



COLORADO

Department of
Higher Education



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Department of Education

**2016 LEGISLATIVE REPORT
EDUCATOR PREPARATION REPORT AY2015-2016**

DECEMBER 2016

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This report was prepared by the Student Success and Academic Affairs Division at the Colorado Department of Higher Education (CDHE) with the assistance of the Office of Educator Preparation, Licensing and Educator Effectiveness at the Colorado Department of Education (CDE) pursuant to the requirements of §23-1-121(6) Colorado Revised Statutes.

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Executive Summary

Significant findings described within this report include:

- The total number of individuals completing an educator preparation program at Colorado colleges and universities during the 2015-16 academic declined by 2.2% from the previous year to 2,472. This is the sixth consecutive year the number of completers has declined.
- The number of individuals completing an alternative licensing program was 796 during 2015-16. This continues to remain consistent over the last two reporting cycles and represents approximately one-quarter (25%) of all the total completers in the state.
- There has been a 24.4% decline in the number of educators completing an educator preparation program at Colorado colleges and universities between the years 2010- 2016.
- In addition to a decline in completers, enrollment in educator preparation programs at institutions of higher education remains at low levels and unchanged from the previous academic year. Significant declines in math, science and English language arts were noted during 2015-16.
- While overall numbers are lower, 2015-16 saw an increase in the number of diverse students enrolled in educator preparation programs. The number of black/African American, Hispanic, Asian and multi-racial candidates all increased as compared to the previous academic year.
- Rural districts continue to have difficulty in recruiting and retaining teachers in historically hard-to-staff endorsement and licensure areas. The overall teacher shortage continues to have a dramatic impact on rural districts, particularly those throughout the eastern plains.

I. Introduction

Pursuant to §23-1-121(6) Colorado Revised Statutes, the Colorado Commission on Higher Education (CCHE) reports annually to the Joint Education Committee of the General Assembly on enrollment in, graduation (completion) rates from, and effectiveness of the review of educator preparation programs at institutions of higher education and designated agencies. This report fulfills this statutory requirement.

This report was completed by the Colorado Department of Higher Education (CDHE) and the Colorado Department of Education (CDE). The materials utilized in this report originate from data submitted annually to the department by the 19 institutions of higher education offering educator preparation. Additional material to supplement the report has been provided by the Colorado Workforce Development Council.

The report is divided into eight sections: an introduction, an analysis of educator preparation completers in traditional institutions of higher education, a review of completers from alternative route educator preparation programs, an examination of the enrollment and enrollment trends for educator preparation programs at Colorado colleges and universities, a review of the demographics of those enrolled in educator preparation programs at institutions of higher education, a summary of the reauthorization and program approvals completed in 2016 and additional areas of focus and recommendations for the Colorado education community throughout 2017 and beyond.

II. Completers Through Traditional Licensure Routes

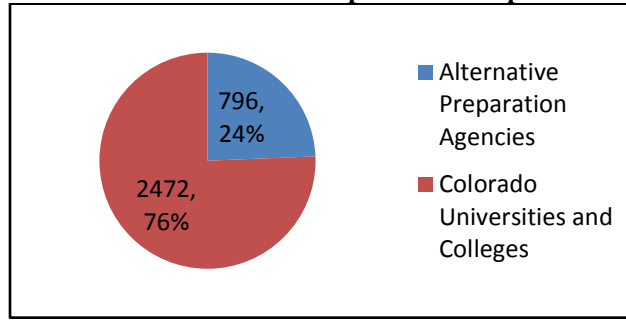
Completer data has become increasingly useful in regards to understanding and forecasting the number of individuals entering the classroom or school as a teacher, administrator or special services provider. The number of completers has a direct correlation to the projected needs of local school districts and has a direct impact on the 899,112 students in Colorado's K12 schools.

The importance of licensure for educators is well-documented and abundant in national and global research. In nearly all cases, unlicensed teachers serving in classrooms resulted in lower achievement rates for students as evidenced by lower assessment scores and decreased high-school completion rates (Darling-Hammond, 2000; Presley, White and Gong, 2005). In general, teachers without a license, earned through a traditional program or an alternative provider, are more likely to be evaluated as ineffective and/or leave the teaching profession within two years of hire. Based on this data, both DHE and CDE continue to support efforts to ensure all teachers are of the highest quality and possess the required licenses and endorsements.

For most Colorado residents, obtaining licensure in the state of Colorado is done primarily through completing an approved educator preparation program ("traditional route") at an established college or university or through a designated agency for alternative teacher preparation ("alternative route"). All combined, 3268 educators completed programs through either a traditional educator preparation program or through a designated agency.

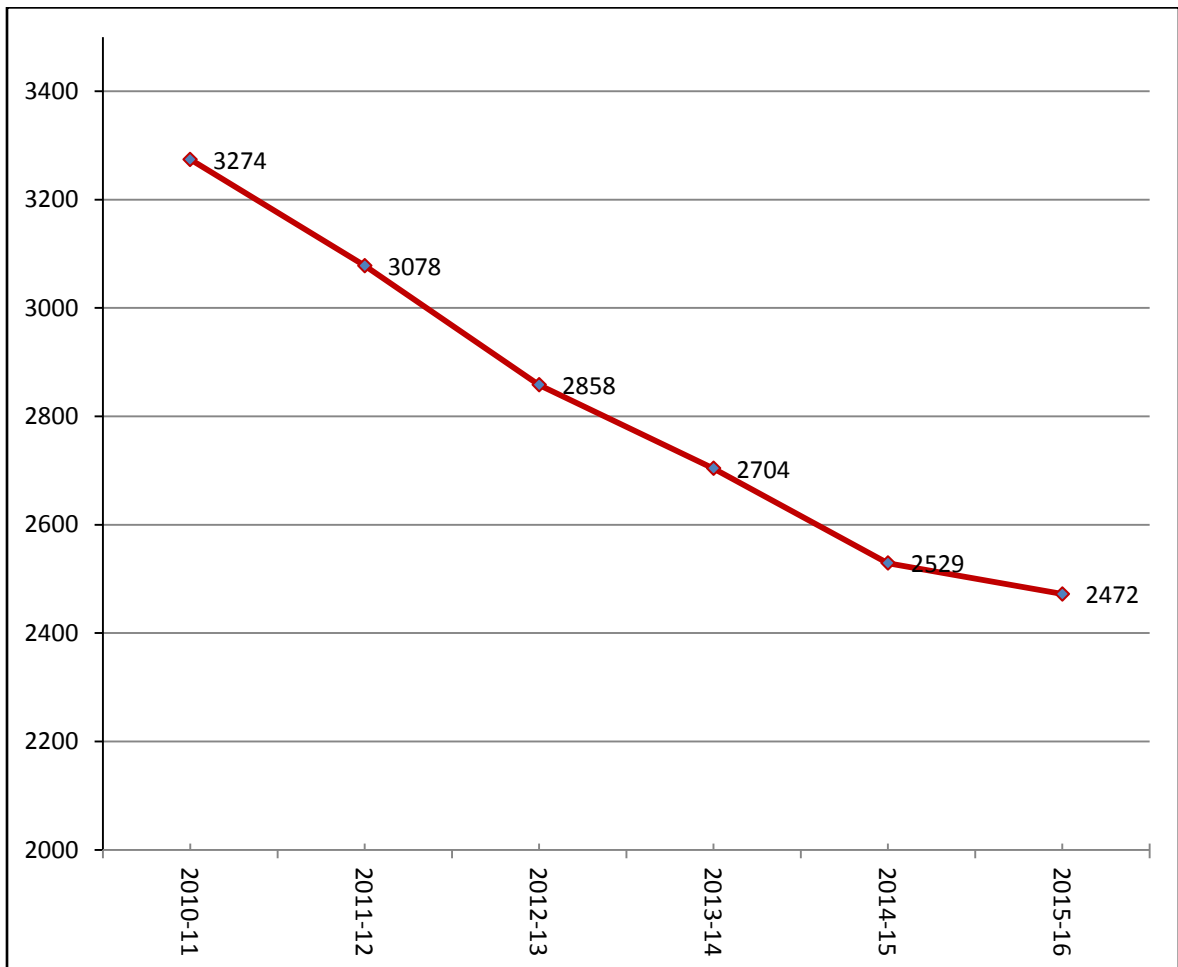
Chart 1 below shows the number and percent of completers from college- and university-based programs versus alternative providers/designated agencies.

Chart 1 - Colorado Educator Preparation Completers 2015-16



During the 2015-16 academic year, 2,472 students completed traditional educator preparation programs at colleges/universities, versus 2,529 completers in 2014-2015, which is a 2% reduction and marks the sixth consecutive year the number of completers from university/college-based educator preparation programs has declined. From 2010 to 2016, there is a decrease of 24.4% in the total number of completers from traditional educator preparation programs at colleges/universities, as illustrated in Chart 2 below.

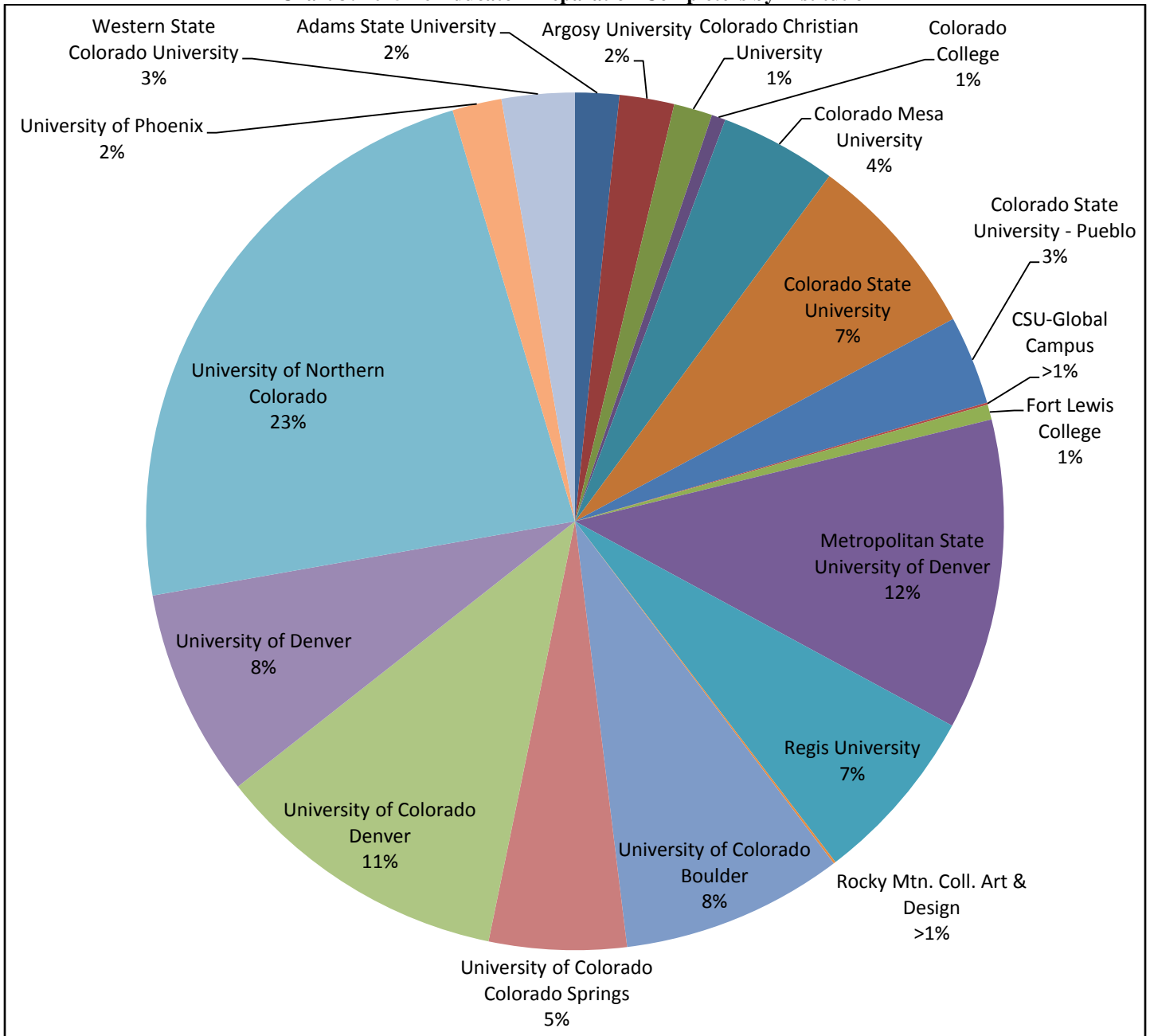
Chart 2 – Colorado Educator Preparation Institution of Higher Education Completers 2010-2016



This downward trend in completer numbers mirrors national and global patterns (USDOE, 2013) related to the ongoing teacher shortage. According to recent studies, less than 5% of high school students are interested in pursuing careers as an educator (ACT, 2016). Primary reasons for this lack of interest in careers in education include: perceptions of job instability, the impact of teacher evaluation systems and financial limitations related to salaries for teachers (Sawchuk, 2014).

Within the “traditional route” students in the state of Colorado are able to complete educator preparation programs at one or more of the 19 state-approved educator preparation providers. In 2015-16 students did complete programs from all of these various institutions of higher education. The University of Northern Colorado had the largest number of completers, 573, encompassing 23% of all completers in the state. Chart 3 below provides a percentage breakdown of completers from colleges and universities during the 2015-16 academic year.

Chart 3: 2015-16 Educator Preparation Completers by Institution



Elementary education programs continue to produce the largest number of completers in the state (751 in 2015-16). Table 1 provides information regarding the endorsement areas for completers at each institution of higher education during the 2015-16 academic year.

Table 1: Completers -- Area of Licensure/Endorsement by Institution

<i>Institution & Total Number of Completers</i>	<i>Completer Licensure/Endorsement Area & Number of Completers</i>
Adams State University – 41 completers	Visual Arts (K-12) 3; Elementary Education 21; English Language Arts 3; World Language 1; Music (K-12) 6; Physical Education 5; Science 1; Social Studies 1
Argosy University – 51 completers	Principal 51
Colorado Christian University – 36 completers	Early Childhood Education 3; Elementary Education 23; English Language Arts 1; Music (K-12) 1; Science 1; Social Studies 1; Special Education Generalist 6
Colorado College – 13 completers	Visual Arts (K-12) 1; Elementary Education 7; English Language Arts 4; Music (K-12) 1
Colorado Mesa University – 109 completers	Visual Arts (K-12) 1; Elementary Education 36; English Language Arts 10; Culturally and Linguistically Diverse Education 3; Mathematics 8; Music (K-12) 5; Physical Education 10; Principal 10; Science 8; Social Studies 10; Special Education Generalist 4; Undeclared or Unknown 4
Colorado State University – 175 completers	Agriculture , Food and Natural Resources 6; Visual Arts (K-12) 16; Business and Marketing Education 1; Business Education 2; Early Childhood Education 28; English Language Arts 37; Family and Consumer Sciences 6; World Language 8; Business and Marketing 2; Mathematics 12; Music (K-12) 9; Science 23; Social Studies 22; Speech 1; Technology Education 2
Colorado State University – Pueblo – 83 completers	Visual Arts (K-12) 3; Elementary Education 21; English Language Arts 5; Instructional Technology Specialist 1; Instructional Technology Teacher 1; Culturally and Linguistically Diverse Education 22; Mathematics 5; Music (K-12) 6; Physical Education 8; Science 2; Social Studies 6; Special Education Generalist 3
CSU – Global Campus – 2 completers	Principal 2
Fort Lewis College – 14 completers	Visual Arts (K-12) 1; Drama Theatre Arts 1; Early Childhood Education 2; Elementary Education 3; English Language Arts 4; World Language 1; Culturally and Linguistically Diverse Education 2; Physical Education 1; Social Studies 1
Metropolitan State University of Denver – 290 completers	Visual Arts (K-12) 19; Early Childhood Education 18; Elementary Education 117; English Language Arts 30; World Language 5; Culturally and Linguistically Diverse Education 9; Mathematics 11; Music (K-12) 5; Physical Education 15; Science 12; Social Studies 22; Special Education Generalist 36

<i>Institution & Total Number of Completers</i>	<i>Completer Licensure/Endorsement Area & Number of Completers</i>
Regis University – 166 completers	Visual Arts (K-12) 2; Business Education 2; Early Childhood Education 4; ECE Special Education 2; Elementary Education 45; English Language Arts 6; Culturally and Linguistically Diverse Education 49; Mathematics 5; Principal 39; Reading Specialist 7; Reading Teacher 1; Science 6; Social Studies 9; Special Education Generalist 14; Undeclared or Unknown 1
Rocky Mountain College of Art and Design – 2 completers	Visual Arts (K-12) 2;
University of Colorado Boulder – 207 completers	Elementary Education 58; English Language Arts 18; World Language 3; Culturally and Linguistically Diverse Education 52; Mathematics 15; Music (K-12) 22; Reading Teacher 8; Science 18; Social Studies 13
University of Colorado Colorado Springs – 128 completers	Early Childhood Education 6; ECE Special Education 6; Elementary Education 52; English Language Arts 3; World Language 1; Gifted Education Specialist 4; Culturally and Linguistically Diverse Education 1; Mathematics 3; Principal 21; Reading Specialist 1; Reading Teacher 2; Science 7; Social Studies 14; Special Education Generalist 13
University of Colorado Denver – 276 completers	Administrator 18; ECE Special Education: Specialist 24; Elementary Education 39; English Language Arts 8; World Language 3; Instructional Technology Specialist 9; Culturally and Linguistically Diverse Education 35; Mathematics 4; Principal 71; Reading Teacher 20; Teacher Librarian 1; Science 8; Social Studies 16; Special Education Generalist 14 Teacher Librarian 9
University of Denver – 194 completers	Visual Arts (K-12) 5; ECE Special Education: Specialist 7; Elementary Education 49; English Language Arts 7; World Language 2; Mathematics 7; Principal 94; Science 5; Social Studies 10; Teacher Librarian 3; Undeclared or Unknown 5
University of Northern Colorado – 573 completers	Administrator 2; Visual Arts (K-12) 14; Drama Theatre Arts 8; Early Childhood Education 40; ECE Special Education 17; ECE Special Education: Specialist 16; Elementary Education 259; English Language Arts 12; World Language 5; Gifted Education Specialist 2; Culturally and Linguistically Diverse Education 67; Mathematics 12; Music (K-12) 29; Physical Education 13; Principal 66; Science 12; Social Studies 15; Special Education Director 8; Special Education Generalist 60; Special Education Specialist: Deaf/Hard of Hearing 8
University of Phoenix – 46 completers	Elementary Education 6; English Language Arts 3; Mathematics 1; Principal 24; Social Studies 12
Western State Colorado University – 68 completers	Visual Arts (K-12) 6; Elementary Education 15; English Language Arts 6; World Language 2; Mathematics 1; Music (K-12) 1; Physical Education 5; Principal 18; Science 5; Social Studies 6; Special Education Generalist 3

Individuals completed programs in 34 licensure areas at Colorado colleges and universities during the 2015-16 academic year. Of particular note are the 84 completers in secondary mathematics, marking the first time since 2011-12 where less than 100 individuals completed the high-demand program. A complete breakdown of completers by endorsement/licensure areas is included in Table 2 below. A list of institutions' abbreviations can be found in Appendix A.

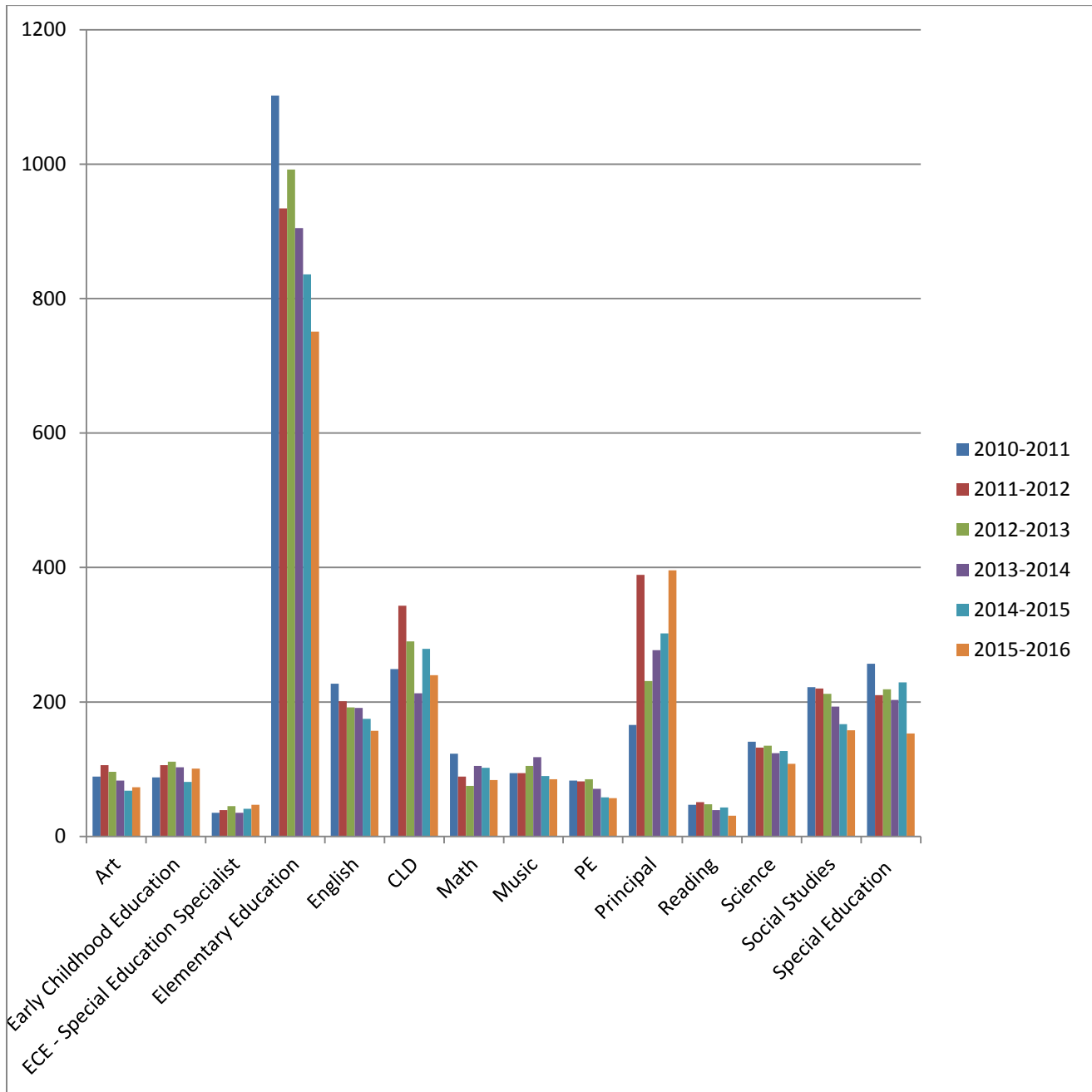
Table 2: Institution of Higher Education Educator Preparation Program Completers by Endorsement/Licensure Areas

Endorsement/Licensure Area	AY 15-16 Completers	Completers by Institution
Administrator	20	UCD 18; UNC 2
Agriculture, Food and Natural Resources	6	CSU 6
Visual Arts (K-12)	73	ASU 3; CC 1; CMU 1; CSU 16; CSUP 3; FLC 1; MSUC 19; RU 2; RMCAD 2; DU 5; UNC 14; WSCU 6
Business and Marketing Education	1	CSU 1
Business Education	4	CSU 2; RU 2
Culturally and Linguistically Diverse Education	240	CMU 3; CSUP 22; FLC 2; MSUD 9; RU 49; UCB 52; UCCS 1; UCD 35; UNC 67
Drama Theatre Arts	9	FLC 1; UNC 8
Early Childhood Education (ECE)	101	CCU 31 CSU 28; FLC 2; MSUD 18; RU 4; UCCS 6; UNC 40
ECE Special Education	25	RU 2; UCCS 6; UNC 17
ECE Special Education: Specialist	47	UCD 24; DU 7; UNC 16
Elementary Education	751	ASU 21; CCU 23; CC 7; CMU 36; CSUP 21; FLC 3; MSUD 117; RU 45; UCB 58; UCCS 52; UCD 39; DU 49; UNC 259; UP 6; WSCU 15
English Language Arts	157	ASU 3; CCU 1; C 4; CMU 10; CSU 37; CSUP 5; FLC 4; MSUD 30; RU 6; UCB 18; UCCS 3; UCD 8; DU 7; UNC 12; UP 3; WSCU 6
Family and Consumer Sciences	6	CSU 6
World Language	31	ASU 1; CSU 8; FLC 1; MSUD 5; UCB 3; UCCS 1; UCD 3; DU 2; UNC 5; WSCU 2
Gifted Education Specialist	6	UCCS 4; UNC 2
Instructional Technology Specialist	10	CSUP 1; UCD 9
Instructional Technology Teacher	1	CSUP 1
Mathematics	84	CMU 8; CSU 12; CSUP 5; MSUD 11; RU 5; UCB 15; UCCS 3; UCD 4; DU 7; UNC 12; UP 1; WSCU 1
Music (K-12)	85	ASU 6; CCU 1; CC 1; CMU 5; CSU 9; CSUP 6; MSUD 5; UCB 22; UCD 29; WSCU 1
Physical Education	57	ASU 5; CMU 10; CSUP 8; FLC 1; MSUD 15; UNC 13; WSCU 5
Principal	396	AU 51; CMU 10; CSUG 2; RU 39; UCCS 21; UCD 711 DU 94; UNC 66; UP 24; WSCU 18
Reading Specialist	8	RU 1; UCCS 1

Endorsement/Licensure Area	AY 15-16 Completers	Completers by Institution
Reading Teacher	31	RU 1; UCB 8; UCCS 2; UCD 20
Teacher Librarian	1	UCD 1
Science	108	ASU 1; CCU 1; CMU 8; CSU 23; CSUP 2; MSUD 12; RU 6; UCB 18; UCCS 7; UCD 8; DU 5; UNC 12; WSCU 5
Social Studies	158	ASU 1; CCU 1; CMU 10; CSU 22; CSUP 6; FLC 1; MSUD 22; RU 9; UCB 13; UCCS 14; UCD 16; DU 10; UNC 15; UP 12; WSCU 6
Special Education Director	8	UNC 8
Special Education Generalist	153	CCU 6; CMU 4; CSUP 3; MSUD 36; RU 14; UCCS 13; UCD 14; UNC 60; WSCU 3
Special Ed. Specialist: Deaf/Hard of Hearing	8	UNC 8
Special Ed. Specialist: Visually Impaired	0	
Speech	1	CSU 1
Technology Education (previously Industrial Arts)	2	CSU 2
Undeclared or Unknown	10	CMU 4; RU 1; DU 5

Specific teaching and administrative areas show variability in terms of the numbers of completers during the last three years. Elementary education remains the most consistently popular endorsement area (30.3% of all completers), as the total numbers of completers in other endorsement areas continue to fluctuate. Significant numbers of educators continue to complete programs leading to principal licensure (396 in 2015-16) and culturally and linguistically diverse endorsements (240). Simultaneously, relatively low numbers of completers can be found in the world languages (31), math (84), science (108) and early childhood education (101) domains – all of which continue to be areas of high demand for school districts due to the limited number of licensed educators in these fields. Chart 4 below highlights this variance.

Chart 4 – Institution of Higher Education Completers by Area (minimum 30 completers in 2015-16 AY)



III. Completers Through Alternative Licensure Routes

In contrast to declining completer numbers at traditional educator preparation programs at colleges and universities, alternative teacher licensure programs remained largely consistent, with a minor decrease of 20 completers in 2015-16. During the 2014-15 academic year, 796 individuals completed an alternative licensure program from one of the 25 designated agencies authorized to provide alternative teacher preparation. Of those, 25% completed programs in elementary education and 35% in the identified high-needs areas of special

education, mathematics, science and foreign/world language combined. Table 3 lists the number of alternative program completers by designated agency during the 2014-15 academic year.

**Table 3: Alternative Teacher Licensure Program Completers by Designated Agency
2015-16**

Designated agency	# of completers	% of total completers	Endorsement Areas
Archdiocese of Denver	25	3%	EC Education 3; Elementary Education 3; English Language Arts 2; French 1; Latin 1; Math 4; PE 7; Science 3; Spanish 1
ASPIRE: University of Colorado Denver	183	24%	Agriculture 2; Visual Arts 2; Business 3; Dance 1; Drama Theatre Arts 3; Elementary Education 50; English Language Arts 30; Math 21; Music 2; Science 29; Social Studies 4; Special Education 30; Speech 1; Spanish: 4; Chinese: 1
Boulder Journey School	35	5%	EC Education 35
Cal Frazier Teacher Fellows Program/School Leaders for Colorado	5	>1%	Elementary Education 1; Math 1; PE 1; Science 1; Social Studies 1
Centennial BOCES	34	4%	Visual Arts 1; Business 2; EC Education 1; Elementary Education 9; English Language Arts 5; Instructional Technology 2; Math 3; Music 1; Science 1; Social Studies 5; Spanish 4
Colorado Christian University	17	2%	Visual Arts 1; Business 1; Drama Theatre Arts 1; EC Education 1; Elementary Education 4 English Language Arts 2; Math 1; Science 1; Spanish 1 Special Education 4
Colorado State University - Pueblo	14	2%	Elementary Education 1; English Language Arts 2; French 1; Math 2; PE 2; Science 1; Special Education 4 Technology Education 1
Denver Public Schools	47	6%	Elementary Education 5; Math 5; Science 8; Special Education 29
Douglas County School District	2	>1%	Marketing 1; Instructional Technology 1
Eagle Rock School and Professional Development	4	>1%	Math 1; Music 1; PE 1; Science 1

Designated agency	# of completers	% of total completers	Endorsement Areas
East Central BOCES	9	1%	Visual Arts 2; English Language Arts 3; PE 1; Science 2; Social Studies 1
Friends' School	27	3%	EC Education 5; Elementary Education 22
Metropolitan State University of Denver	80	10%	Visual Arts 2; Business/Marketing 2; Drama Theatre Arts 2; EC Education 5 Elementary Education 19; English Language Arts 5; Math 9; PE 2; Science 10; Social Studies 1; Special Education 17; Spanish 6
Mountain BOCES	37	5%	Visual Arts 1; Business 1; Business/ Marketing 2; EC Education 2; Elementary Education 9; English Language Arts 1; Health 1; Math 11; Music 1; Science 3; Social Studies 3; Teacher Librarian 1; Spanish 1
Northeast BOCES	25	3%	Visual Arts 2; Elementary Education 15; Math 5; PE 3
Northwest BOCES	11	1%	Elementary Education 4; English Language Arts 1; Science 2; Social Studies 1; Technology Education 1; Spanish 2
Public Education & Business Coalition	74	10%	Visual Arts 1; Business 2; Elementary Education 29; English Language Arts 9; Math 9; PE 2; Science 13; Social Studies 9
Pikes Peak BOCES	43	6%	Visual Arts 3; Drama Theatre Arts 1; EC Education 2; Elementary Education 7; English Language Arts 2; Family/Consumer Studies 1; Instructional Technology 2; Math 4; Music 2; PE 2; Science 3; Social Studies 1; Special Education 6; Technology Education 2; Spanish 5
San Luis Valley BOCES	6	>1%	Visual Arts 1; Math 1; PE 2; English Language Arts 1; Science 1

Designated agency	# of completers	% of total completers	Endorsement Areas
Southeast BOCES	11	1%	Elementary Education 2; English Language Arts 1; Math 1; Science 3; Social Studies 3; Special Education 1
Stanley British Primary School	52	7%	EC Education 43; Elementary Education 9
University of Colorado - Colorado Springs	15	2%	English Language Arts 6; Math 2; Science 3; Social Studies 2; Spanish 2
West Central Licensing Program	7	1%	Agriculture 1; Elementary Education 2; PE 2; Science 1; Spanish 1
Western State Colorado University	11	1%	Elementary Education 1; English Language Arts 3; Math 3; PE 1; Science 2; Special Education 1
TOTAL	796		

IV. Enrollment

Unlike the declining numbers of completers, enrollment in educator preparation programs at institutions of higher education remained largely unchanged during the 2015-16 academic year, with an increase of 5 additional students enrolled as compared to the previous academic year. This increase is partially due to the inclusion of data from three additional institutions (Argosy University, Colorado Mountain College and Colorado State University – Global Campus) that recently began to offer educator preparation programs in Colorado.

It is notable that the 2014-15 academic year posted the lowest enrollment totals dating back to 2010. Accordingly, the state of Colorado continues to see record low enrollment numbers for educator preparation programs at institutions of higher education. We expect this to continue to have a negative impact on the number of completers for the next four-to-five years.

These decreased enrollments also align with national and global trends regarding teacher shortages. Table 4 below provides both cumulative enrollment figures and individual enrollments for the 18 colleges/universities that included at least one program completer during the 2014-15 academic years.

Table 4: Program Enrollments by Institution, 2010-16

<i>Institution</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>Change 2015-2016</i>
Adams State University ¹	486	473	378	314	246	175	188	+ 7.4%
Argosy University	-	-	-	-	-	-	51	n/a
Colorado Christian University	227	245	214	209	195	165	201	+21.8%
Colorado College	62	59	55	42	43	37	26	-30%
Colorado Mesa University	364	219	257	260	200	217	228	+ 5.1%
Colorado Mountain College	-	-	-	-	-	-	92	n/a
Colorado State University	772	879	795	576	868	892	792	-1%
Colorado State University – Global Campus	-	-	-	-	-	-	40	n/a
Colorado State University - Pueblo	387	411	367	325	280	282	334	+18.4%
Fort Lewis College	219	227	180	170	180	171	157	-8.2%
Metropolitan State University of Denver ²	1868	1931	2001	1913	1770	1448	1687	+16.5%
Regis University ⁴	907	1139	732	869	706	545	509	-6.6%
Rocky Mtn. Coll. Art & Design	55	59	47	40	20	39	35	-10.2%
University of Colorado Boulder	871	694	823	786	712	803	708	-11.8%
University of Colorado Colorado Springs	426	351	458	713	655	778	757	-2.7%
University of Colorado Denver	1339	1255	990	866	864	774	725	-6.3%
University of Denver ⁵	174	213	329	350	239	289	255	-11.8%
University of Northern Colorado	3770	3986	3689	3498	3222	2900	2822	-2.7%
University of Phoenix ³	782	746	431	289	195	265	255	-3.8%
Western State Colorado University	140	111	122	88	98	97	71	-26.8%
Grand Total	12950	13103	11987	11387	10537	9891	9896	+ >1%

¹2013 data includes students enrolled as part of the Colorado Boettcher Teacher Residency Program.

²2013 enrollment data includes student enrollment within the post-baccalaureate ALP program.

³University of Phoenix did not report all Elementary Education enrollees in 2009.

⁴2013 enrollment data includes students within the post-baccalaureate archdiocese education program.

⁵University of Denver 2013 enrollment data includes students enrolled as part of the Denver Teacher Residency Program.

Institution of Higher Education–Based Undergraduate, Post-Baccalaureate, and Graduate Enrollments

Institutions of higher education offer a variety of programs to support the development of educators. While some focus on the undergraduate population, other colleges/universities offer post-baccalaureate and graduate entry points into the education professions. This varied approach is beneficial to both the institutions and the student population, as it provides multiple avenues towards teacher licensure and a career in education. A list of the enrollments at the various levels for each institution is listed in Table 5 below.

Table 5: Program Enrollments for all Endorsement/Licensure Areas by Level by Institution, 2015-16

Institution	Undergraduate	Post-Baccalaureate	Graduate	Grand Total
Adams State University	63	2	123	188
Argosy University			51	51
Colorado Christian University	196	5		201
Colorado College	2	24		26
Colorado Mesa University	145	45	42	228
Colorado Mountain College	92			92
Colorado State University	609	183		792
Colorado State University – Global Campus		17	23	40
Colorado State University – Pueblo	198	76	61	334
Fort Lewis College	144	13		157
Metropolitan State University of Denver	1374	202	122	1687
Regis University	133	22	354	509
Rocky Mtn. Coll. Art & Design	35			35
University of Colorado Boulder	341	94	286	708
University of Colorado - Colorado Springs	614		143	757
University of Colorado - Denver	63		663	725
University of Denver	46		214	255
University of Northern Colorado	2071	12	751	2822
University of Phoenix	127	21	107	255
Western State Colorado University	18		53	71
Grand Total	6271	716	2993	9980¹
% Grand Total	62.8%	7.2%	30.0%	

¹ Enrollment total of 9980 varies from program enrollment by institution (9896) due to individual students enrolled in more than one program at one or more institutions leading to duplicative counts.

Institution of Higher Education–Based Enrollment by Licensure/Endorsement Area over the Last Five Years

Changes in the enrollment population in the various license and endorsement areas continue to have an impact on Colorado’s education environment. In historical areas of high need, enrollments have fluctuated and follow the continuing trend of declining numbers of students enrolled in these educator preparation programs. In 2015-16, Colorado saw an overall 7.4% decrease in total enrollments as compared to previous years with notable decreases in math (-4.5%), science (-4.1%) and English language arts (-8.2%). Increases in the number of individuals pursuing licenses or endorsements in culturally and linguistically diverse education (+27.6%), early childhood education (+58%) and early childhood education – special education (+80.5%) may correlate to increased demand for these roles based on state and national guidelines associated with teacher/pupil ratios and directives related to equity in education. Table 6 provides data related to program enrollments by endorsement licensure areas within Colorado’s institutions of higher education.

Table 6: College/University-Based Program Enrollments by Endorsement/Licensure Areas, 2010-2016

Endorsement/Licensure Area	2010	2011	2012	2013	2014	2015	2016	% change 15-16
Administrator	61	53	20	25	29	30	41	+36.7%
Agriculture, Food and Natural Resources	18	24	25	29	53	48	54	+12.5%
Visual Arts (K-12)	389	402	382	338	289	315	318	+1.0%
Business and Marketing Education	34	15	8	1	4	7	5	-28.6%
Business Education	30	28	16	21	17	13	10	-23.1%
CLDE Specialist: Bilingual Education	42	34	36	21	4	7	4	-42.9%
Culturally and Linguistically Diverse Education	1204	1165	1091	1152	970	1010	1289	+27.6%
Drama Theatre Arts	72	59	63	59	70	73	68	+6.8%
Early Childhood Education	537	662	659	576	590	476	752	+58.0%
ECE Special Education	91	114	99	106	85	113	204	+80.5%
ECE Special Education: Specialist	180	198	179	210	191	193	196	+1.6%
Elementary Education	4213	4072	3801	3533	3254	2886	2840	-1.6%
English Language Arts	931	1001	778	771	726	730	670	-8.2%
Family and Consumer Sciences	34	45	28	23	31	36	28	-16.7%
World Languages	222	234	228	180	169	151	135	-10.6%
Gifted Education Specialist	59	51	46	35	31	27	28	+3.7%
Instructional Technology Specialist	26	20	35	36	30	29	31	+6.7%
Instructional Technology Teacher	28	50	52	26	23	7	6	-14.3%
Business and Marketing	--	--	--	--	1	1	2	+100.0%
Mathematics	470	505	424	449	428	422	403	-4.5%
Music (K-12)	430	511	578	571	572	542	515	-5.0%
Physical Education	398	371	337	281	245	219	220	-0.5%
Principal	926	768	858	762	819	778	819	+5.3%
Reading Specialist	--	21	59	90	61	47	41	-12.8%
Reading Teacher	252	221	170	165	149	162	152	-6.2%
Teacher Librarian	96	144	34	18	11	25	12	-52.0%
Science	536	539	498	470	482	489	469	-4.1%
Social Studies	973	1189	978	859	750	700	669	-4.4%
Special Education Director	53	58	46	44	44	44	35	-20.5%
Special Education Generalist	1342	1379	1187	1203	1094	1009	839	-16.8%
Special Education Specialist	8	8	3	1	4	1	0	-100.0%
Special Education Specialist: Deaf/Hard of Hearing	36	39	24	22	16	24	32	+33.3%
Special Education Specialist: Visually Impaired	51	40	7	7	8	6	3	-50.0%
Speech	10	22	22	14	9	11	9	-18.2%
Teacher Librarian (requires 1 or more years of teaching experience)	71	51	29	14	9	10	32	+220.0%
Technology Education (previously Industrial Arts)	4	4	7	9	21	15	12	-20.0%
Undeclared or Unknown	13	13	1	19	3	36	40	-11.1%
Grand Total	12950	13103	11987	11227	11292	10692	9896	-7.4%

V. Demographics

For students enrolled in educator preparation programs, the demographics of age, race and ethnicity, and gender remains stable. In general, Colorado’s emerging teaching and educational administrative work force tends to be young, female and white/non-Hispanic. One important factor to note, however, is that this demographic data only includes those students enrolled in educator preparation programs at colleges/universities. Demographic data from the alternative certification and licensure programs is not collected at this time, and, therefore, not included.

Gender

As seen in Table 6, more than three-quarters (75.45%) of all students enrolled in an educator preparation program are female. As a percentage, the number of male teachers has increased during the last five years, but the increase has been minimal and, when evaluated with the decrease in the total numbers of students enrolled in educator preparation programs, reflects a decrease of 113 male teachers from the previous academic year.

Table 6: Institution of Higher Education-Based Educator Preparation Program Enrollments For All Endorsement/Licensure Areas by Gender, 2009-2015

Gender	2009	2010	2011	2012	2013	2014	2015	2016
Female	8418 76.10%	9852 76.08%	9992 76.26%	9143 76.27%	8613 76.72%	7946 75.65%	7464 75.45%	7609 76.89%
Male	2639 23.86%	3087 23.84%	3103 23.68%	2828 23.59%	2601 23.17%	2523 24.02%	2410 24.36%	2279 23.02%
Unknown	8 0.07%	13 0.10%	12 0.09%	23 0.19%	14 0.12%	35 0.33%	17 .17%	8 .08%
Grand Total	11062	12950	13103	11987	11227	10504	9891	9896

Race and Ethnicity

Racial and ethnic diversity among black/African American (non-Hispanic) and Hispanic candidates showed significant increases in 2015-16. The number of black/African American candidates increased by 29 and the number of enrolled Hispanic educators throughout Colorado increased by 149 to 1375 – the highest total in the last six years. The number of Asian students enrolled in educator preparation programs increased by 14 and those reporting more than one race/ethnicity increased 44 to a total of 257 candidates (2.6% of all enrolled students). Table 7 provides additional detail regarding the racial and ethnic composition of candidates.

Table 7: Endorsement/Licensure Areas by Race and Ethnicity, 2011-2016

Federal Race and Ethnicity Categories	2011	2012	2013	2014	2015	2016	Percentage 2016
Asian	204	189	164	160	133	147	1.5%
Black or African American, non-Hispanic	266	253	224	204	193	222	2.2%
Hawaiian or Pacific Islander	13	16	12	12	13	11	>1%
Hispanic ¹	1261	1315	1329	1218	1226	1375	13.9%
Native American or Alaskan Native	116	106	92	74	76	76	>1%
Unknown Ethnicity	1727	1395	1279	1001	862	735	7.4%
White, non-Hispanic	9384	8538	7924	7575	7145	7064	71.4%
More than one race/ethnicity (non-Hispanic)	128	180	207	227	213	257	2.6%
Non-Resident Alien	24	30	35	33	40	41	>1%
Grand Total	13103	11987	11227	10504	9891	9896	

¹ Under the new federal categories, “Hispanic” is prioritized over other categories. That is, if an individual claims “Hispanic” ethnicity, they cannot claim any other category. Accordingly, “More than one race or ethnicity” is for non-Hispanics only.

Age

The majority (79%) of enrolled candidates are under the age of 35. This pattern has been consistent since 2009. Inclusion of demographic data from alternative licensure programs would likely result in an increase in the numbers of students in the 35+ stratum. Table 8 provides detail regarding the age of students enrolled in educator preparation programs in Colorado colleges and universities during the 2015-16 academic year.

Table 8: Institution of Higher Education-Based Educator Preparation Program Enrollments For All Endorsement/Licensure Areas by Age, 2009-2016

Age	2009	2010	2011	2012	2013	2014	2015	2016
24 years or younger	5087 45.99%	5487 42.37%	5887 44.93%	5732 47.82%	5441 48.46%	4989 47.50%	4868 49.22%	4876 49.27%
25-34 years	3513 31.76%	4358 33.65%	4283 32.69%	3803 31.73%	3499 31.17%	3269 31.12%	3075 31.09%	2973 30.04%
35+ years	2638 23.85%	3323 25.66%	3163 24.14%	2631 21.95%	2465 21.96%	2246 21.38%	2095 21.18%	2047 20.69%
Grand Total	11062	12950	13103	11987	11227	10504	9891	9896

Note: Some students are in more than one age bracket because they had birthdays at some point during the academic year that moved them from one age bracket to the next. The Grand Total, however, reflects the number of unduplicated students.

The age demographics of educator preparation differ from the total population of students enrolled at four-year institutions, as educator preparation students tend to be older. For students in all programs within Colorado four-year colleges and universities, 90.05% (147,840 of 164,172) of students are under 40 years of age, while educator preparation programs also have nearly 21% of students older than 35. Further, educator preparation

programs are comprised of 50.73% of students above age 24, where the general Colorado population reflects only 22.43% of students older than 24.

V. Reauthorization and Programmatic Approval

CDHE and CDE monitor educator preparation providers through periodic and regular programmatic review. As stipulated in 23-1-121(4)(a)(I), C.R.S., the Colorado Commission on Higher Education (CCHE) and CDHE, in conjunction with the State Board of Education (SBoE) and CDE, are required to review all educator preparation providers not more frequently than once every five years to ensure the programs meet the statutory requirements for reauthorization.

In addition to on-campus reauthorization site visits, both CDE and CDHE review all new educator preparation program proposals submitted by institutions of higher education. Upon successful review by CDE and CDHE staff, new program proposals are approved by both the SBoE and CCHE.

Reauthorization

During the 2016 calendar year, the educator preparation providers at the following institutions underwent reauthorization review:

- Argosy University
- Colorado Christian University
- Colorado Mountain College
- Colorado State University – Pueblo
- Western State Colorado University

In all instances, review teams are comprised of academic experts in the field of educator preparation, individuals familiar with the P20 pipeline in Colorado and, when possible, a local K12 practitioner from a partner district associated with the institution. Per statute, each reauthorization visit coincided with accreditation visits from national accreditation agencies (when applicable) to reduce or eliminate duplicative reporting.

Programmatic Approval

During the 2016 calendar year, the following new programs were approved by the Colorado State Board of Education and/or the Colorado Commission for Higher Education:

- Administrator Licensure at Western State Colorado University
- Bachelor of Arts in Inclusive Elementary Education at the University of Colorado Colorado Springs
- Bachelor of Arts in Early Childhood Education at Adams State University
- Education Doctorate in Leadership at Adams State University
- Culturally and Linguistically Diverse Bilingual Education Specialist at the University of Colorado Denver
- Approval of the Relay Graduate School of Education as an educator preparation provider within Colorado
- Masters of Arts in Education with Teacher Licensure at Fort Lewis College

- Bachelor of Arts in Elementary Education at the University of Colorado Boulder
- Principal Licensure at Colorado Christian University

VI. Areas of Focus and Recommendations

In 2017, CDHE and CDE will embark on various initiatives designed to support educator preparation providers and the educator population throughout Colorado. These ventures center on ensuring Colorado compliance with new federal regulations regarding the oversight of educator preparation entities in the state, modifying and adopting best practices regarding teacher quality and educator preparation program review, continuing to support rural districts in their need to recruit and retention effective classroom educators and supporting existing initiatives such as concurrent enrollment, post-secondary workforce readiness and educator effectiveness.

Areas of Focus

The Educator Preparation, Licensure and Educator Effectiveness division of CDE began the task of analyzing and aligning the current rules established with licensure in 2014. After extensive effort in collecting and analyzing stakeholder feedback and public commentary, the new rules for Colorado licensure were adopted in 2016. These new rules translate to a more streamlined licensing experience for both new and existing educators.

Supporting the recruitment and retention of educators within rural school districts in Colorado continues to be an area of focus for the Student Success and Academic Affairs division of CDHE. With the passage of Senate Bill 16-106, DHE has become the administrator of a program designed to support rural teacher recruitment and retention through specific action steps adopted by the Colorado State Legislature. In November, 2016 an institution of higher education will be awarded the right to host and help administer these programs in conjunction with CDE and DHE and the Colorado Community College System. It is expected that these initiatives will result in more cohesive avenues connecting educators and these rural districts will develop a more robust and stable educator workforce.

The ongoing changes within the higher education sector continues to present challenges to both agencies – particularly related to institutions that offer educator preparation services in multiple states and in on-line environments. Both Educator Preparation and Licensing at CDE and Educator Preparation at DHE continue to keep abreast of ongoing changes related to institutional changes that are impacting the higher education sector throughout the United States. It is anticipated that ongoing communication between the two agencies will help mitigate any potential issues with impacted institutions.

Recommendations

A general understanding regarding the long-term decline of educator numbers in Colorado has been widely developed and the state urgently needs to increase the number of individuals interested in pursuing a career in education. Accordingly, it is recommended that higher education institutions, Colorado state agencies, non-profit entities and local school districts begin to develop a plan of action that addresses the systemic issues causing and related to the teacher shortage impacting all regions of the state. The Colorado BOCES Association has actively proposed the development of a plan that includes solutions related to remedying the

issue of educator shortages and both CDE and DHE, along with members of the larger education and legislative communities should participate in the development of this plan.

Programmatic modification should continue to be reviewed by both CDE and CDHE to align with national trends regarding outcome-based assessments, multi-disciplinary curriculum design and instruction and adherence to district needs regarding culturally and linguistically diverse (CLD) endorsement and other areas of licensure perceived as “high needs.” Further, an initial study into the structure and content contained within Colorado’s graduate programs in education (e.g. M.Ed. and M.A.T.) should be undertaken to ensure program quality, academic rigor and alignment with the needs of local school districts and community partners. This will not only ensure that practicing educators are being exposed to current and emerging educational theory and practice, but will also directly benefit the students in their charge. Ensuring that Colorado teachers are well prepared for teaching throughout the 21st century continues to be a primary objective of both the Colorado Department of Education and the Colorado Department of Higher Education.

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Appendix A: Institutions' Abbreviations

ASU – Adams State University
AU – Argosy University
CCU – Colorado Christian University
CC – Colorado College
CMU – Colorado Mesa University
CSU – Colorado State University
CSUG – Colorado State University – Global Campus
CSUP – Colorado State University Pueblo
FLC – Fort Lewis College
JIU – Jones International University
MSUD – Metropolitan State University of Denver
RU – Regis University
RMCAD – Rocky Mountain College of Art and Design
UCB – University of Colorado Boulder
UCCS – University of Colorado Colorado Springs
UCD – University of Colorado Denver
DU – University of Denver
UNC – University of Northern Colorado
UP – University of Phoenix
WSCU – Western State Colorado University