted schools in terms of poverty, diversity and second-language learners.

In the most recent cohort, 2017-18, over a third of new teachers taught in schools that are most highly impacted by poverty (35.7%), minority students (38.1%) and/or English-language learners (37.8%). A disproportionately lower percentage of new teachers worked in schools that are the least impacted by poverty (21.2%), minority students (15.8%) and/or English-language learners (14.6%). The new teachers in the cohort were employed in districts having a range of accreditation ratings that included all ratings except for Accredited with Turnaround Plan (of which there are extremely few each year).

A comparison of school context for teachers prepared at traditional and alternative EPPs indicates that new teachers prepared through the alternative route are more likely to teach in the most highly impacted schools than are new teachers prepared through the traditional route. Placement at a highly impacted school was 11 to 13 percentage points greater for alternative route teachers than traditional route teachers. Of alternative teachers in the 2017-18 cohort, 44% taught in high poverty schools (compared to 30.5% from traditional programs), 46.2% taught in high minority schools (compared to 33.6% from traditional programs) and 44.4% taught in high English language learner (ELL) schools (compared to 33.4% from traditional programs).

Comparative information is available in the interactive dashboards by selecting a specific EPP. Interpreting the student demographic maps once an EPP is selected involves understanding the State Reference Line and Agency Reference Line, details which are explained in the information icons on the graphs. In brief, the percentage of completers from the EPP working in a particular type of school (for example, schools with a high proportion of ELL students) is represented by the blue bar, the percentage from all EPPs of that agency type (that is, traditional agencies and alternative agencies) is represented by the red dashed line and the percentage from the full statewide cohort is represented by the green dashed line. Using the mouse cursor to hover over the EPP blue bar will display the exact percentages for each group.

The state map of school districts on the interactive dashboard is color-coded according to the district accreditation rating. Hovering the mouse cursor over a district will provide the district name, accreditation rating and number of teachers hired from the cohort selected. If a specific EPP and/or endorsement area are selected, the number of teachers shown will be specific to the selections.

## New teacher performance

Teacher performance is assessed through annual performance evaluations, as required by Colorado law, section 22-9-106, C.R.S. Educator performance evaluation is designed to continuously support educators' professional growth and, in turn, accelerate student results. School districts can choose to adopt the Colorado State Model Evaluation System or create their own system that meets or exceeds the requirements in State Board rules and aligns to the Teacher Quality Standards. State law requires: that : annual evaluations for all teachers be based on statewide Teacher Quality Standards defining what it means to be an effective teacher; that a teacher's Professional Practices rating must account for half of the annual overall rating; and that a teacher's measures of student learning score must account for the other half of the annual overall rating. Districts are, further, required to report an overall teacher effectiveness rating and an effectiveness rating on each of the Teacher Quality Standards, which is the source of data for the current EPP Report.



To support districts, administrators and teachers in the implementation of this law, CDE provides regional specialists who promote common interpretations of teacher quality, accurate identification of evidence for professional practices and guidance in approaches to the selection of measures of student learning. (For more detail, please refer to <http://www.cde.state.co.us/educatoreffectiveness/smes-teacher>.)

Teacher effectiveness, even for first-year teachers, is influenced by several factors. Preparation at their EPP contributes to effectiveness, as well as additional factors that may not be able to be controlled by the EPP such as the availability of mentorship or coaching, class size, amount of planning time and other contextual factors at the new teacher's school. As a result, the effectiveness ratings of completers from an EPP should not be interpreted in isolation as a reflection of the EPP. Instead, these ratings are only one of several indicators of outcomes.

The 2016-17 cohort is the most recent group with available evaluation ratings because of a one-year time lag between the evaluation year and the reporting year. The 2016-17 cohort finished its preparation programs in 2016-17 and was employed and evaluated as first year teachers in 2017-18. Accordingly, the teachers in the cohort had their evaluation ratings reported by their school districts to CDE in 2018-19.

In 2017-18, approximately 25% of the districts in Colorado participated in a pilot of revised Teacher Quality Standards (TQS). The revised TQS have now been adopted by the State Board of Education and were in use statewide in 2018-19. However, for the 2016-17 cohort, some completers were evaluated under the original TQS and some were evaluated under the revised TQS, depending on their district of employment.

Overall educator effectiveness ratings have four possible categories: Highly Effective, Effective, Partially Effective and Ineffective. For members of the 2016-17 cohort whose evaluation ratings were reported to CDE and who were evaluated on the original TQS, the vast majority received an overall performance rating of either Effective (44.4%) or Highly Effective (12.6%). Of those with ratings reported who were evaluated on the revised TQS, the vast majority also received an overall performance rating of either Effective (54.8%) or Highly Effective (5.2%), but there was a smaller proportion in the Highly Effective category, which is partially influenced by the field-supported and intentional increased rigor of the revisions.

Teacher Quality Standard ratings have five possible categories: Exemplary, Accomplished, Proficient, Partially Proficient and Basic. On each of the TQS, the most commonly received rating by teachers in the 2016-17 cohort was Proficient, followed by the rating of Accomplished. This pattern was evident for each of the TQS, although specific percentages in each rating varied by standard. The Measures of Student Learning indicator has four possible categories: More than Expected, Expected, Less than Expected and Much Less than Expected. On the Measures of Student Learning, the most commonly received rating for the 2016-17 cohort was Expected.

## **New teacher retention, mobility and attrition**

Comparison of employment patterns over time for new teachers contributes to better understanding of the educator workforce across the state. The last outcome that is addressed in this report is the retention, mobility and attrition of new teachers in these cohorts. In this section, the proportion of each cohort is examined that: (1) continues to teach at the same school, (2) continues to teach at a different school, but in the same district, (3) continues to teach, but at a different Colorado school district and (4) does not continue to teach in Colorado public schools. For those who leave the public teaching workforce in-state, differentiation between those who continue to work in Colorado public education, but not teach, and those who leave this system entirely is



presented. Additionally, the employment of the cohort is tracked for additional years, it can be determined whether those who left the teaching workforce return to teaching later.

Currently, two years of retention data can be tracked for the 2015-16 cohort. Because this is the earliest cohort, it is the one with most longitudinal data currently. The first year of retention data for the 2015-16 cohort represents a comparison of the school in which these teachers taught their first year (2016-17) to the school in which they taught their second year (2017-18). In this cohort's second year of teaching (2017-18), seven out of 10 teachers continued to teach in the same school, eight out of 10 continued to teach in the same district and nine out of 10 continued to teach in the Colorado public school system. The following year of retention data (2018-19), which is this cohort's third year of teaching, 53% of the cohort continued to teach in the same school, another 8% continued to teach in the same district but in a different school and 15% taught elsewhere in Colorado's public schools. An additional 2% who had left the teaching workforce in the prior year returned to it. By these teachers' third year of teaching, approximately 22% of the 2015-16 cohort was no longer teaching; 2% of these teachers were working in Colorado public education in another capacity and almost 20% were no longer working in the Colorado public school system. As a third retention year (that is, a fourth year of employment information) becomes available, the time period for the report will be expanded to account for retention activity for three years.

To provide a richer picture across different types of school districts, the retention, mobility and attrition metrics are reported for each of five CDE district setting categories. District setting categories are determined by district population centers and geographic area and include the categories of Denver Metro, Urban-Suburban, Outlying City, Outlying Town, and Remote. For the 2015-16 cohort in each district setting, the percentage of teachers remaining in the same school declined substantially over time. In their second year of teaching, approximately 70-76% retained in their school and in 2018-19, approximately 50-61% remained in the school where they started their teaching careers. Additionally, across all settings a small number of teachers return to the workforce after leaving for a year. Although it is early to interpret patterns across types of districts because many years of retention data are not available to know if these patterns are stable, one pattern that may be emerging is a slightly more stable teaching force in outlying cities and/or outlying towns than in other settings. The extent to which these patterns hold true after additional cohorts' data become available will be evident over time.

## Additional Information for Interpreting the Interactive Dashboards

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In addition to the descriptions and examples provided previously in this summary that is specific to individual metrics and dashboards, following are global points regarding the interactive dashboards (<http://www.cde.state.co.us/educatortalent/edpreprogram-report>).

- The interactive dashboards that accompany this executive summary highlight information specific to an endorsement area, cohort year and/or educator preparation program route.
- When using the interactive EPP Report dashboards, please be sure to hover over the “i” emblems because they are information icons containing important explanatory information about the data in the display to which they are attached. As well, please be sure to read the short narrative description appearing at the top of each dashboard because it provides an overview of the type of data and population included in that dashboard and the overview is unique to each dashboard.
- The upper right corner of each dashboard contains a downward arrow that is a link to where a downloadable data file can be found containing the publicly available data displayed in all of the



dashboards. This may be useful to researchers and others wishing to perform additional analyses with these data. Because these are publicly available data, this easily accessible option removes the need to make a separate data request to obtain them.

- In the upper left corner of each dashboard, when an EPP has been selected from the drop-down menu, a hyperlinked EPP logo appears and clicking it will link to the EPP landing page for their educator preparation programs. This allows interested users direct access to additional information about every EPP in Colorado with one click.
- On the statewide map of Colorado school districts, hovering the mouse cursor over a district will reveal the name of the district and the number of teachers hired from the cohort; if a particular EPP and/or a particular endorsement area is also selected, the number of teachers will be specific to the selections. Additionally, on the statewide map of Colorado school districts appearing on the New Teacher Employment Context dashboard, hovering over a district will also indicate its district accreditation rating.
- One additional dashboard that was not explicitly discussed in this executive summary is the Preparation Program Snapshot, which was developed at the request of many EPPs. For each EPP, the snapshot includes the mission and vision statement, location on the state map, date of most recent authorization or reauthorization, high level enrollment and completion data, the in-state placement rate, top district employers and pass rates on initial licensure examinations. These are designed to be a high-level snapshot of the program, with more detail available by clicking the logo in the upper left corner of the dashboard.

## References

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ACT (2015). *The Condition of Future Educators 2014*. Iowa City: ACT. Retrieved from <http://www.act.org/content/dam/act/unsecured/documents/CCCR-2014-FutureEducators.pdf>

Aragon, S. (March 2018). *Teacher evaluations policy snapshot*. Denver, CO: Education Commission of the States.

Colorado Department of Education (2019). *Colorado's educator shortage: Survey results for the 2018-2019 school year*. Retrieved from <http://www.cde.state.co.us/educatortalent/2018-2019educatorshortagesurveyresults>

Colorado Department of Higher Education (2017). *Teacher shortages across the nation and Colorado: Similar issues, varying magnitudes*. Retrieved from [https://higher.ed.colorado.gov/Publications/Reports/teachereducation/2017/TeacherShortages\\_Nation\\_Colorado\\_Dec2017.pdf](https://higher.ed.colorado.gov/Publications/Reports/teachereducation/2017/TeacherShortages_Nation_Colorado_Dec2017.pdf)

Education Commission of the States (2019). *50-State comparison: Teacher recruitment and retention*. Retrieved from <https://www.ecs.org/50-state-comparison-teacher-recruitment-and-retention/>

Keily, T. (September 2018). *Response to information request on how states evaluate educator preparation programs*. Unpublished document. Denver, CO: Education Commission of the States.

Sutcher, L., Darling-Hammond, L., and Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* Palo Alto, CA: Learning Policy Institute.



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Teacher Preparation Analytics (February 2018). *Measuring what matters: Recommendations from states in the Network for Transforming Educator Preparation*. Washington, DC: Council of Chief State School Officers.



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## Appendix A

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### Definitions

*Academic Year.* The Academic Year includes a 12-month, three semester and/or four quarter period of time running from September through August, fall semester through summer semester, and/or fall quarter through summer quarter and representing all initial licensure completers from authorized Colorado educator preparation programs during that period. For example, the 2017-18 cohort is the group of new teachers who completed its preparation programs during the time period of September 2017 through August 2018, fall semester 2017 through summer semester 2018 and fall quarter 2017 through summer quarter 2018.

*Added Endorsement or Advanced Endorsement.* An endorsement area that is added onto an existing educator license. (Note that some endorsement areas can only be added. Please see the list in the appendix for more detail.)

*Alternative Educator Preparation Program.* A one-year or two-year program of study and training for teacher preparation for a candidate holding a bachelor's degree and an alternative teacher license. Alternative programs must be authorized by the Colorado State Board of Education.

*Cohort.* The Cohort represents all initial licensure completers successfully finishing an authorized Colorado educator preparation programs during that period. For example, the 2017-18 cohort is the group of new teachers who completed its preparation programs during the time period of Sept. 1, 2017, through Aug. 31, 2018; fall semester 2017 through summer semester 2018; and fall quarter 2017 through summer quarter 2018.

*Cohort Year.* The Cohort Year is the 12-month, three semester, and/or four quarter period of time beginning and ending in any of the following terms: Sept. 1 through Aug. 31, fall semester through summer semester, and fall quarter through summer quarter.

*Designated Agency (DA).* A school district, an accredited nonpublic school, a board of cooperative services, an accepted institution of higher education or a nonprofit organization, or any combination thereof, which is responsible for the organization, management and operation of an approved alternative educator preparation program.

*Endorsement Area.* The designation of grade levels, subject matter and/or service specializations for which the candidate is being or has been prepared to teach or provide services.

*Initial Teaching License.* A teaching license issued to a first-time teacher who does not currently hold an initial or professional teaching license. An initial teaching license is referred to as an "initial license" throughout this report.

*In-State Placement Rate.* The proportion of a cohort completers who obtains teaching positions in Colorado public schools the year after they complete their preparation programs. The In-State Placement Rate is not the same as a total job placement rate because the in-state placement rate only reflects the completers who obtain teaching positions in a public school in Colorado and does not include completers who may be teaching out-of-state or teaching in private schools.





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*Retention.* The occurrence of a teacher remaining in a teaching position in the same school, district or state from one Academic Year to the next.

*Traditional Educator Preparation Program.* A program of study and training for educator preparation operated by an institution of higher education in which candidates do not serve as educators of record in the role for which they are being prepared during the program.



## Appendix B

Reporting Elements and Data Sources			
Reporting Elements	Source Agency	Collection Name	Field Details
Enrollment and completion of education candidates in traditional preparation programs	CDHE	SURDS	<a href="https://higher.ed.colorado.gov/Data/Docs.html">See Educator Preparation at https://higher.ed.colorado.gov/Data/Docs.html</a>
Enrollment and completion of education candidates in alternative preparation programs	CDE	DADC	<a href="http://www.cde.state.co.us/datapipeline/per-dadc">http://www.cde.state.co.us/datapipeline/per-dadc</a>
New teacher employment, including district, school, subject area and grade level in which teaching; in-field status; and retention statistics	CDE	Human Resources	<a href="http://www.cde.state.co.us/datapipeline/snap_hr">http://www.cde.state.co.us/datapipeline/snap_hr</a>
New teacher employment context, including proportion of English-language learners, students in poverty and minority students	CDE	Student October Pupil Enrollment	<a href="http://www.cde.state.co.us/datapipeline/snap_studentoctober">http://www.cde.state.co.us/datapipeline/snap_studentoctober</a>
District accreditation ratings	CDE	Performance Framework Reports	<a href="http://www.cde.state.co.us/accountability/performanceframeworks">http://www.cde.state.co.us/accountability/performanceframeworks</a> and <a href="http://www.cde.state.co.us/schoolview/datafiles">http://www.cde.state.co.us/schoolview/datafiles</a>
New teacher performance evaluation ratings	CDE	Human Resources	<a href="http://www.cde.state.co.us/datapipeline/snap_hr">http://www.cde.state.co.us/datapipeline/snap_hr</a>
Initial licensure exam pass rates		Title II Pass Rates	<a href="https://title2.ed.gov/Public/TA/Glossary.pdf">https://title2.ed.gov/Public/TA/Glossary.pdf</a>
Preparation program authorization and reauthorization data	CDE & CDHE	NA	Records maintained internally at state agencies



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Preparation program mission and vision statements	Preparation Programs/ CDE	NA	Targeted collection of narratives in summer 2019
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## Appendix C

Colorado Initial and Advanced Endorsement Areas and Special Services Provider Areas			
Endorsement Area*	Available as Initial License	Available as Added (or Advanced) Endorsement	Special Services Provider**
Administrator	X	X	
Agriculture, Food and Natural Resources	X	X	
Audiologist, School	X	X	X
Business and Marketing Education	X	X	
Counselor, School	X	X	X
Culturally and Linguistically Diverse Bilingual Education Specialist		X	
Culturally and Linguistically Diverse Education		X	
Dance Education	X	X	
Drama Theatre Arts	X	X	
Early Childhood Education	X	X	
Early Childhood Education (ECE) Special Education	X	X	
ECE Special Education: Specialist	X	X	
Elementary Education	X	X	
English Language Arts	X	X	
Family and Consumer Sciences	X	X	
Gifted Education, Core		X	
Gifted Education, Director		X	
Gifted Education, Specialist		X	
Health	X	X	
Instructional Technology	X	X	
Instructional Technology Specialist		X	
Librarian, Teacher		X	
Mathematics	X	X	
Middle School Mathematics	X	X	
Music (K-12)	X	X	
Nurse, School	X	X	X
Occupational Therapist, School	X	X	X
Orientation and Mobility Specialist, School	X	X	X
Physical Education	X	X	
Physical Therapist, School	X	X	X
Principal	X	X	
Psychologist, School	X	X	X
Reading Specialist		X	



Reading Teacher		X	
Science	X	X	
Social Studies	X	X	
Social Worker, School	X	X	X
Special Education Specialist: Deaf/Hard of Hearing	X	X	
Special Education Specialist: Visually Impaired	X	X	
Special Education, Director		X	
Special Education, Generalist	X	X	
Special Education, Specialist		X	
Speech	X	X	
Speech/Language Pathologist, School	X	X	X
Technology Education	X	X	
Visual Arts	X	X	
World Language (American Sign Language, French, German, Italian, Japanese, Latin, Mandarin Chinese, Russian, Spanish)	X	X	
<i>Trade and Industry Education (discontinued, fall 2019)</i>	X	X	

\*Specific endorsement requirements available at <http://www.cde.state.co.us/cdeprof/endorsementrequirements>.

\*\*Special Services Provider endorsements are issued only on Special Services Provider licenses and are not offered as add-ons to teacher licenses.



## Appendix D

### Educator Preparation Program Report Advisory Committee Members

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