

Trends in Educator Preparation and Employment in South Dakota

Presented by:

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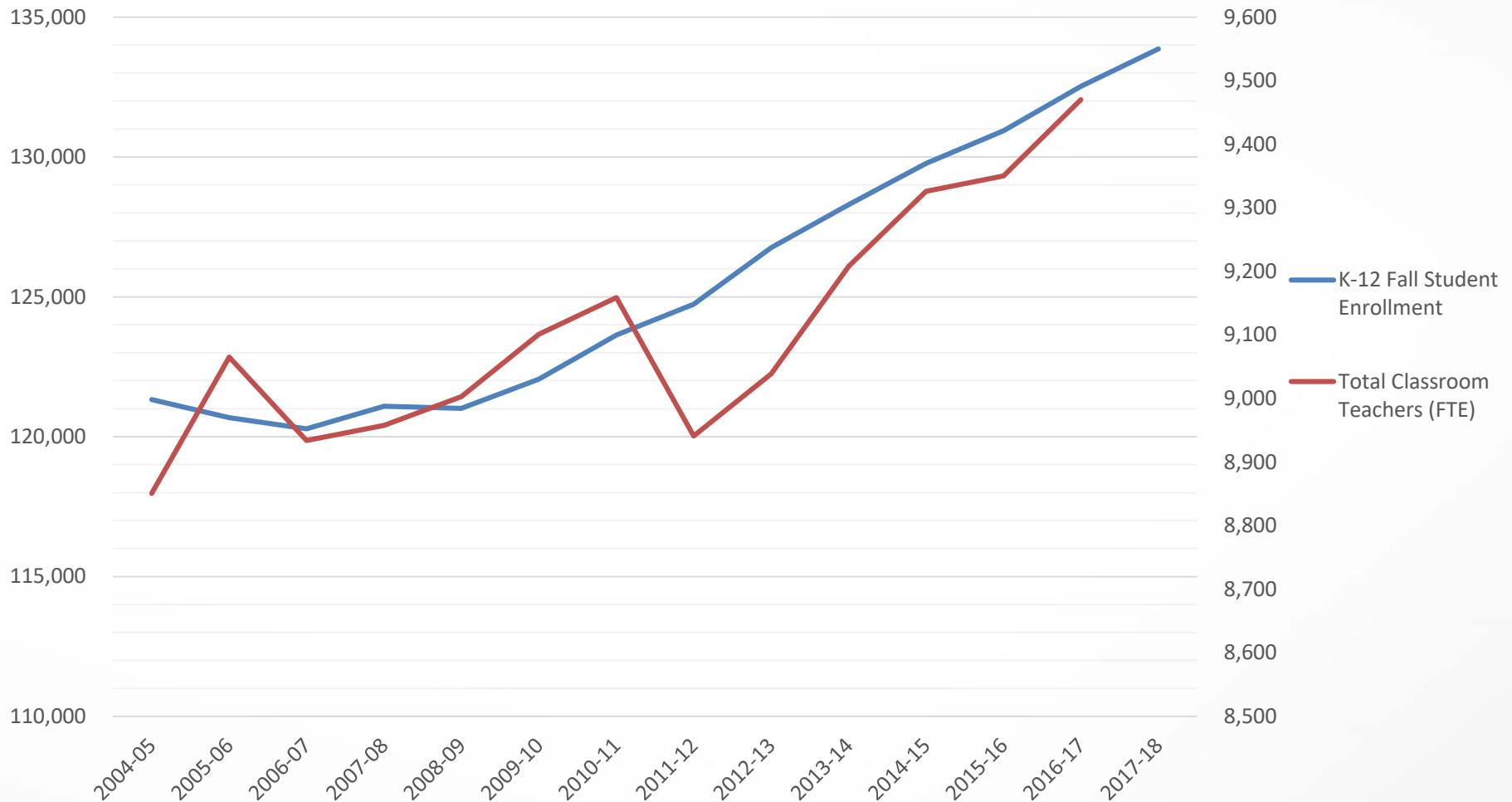
06/20/2018

Setting the Stage: Purpose & Source Data

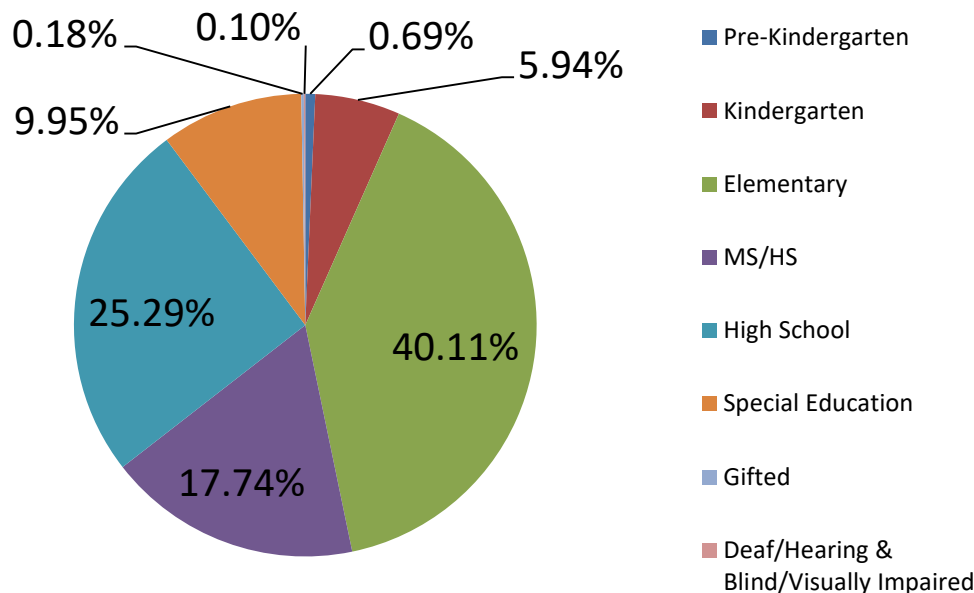
- **Purpose:** Examine South Dakota teacher pipeline
- **Goal:** Help the committee to frame SD data in the national context
- **Data sources:** SD DOE data sets, South Dakota Retirement System, IPEDS federal reports, Board of Regents Teacher Graduate Reports

Overview of the South Dakota Teaching Field

South Dakota: Number of elementary and secondary school teachers and students, 2005-2018



South Dakota: Distribution of Teachers by Grade Span/ Type 2016-17



- Elementary/ Self-Contained is largest group of teachers (nearly 40% of all FTE).
- If combined with Kindergarten, Elementary is greater than Middle and High School combined.

Pre-Kindergarten Teachers FTE	66.7
Kindergarten Teachers FTE	572.57
Elementary Teachers FTE	3864
MS/HS Teachers FTE	1709.43
High School Teachers FTE	2436.27
Special Education Teachers FTE	958.38
Gifted Teachers FTE	17.47
Deaf/Hearing & Blind/Visually Impaired Teachers FTE	9.31
TOTAL	9634.13

South Dakota: Overview of the field

2016-17 Year

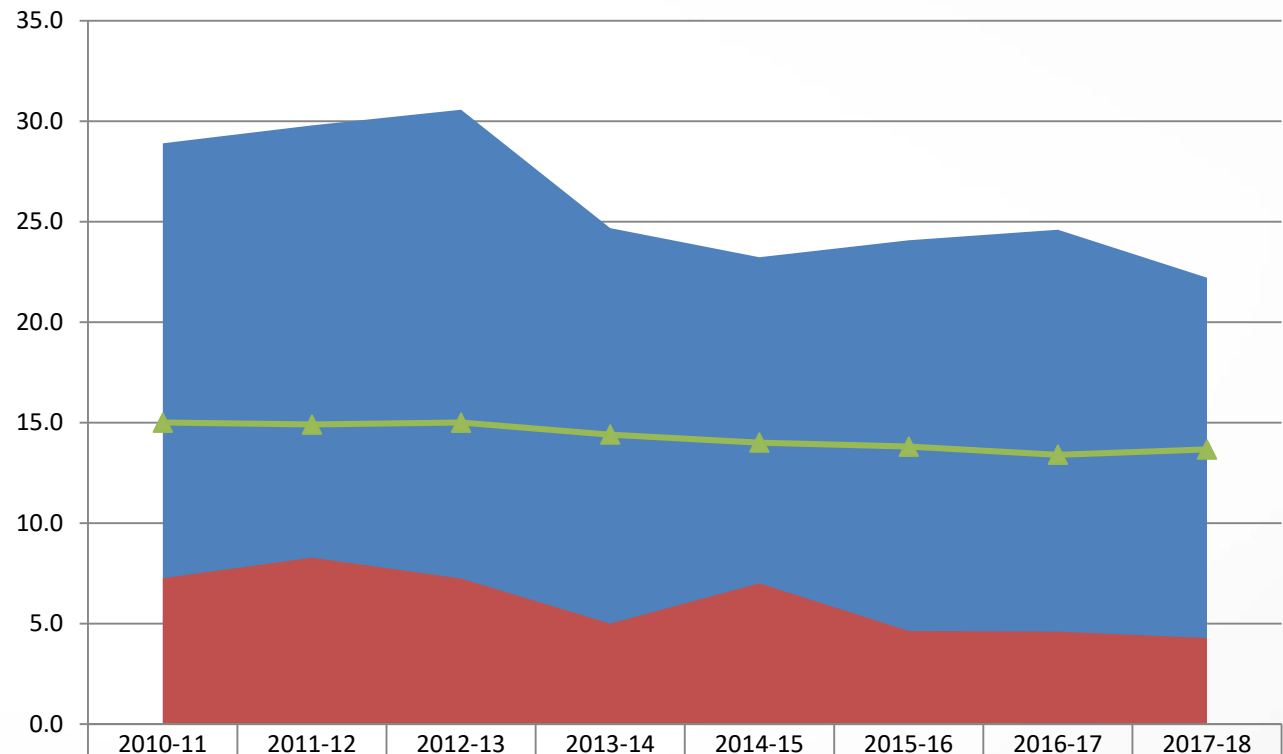
Of the 9,634.13 Teacher FTE in South Dakota:

Teachers on Plans of Intent:	654	Number of Non-Certified Educators:	64.0
Percent of Teachers with Advanced Degrees:	34.7%	Average District Beginning Salary:	\$37,680
Average Years of Experience:	14.1	Average Salary:	\$46,922
Number Students (K-12 Fall Enrollment):	132,520	Student to Teacher Ratio (K-12):	14.1 : 1

SOURCE: SD DOE Statistical Digest, Plans of Intent from Personnel Record Form (PRF)

South Dakota: District norms

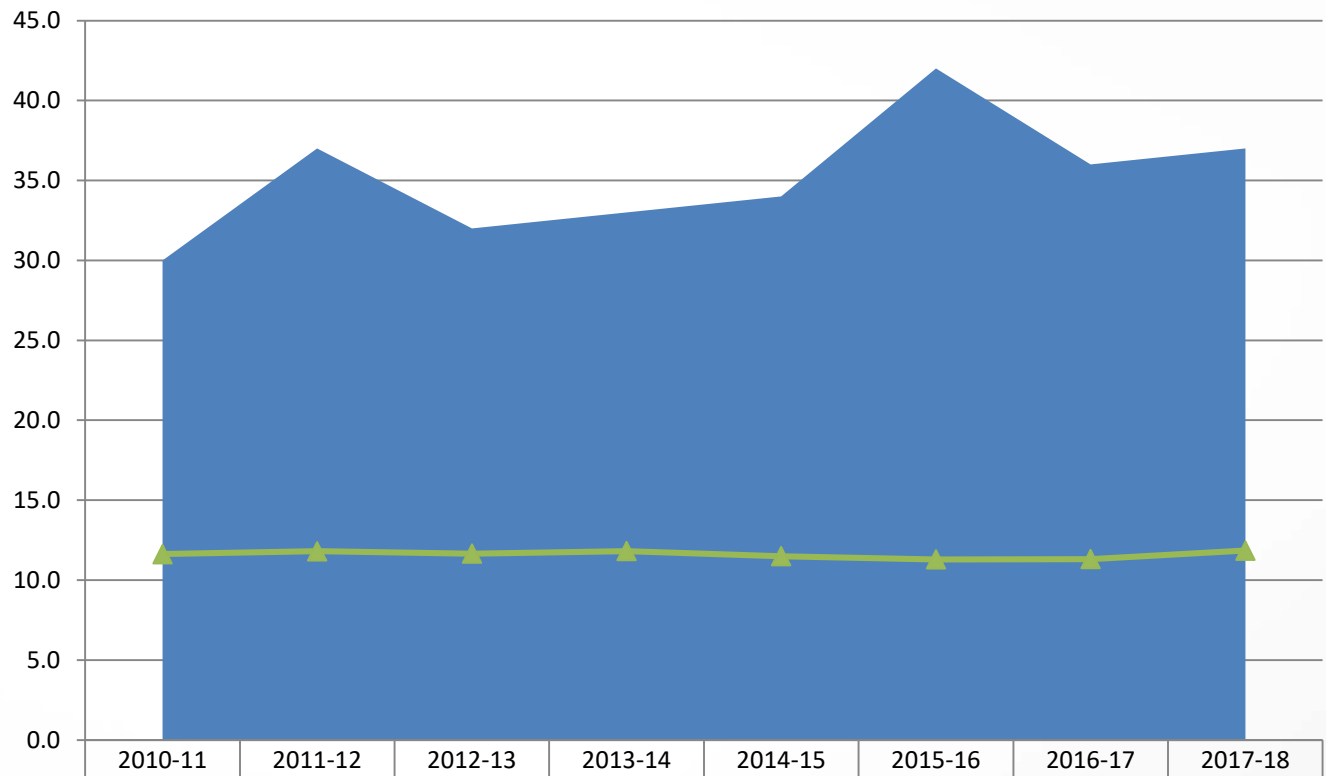
Teacher average years experience



Max Average years Experience (teacher)	28.9	29.8	30.6	24.7	23.2	24.1	24.6	22.2
Min Average Years experience (teacher)	7.3	8.3	7.2	5.0	7.0	4.6	4.6	4.3
Average Years Experience (teacher)	15.0	14.9	15.0	14.4	14.0	13.8	13.4	13.7

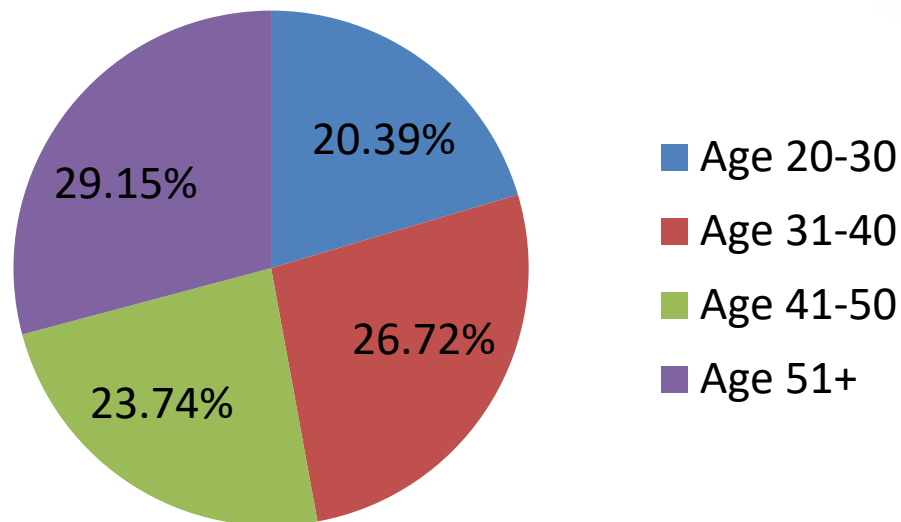
South Dakota: District norms

Administrator average years experience



Max Average Administrator experience	30.0	37.0	32.0	33.0	34.0	42.0	36.0	37.0
Min Average Administrator experience	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Administrator experience	11.6	11.8	11.7	11.8	11.5	11.3	11.3	11.9

South Dakota: Age distribution of teachers 2016-17

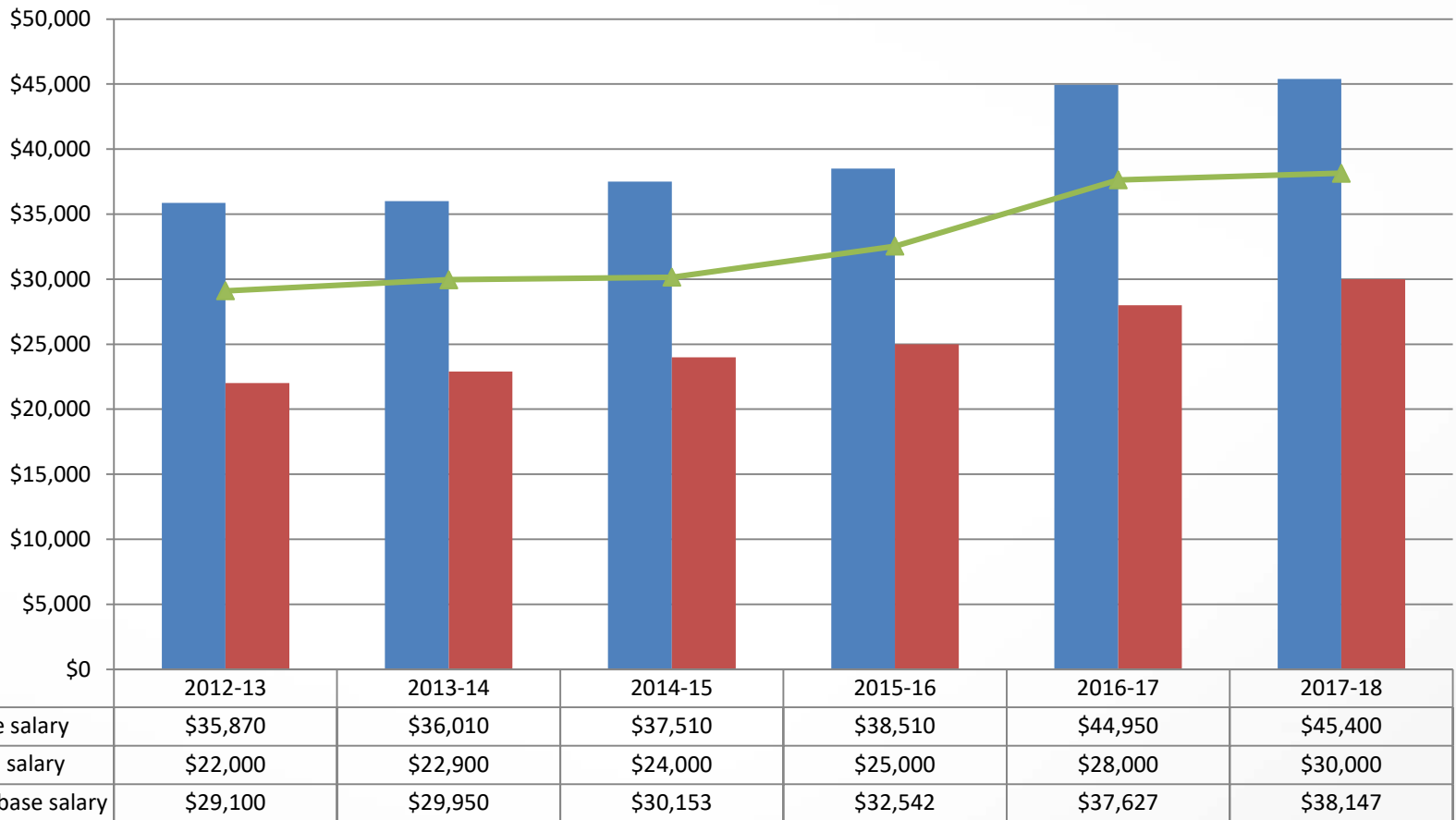


- About 30 % of teachers in the state are over the age of 51
- SD has seen the most growth in the numbers of younger teachers, and a decline in teachers over the age of 51

Age 20-30	1,951.18
Age 31-40	2,556.24
Age 41-50	2,271.32
Age 51+	2,788.69

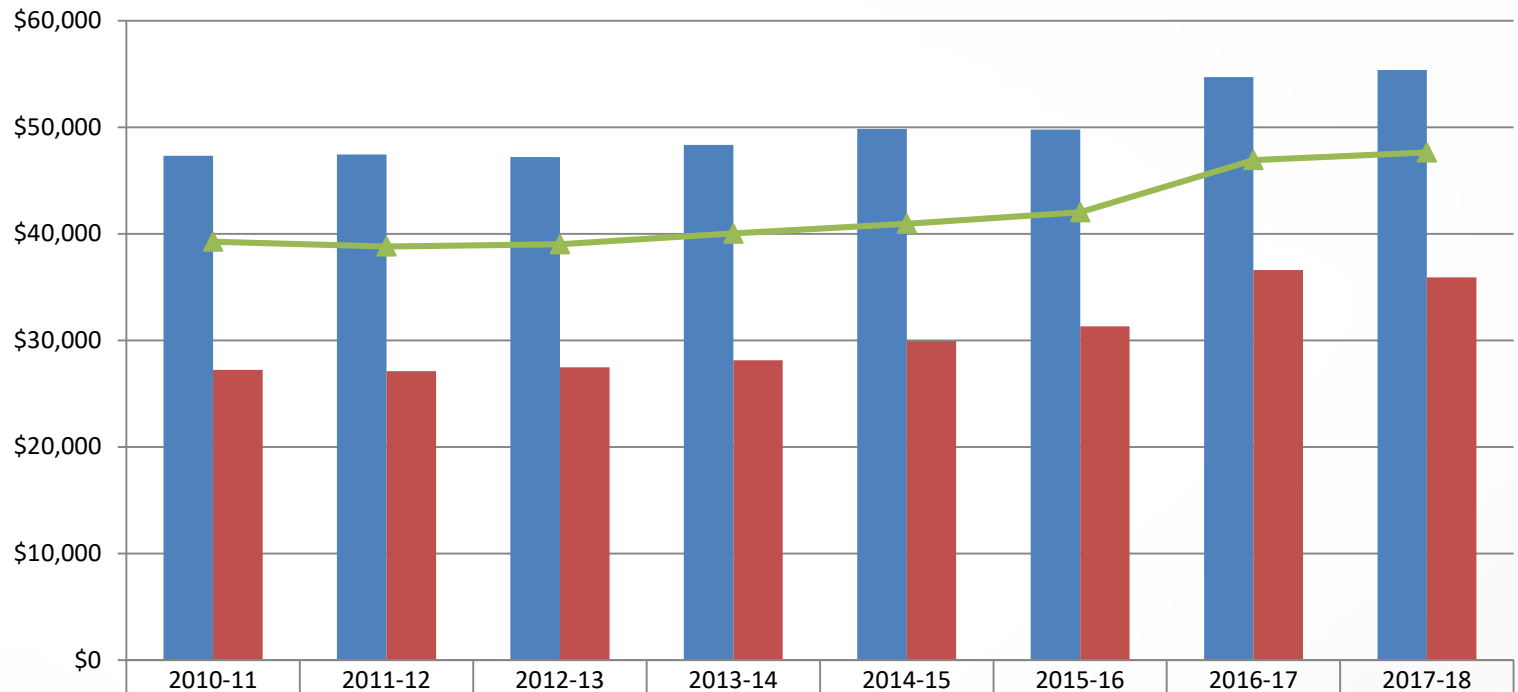
South Dakota: District norms

Teacher average starting/base salary



South Dakota: District norms

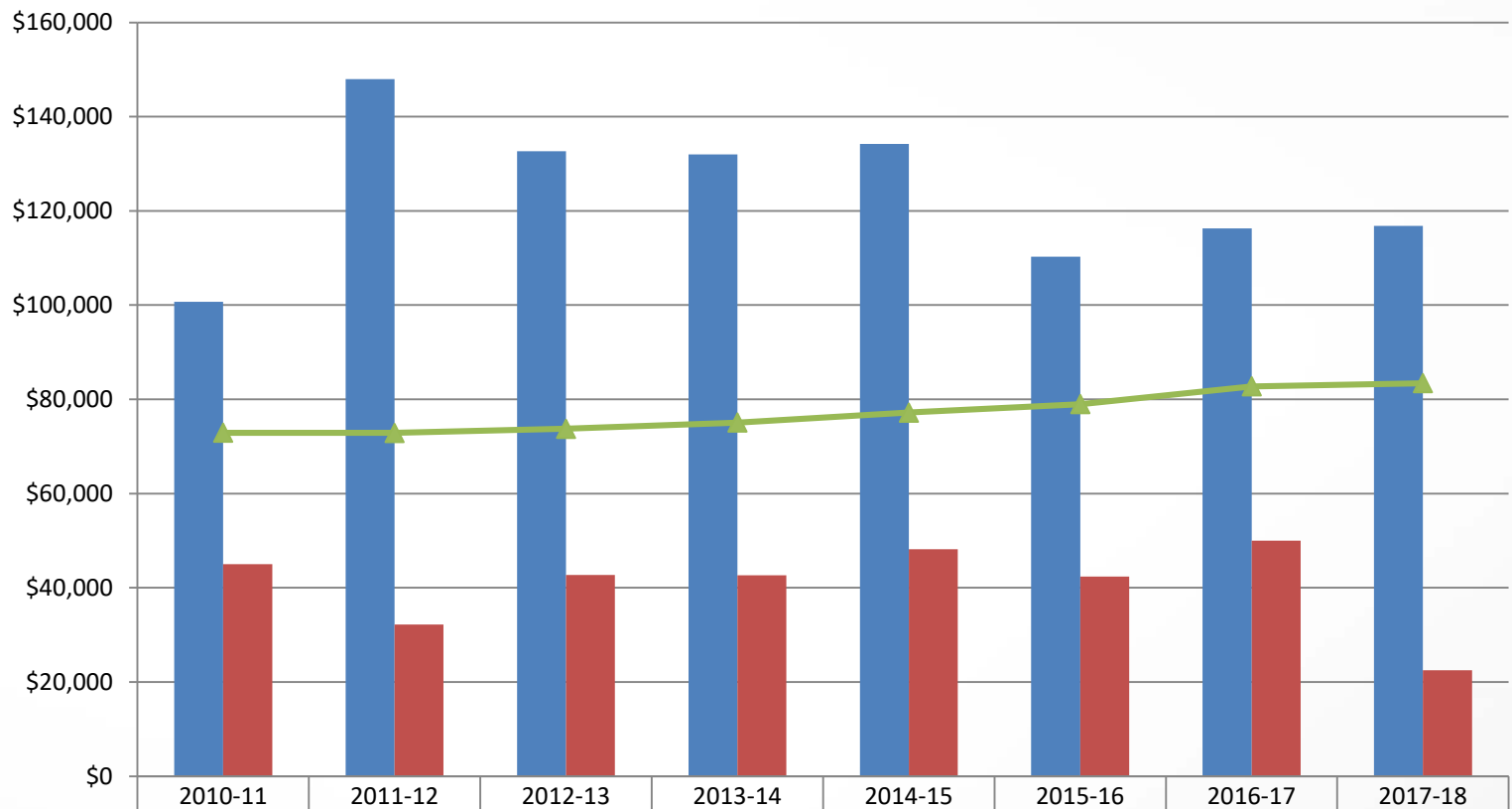
Teacher average salary (not total compensation)



	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Max Average Teacher Salary	\$47,315	\$47,438	\$47,196	\$48,343	\$49,825	\$49,778	\$54,703	\$55,353
Min Average Teacher Salary	\$27,212	\$27,093	\$27,479	\$28,125	\$29,916	\$31,303	\$36,587	\$35,906
Average Salary	\$39,253	\$38,807	\$39,018	\$40,023	\$40,935	\$42,025	\$46,922	\$47,631

South Dakota: District norms

Administrator average salary (not total compensation)



Max Average Administrator Salary	\$100,679	\$148,000	\$132,663	\$132,000	\$134,213	\$110,301	\$116,278	\$116,827
Min Average Administrator Salary	\$45,046	\$32,213	\$42,717	\$42,657	\$48,193	\$42,417	\$50,000	\$22,500
Average Administrator Salary	\$72,904	\$72,863	\$73,758	\$75,057	\$77,184	\$78,993	\$82,754	\$83,432

2017-18 Headcount by Assignment Area

Assignment Category	Total 2018 Head Count	Public	Non-Public School District	Tribal/BIE School	Cooperative or Multi-District	State Special School	Alternative School	Virtual Providers
Administrators	740	607	80	44	6	2	1	0
Career and Technical Education	882	765	44	24	23	2	1	23
English Language Learner	71	70	1	0	0	0	0	0
Fine Arts	327	283	27	11	3	0	0	3
Language Arts	1,871	1,666	97	81	4	5	4	14
Math	1,354	1,178	85	71	3	4	1	12
Military	6	4	0	2	0	0	0	0
Miscellaneous	1,038	950	39	38	7	2	0	2
Music	559	500	53	2	0	1	0	3
Non-Credit	5,110	4,664	279	142	10	15	0	0
PE-Health	659	568	51	27	3	1	2	7
Religion	60	1	59	0	0	0	0	0
Science	1,074	927	69	53	3	4	2	16
Elementary	3,877	3,375	353	146	1	0	0	2
Social Science	1,145	982	85	52	4	4	2	16
Special Education	1,209	1,091	18	50	35	12	3	
World Language	261	177	37	29	1	0	0	17
	20,243	17,808	1,377	772	103	52	16	115

South Dakota: Key pieces of pipeline data

2016-17 "Other" Certificates (Preliminary)			Number of Graduates from South Dakota Teacher Prep- Programs 2015-16 (most recent complete data available)	
Number of Certificates Awarded to non-SD graduates:	288			
Number of Alternative (Non-TFA) Certificates Awarded**:	65		Board of Regents Universities:	509
Number of Teach for America Teachers:	27		Private Universities:	161
TOTAL First Time Certificates Issued:		1,119		

** New Alternative Certificate Structure in 2017-18 with new certification rules

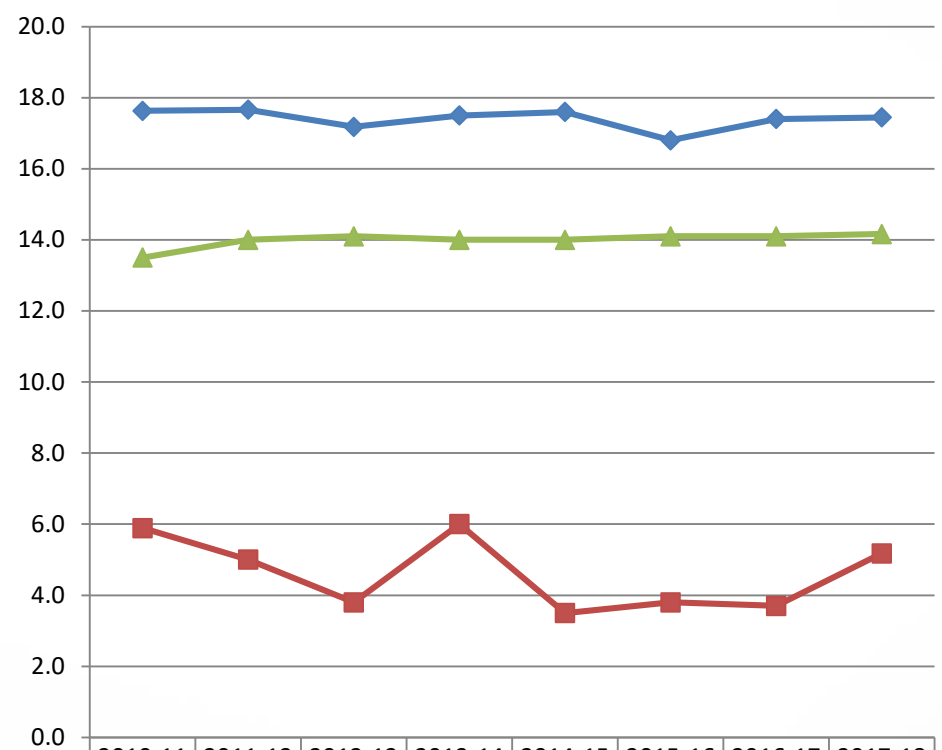
5 Year Projections: Teacher Need

Need to meet student growth



South Dakota: District Norms

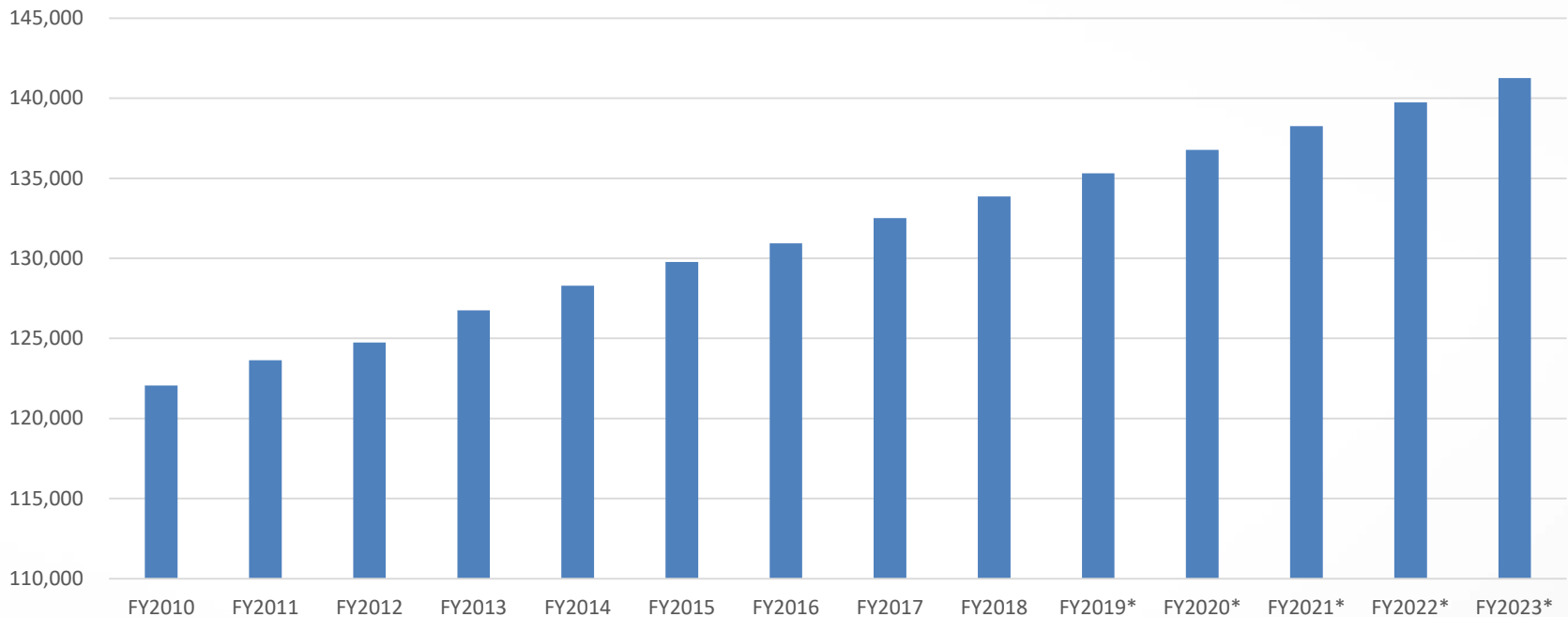
Average Student to Teacher Ratio



Statewide
average
hovers
around 14.0

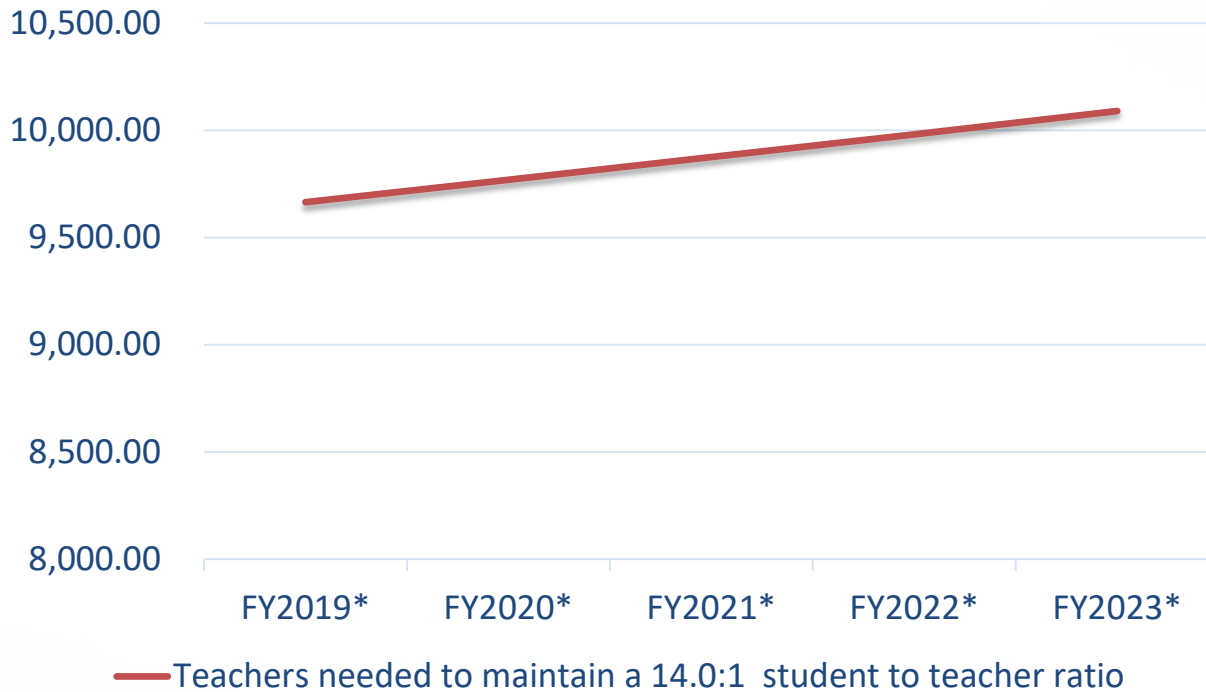
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
◆ Max Student to Teacher Ratio	17.6	17.7	17.2	17.5	17.6	16.8	17.4	17.4
■ Min Student to Teacher Ratio	5.9	5.0	3.8	6.0	3.5	3.8	3.7	5.2
▲ Statewide Student to Teacher Ratio	13.5	14.0	14.1	14.0	14.0	14.1	14.1	14.2

South Dakota: K-12 student enrollments including 5 year projections



Projections call for enrollments to increase by about 7,400 over the next 5 years

South Dakota: Teacher need to meet anticipated student growth

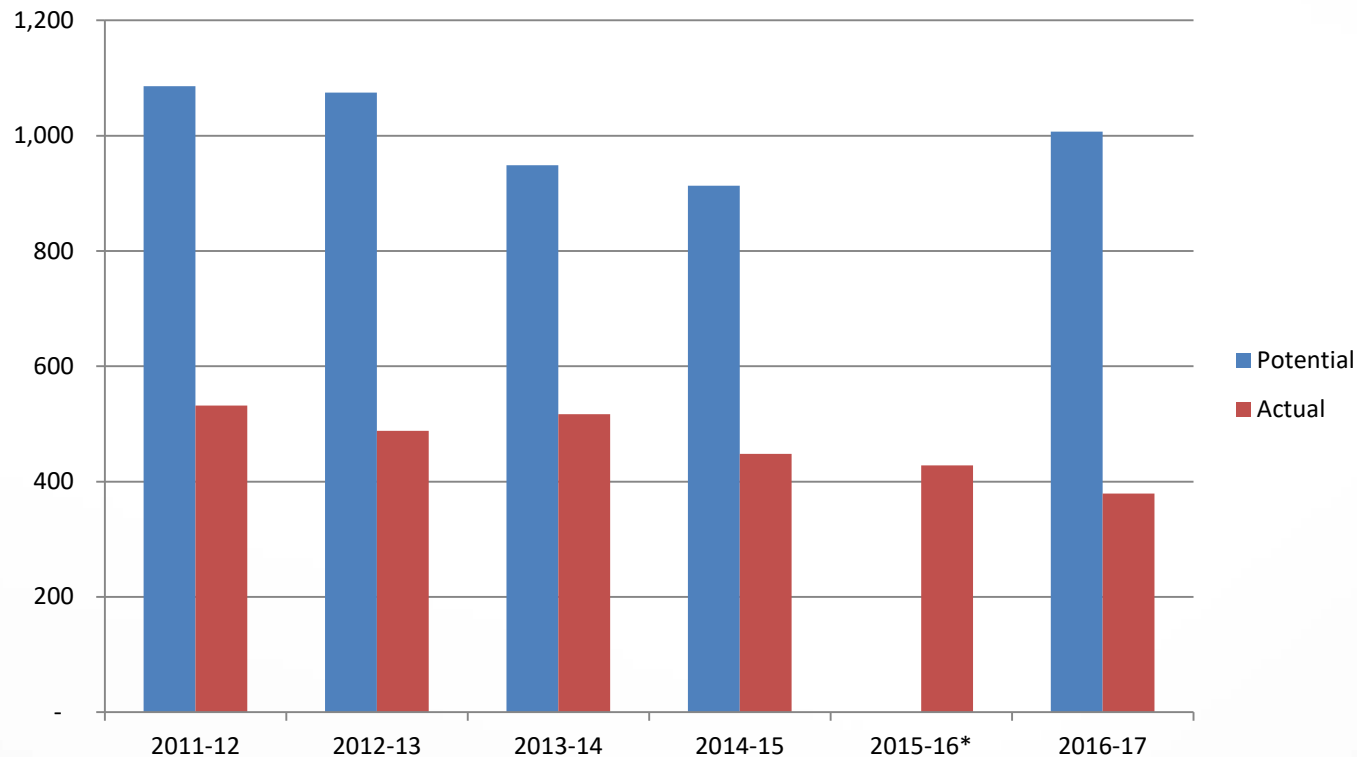


To maintain current student to teacher ratio averages, an additional **456 FTE** are needed in the next 5 years.

Estimated Projected Teacher Need	<i>FY2019</i>	<i>FY2020</i>	<i>FY2021</i>	<i>FY2022</i>	<i>FY2023</i>
Teachers to Maintain 14.0 Student to Teacher ratio	9,664.71	9,769.71	9,875.21	9,981.86	10,089.64

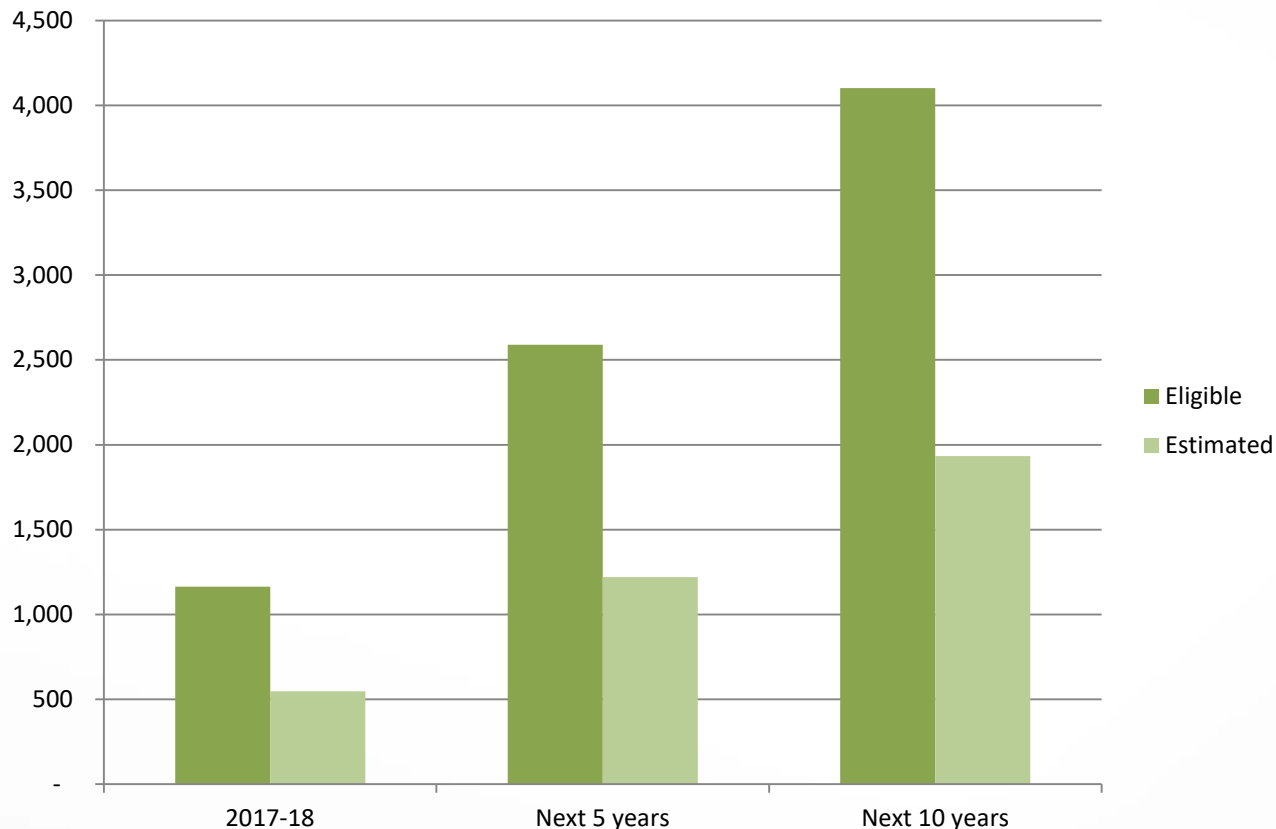
Need to replace retirees

South Dakota: Administrator, teacher, and education specialist retirements 2011-2016



47.1% of all eligible education retirees actually retire

South Dakota: One, Five and ten-year retirements eligible versus estimated



State data indicates that teachers comprised 71.8% of education retirees in the most recent year.

5 year estimate:
876 teachers retiring

Need to replace teachers leaving for other reasons

South Dakota: Reasons that K-12 teachers do not return to their position (Headcount)

Public School Districts	2014-15	2015-16	2016-17	2017-18
Employed in another school/district outside of state	83	110	86	62
Family/personal relocation	98	99	96	45
On Leave of Absence or Sabbatical	7	13	12	13
Other employment in education	119	72	75	79
Other employment outside of education	91	109	86	86
Reason Unknown	172	217	136	117
Retirement	293	261	236	178
Laid Off	5	2	11	10
Discharged	21	29	32	33
Employed in another accredited SD school/district	254	269	216	183
Illness	5	7	6	3
Death	7	2	3	7
Mentor	5	7	2	3
Employed by district in another capacity not tracked	8	25	19	13
TOTAL	1168	1223	1018	833

South Dakota: Reasons teachers do not return to prior position (2017/18 School Year)

	Teachers	Admin	Educ. Spec.
Death	5.37	0.00	1.00
Employed by District in another capacity not tracked	10.17	2.00	171.11
Employed in another accredited SD school/district.	174.88	13.60	21.41
Employed in another school/district out of state	60.00	1.13	4.59
Family/personal relocation	42.34	0.85	3.73
Illness	3.00	0.41	0.00
Non-Renewal	31.39	1.60	0.00
On Leave of Absence or Sabbatical	11.50	0.00	1.00
Other employment in education	72.02	6.24	11.17
Other employment outside of education	77.26	3.70	10.13
Mentor	3.00	0.00	0.00
Reason Unknown	108.42	3.00	12.13
Reduction-in-Force	8.80	0.00	1.40
Retirement	165.95	12.00	21.88
TOTAL	774.10	44.53	259.55
Percent of 2016-17 Staff	8%	8%	23%
Percent of Staff Leaving Education in SD	4%	3%	4%
Percent of Staff Still in SD Education Field but in Different Position	3%	4%	18%
Percent Unknown	1%	1%	1%

South Dakota: Estimated number of teachers leaving the field

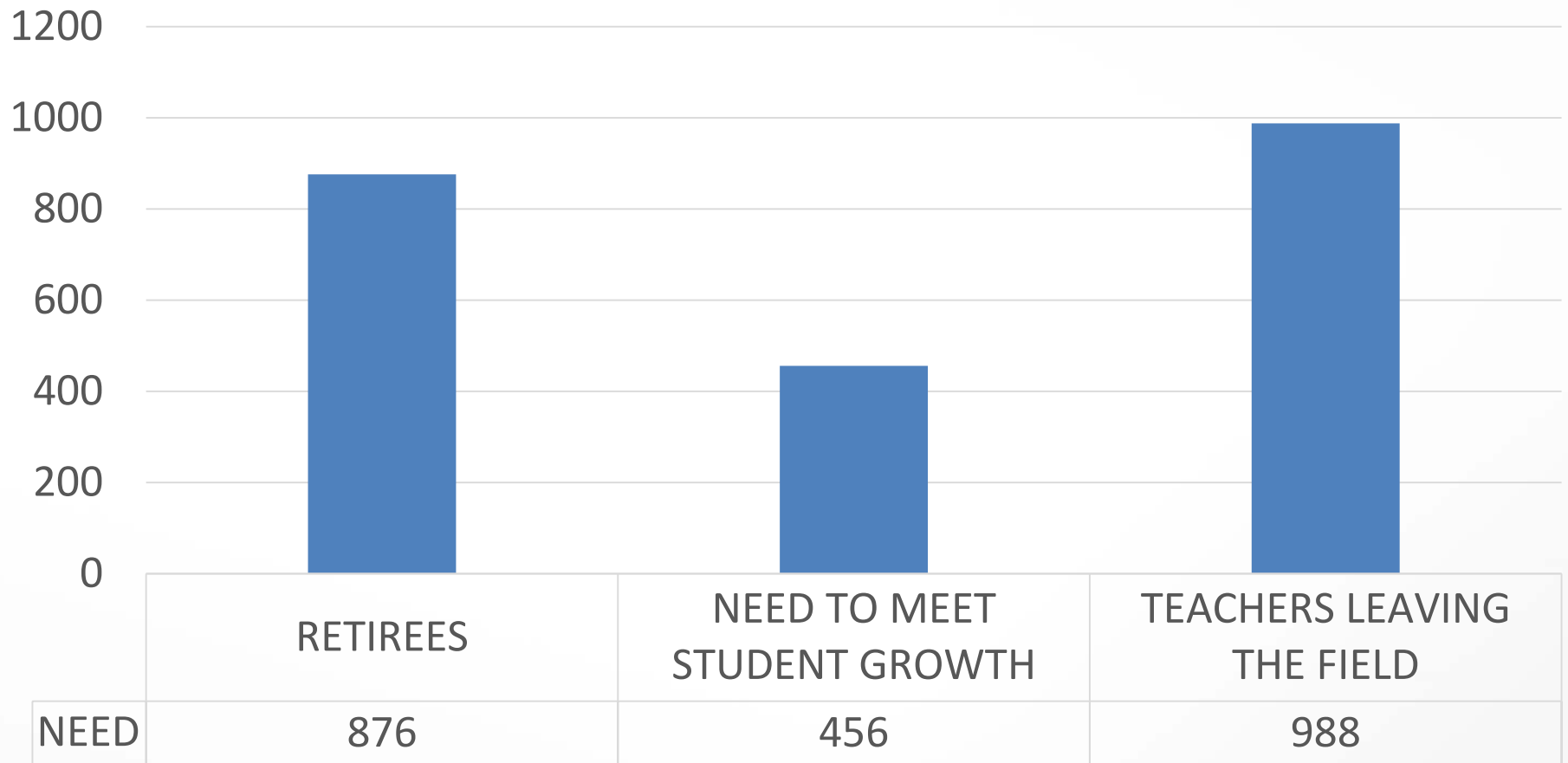
	Estimated number of Teachers	Estimated number No longer Employed
2018-19	9,665	193
2019-20	9,770	195
2020-21	9,875	198
2021-22	9,982	200
2022-23	10,090	202
Five Year Total		988

Estimates:

- 2% of teachers will continue to leave the field for reasons other than retirement
- In next 5 years: 988 teachers will leave the education field in SD

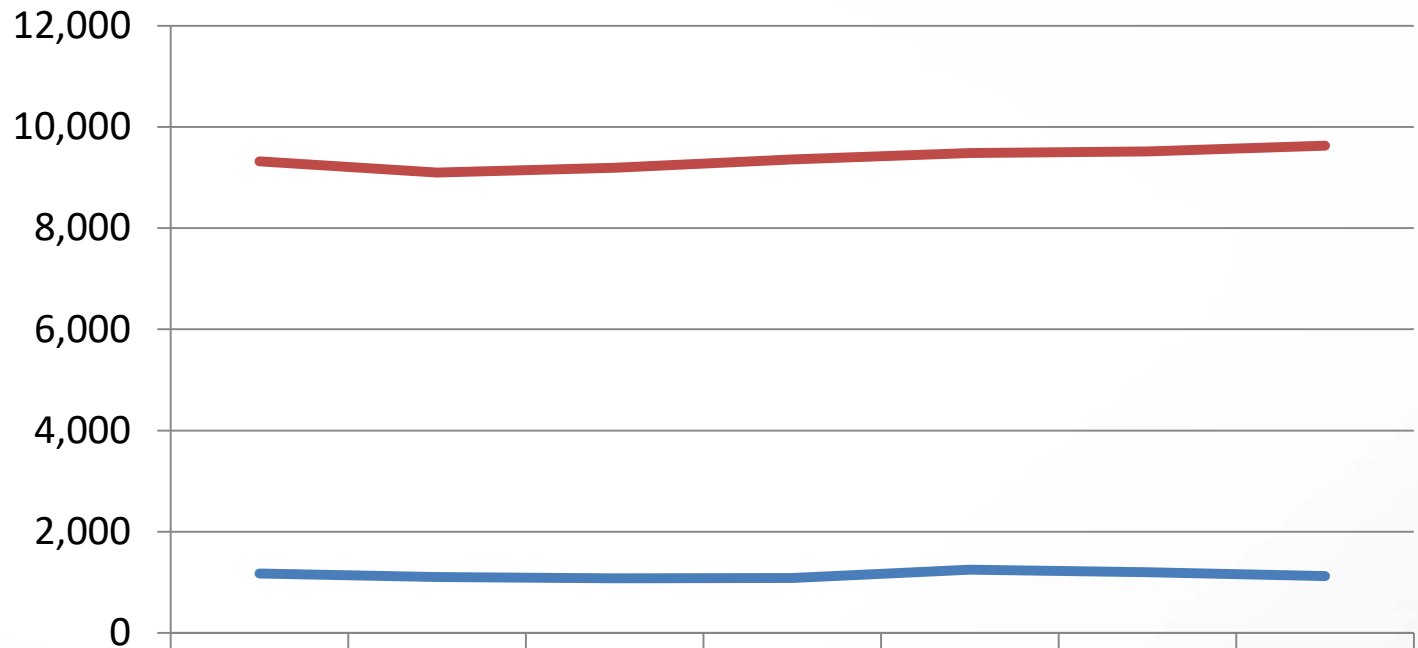
Putting it all together: 5 Year Projected Need



South Dakota: 5-year projected teacher need



South Dakota Teacher Pipeline

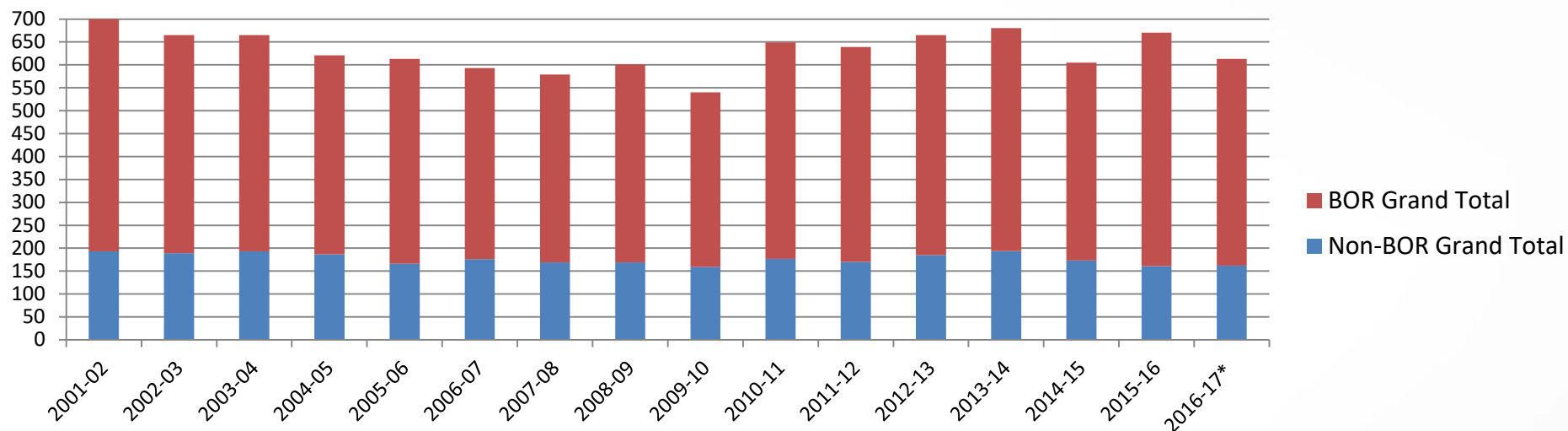
South Dakota: Total FTE of Certified Teachers and Total Number of New Certificates, last 5 years



	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
 New Certificates Issued	1,174	1,103	1,074	1,083	1,250	1,198	1,119
 FTE Certified Teachers PK-12	9,321	9,099	9,196	9,362	9,483	9515.89	9634.13

Pipeline: South Dakota College Graduates

South Dakota: Teacher preparation graduates 2002-03 to 2016-17



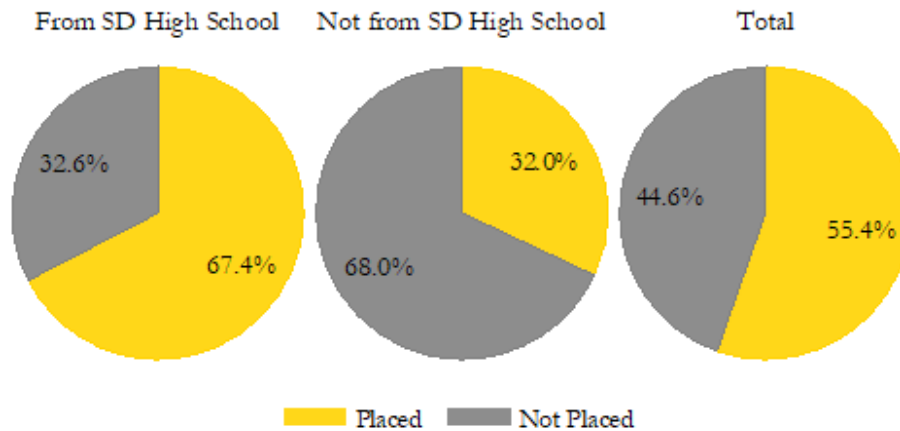
	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017*
Non-BOR Grand Total	193	189	193	187	166	176	169	169	159	177	170	185	194	173	161	162
BOR Grand Total	507	476	472	434	447	417	410	432	381	472	469	480	486	432	509	451
Combined Grand Total	700	665	665	621	613	593	579	601	540	649	639	665	680	605	670	613

BOR Teacher Graduate Placements

FY 2002-2016

Approximately half (55.4%) of all undergraduate teacher education graduates since FY2002 have been placed in an in-state school district

In-State Placement Rates by High School State of Teacher



In-State Placement Rates by Institution and High School State of Teacher (Percentages)

	From SD High School			Not from SD High School			Total		
	Placed	Not Placed	Total	Placed	Not Placed	Total	Placed	Not Placed	Total
BHSU	68.9	31.2	100.0	30.7	69.3	100.0	53.0	47.0	100.0
DSU	79.7	20.3	100.0	50.3	49.7	100.0	73.0	27.0	100.0
NSU	71.1	28.9	100.0	32.2	67.8	100.0	62.4	37.6	100.0
SDSU	55.7	44.3	100.0	25.4	74.6	100.0	45.7	54.3	100.0
USD	68.5	31.5	100.0	34.2	65.8	100.0	54.5	45.5	100.0
System	67.4	32.6	100.0	32.0	68.0	100.0	55.4	44.6	100.0
(#)	3,044	1,471	4,515	738	1,571	2,309	3,782	3,042	6,824

Placement rates are dramatically higher for teacher education candidates who attended a South Dakota high school

South Dakota: Trajectories for new teacher graduates, next 5 years

5 Years Estimated SD Teacher Graduates

	2016-17	2017-18	2018-19	2019-20	2020-21
Board of Regents Universities	162	174	174	174	174
Non-BOR Universities	451	458	458	459	460
TOTAL	613	632	632	633	634
Five Year Total				3,144	

Estimated SD Placements

	Projected Grads	Projected Placed in SD
2016-17	613	340
2017-18	632	350
2018-19	632	350
2019-20	633	351
2020-21	634	351
TOTAL	3,144	1,742

Per the most recently available long term data, 55.4% of all Board of Regents teacher education graduates were employed in South Dakota.

This means that we expect 1,742 of 3,144 grads to take jobs in SD in the next 5 years

Pipeline: Out of State College Graduates

South Dakota: Teachers from out-of-state 2010-2014

Certificates Issued to Out-of-State Graduates

	Certificates Issued	Employed in SD	Employed %	Administration Endorsement	Educator Specialist Endorsement	Teacher Endorsement
2010	440	268	60.91%	27	24	389
2011	414	247	59.66%	17	21	376
2012	466	283	60.73%	24	30	412
2013	490	320	65.31%	27	11	452
2014	435	265	60.92%	21	20	394
2015	416	192	46.15%	18	8	400
2016	370	178	48.11%	14	11	358
2017	299	130	43.48%	14	8	288

On average 55.66% of out of state educators who apply for certification in South Dakota will be employed in South Dakota public schools

5 year trajectory:

- 1,536 out-of-state applicants
- 855 employed in the SD public schools.

Pipeline: Alternative Certification

South Dakota: Alternative certificates

	Alternative Certificates	Teach For America	Total Alternative
2010-11	41	26	67
2011-12	37	17	54
2012-13	51	15	66
2013-14	48	23	71
2014-15	55	31	86
2015-16	86	29	115
2016-17	114	19	133
2017-18	188	20	208

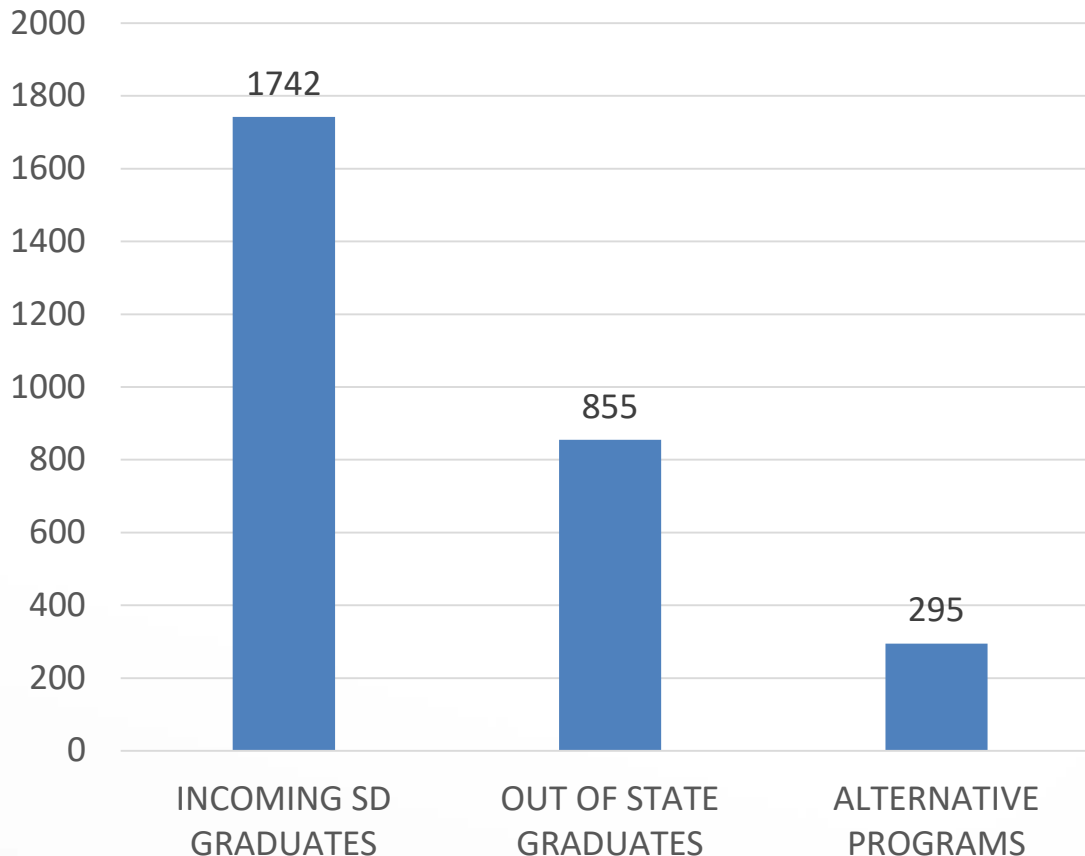
Expectations:

- The alternative Certification program will continue to grow, but will stabilize under the new rules.
- Teach For America will remain steady at an average 23 teachers a year
- 5 year conservative projection: 295
- new teachers

SOURCE: SD DOE Certification and Personnel Record Form databases

Putting it all together: 5-year teacher pipeline projections

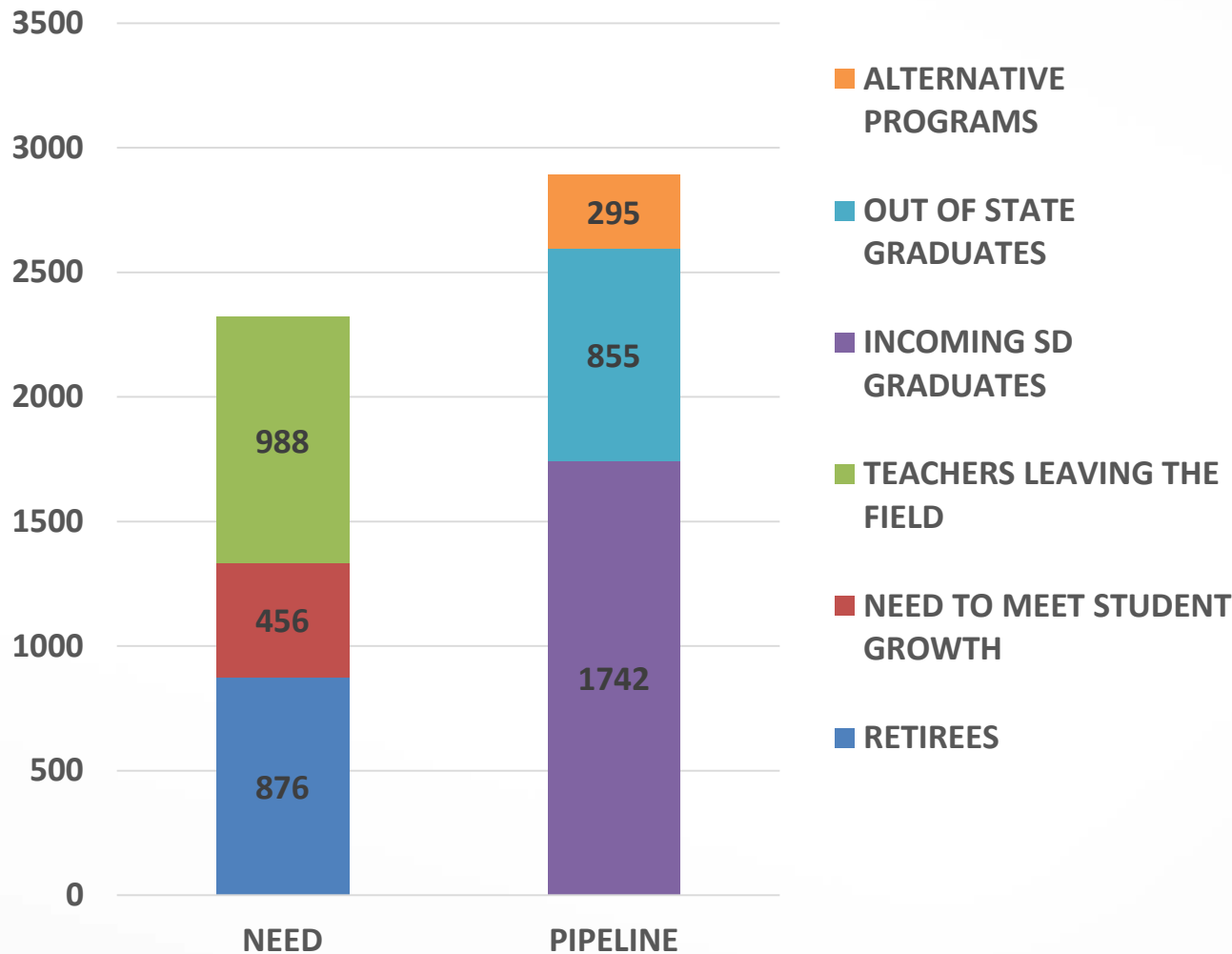
South Dakota: Five-year teacher pipeline projections



**Projected 5
Year new
teacher pool:
2,892**

Projected Totals

South Dakota: Pipeline Overview



The estimated supply of teachers indicates the potential teacher pool will be **572** **more** than the minimal five-year need.

Hard to Fill Positions

2018 Preliminary Plans of Intent

Educator Assignment	PLANS OF INTENT BY HEAD COUNT	Percent on Plan of Intent
Administrators	18	3%
Career and Technical Education	108	14%
English Language Learner	13	19%
Fine Arts	13	5%
Language Arts	64	4%
Math	41	3%
Military	0	0%
Miscellaneous	4	0%
Music	14	3%
Non-Credit	3	0%
PE-Health	35	6%
Religion	0	0%
Science	59	6%
Elementary	77	2%
Social Science	63	6%
Special Education	39	4%
World Language	16	9%
	567	3%

South Dakota: Unfilled Vacancies, First Day of School 2017-18

	FTE	Courses
Administrators	1	
Career and Technical Education	3.48	22
Education Specialists	12.11	14
English Learner/ ESL	1	1
Fine Arts	1.15	2
Language Arts	3.86	20
Math	3.73	22
Miscellaneous	2	8
Music	0.8	1
Non-Credit	5.46	24
PE-Health	0.19	2
Science	1.8	9
Elementary	13.46	15
Social Science	0.97	4
Special Education	12.52	13
World Language	0.24	2
Total FTE	63.77	161

- Includes ALL Public schools
- Represents teaching positions at 78 schools; 39 districts
- Administrator and School Service Specialists at 11 districts

South Dakota: High School vacancies by FTE first day of school, 2014-2015

	FTE	Percent of ALL FTE vacancies
Administrators	0.66	66.00%
Career and Technical Education	2.84	81.61%
Education Specialists	0.5	4.13%
Fine Arts	0.15	13.04%
Language Arts	2.44	63.21%
Math	2.22	59.52%
Miscellaneous	0.58	29.00%
Non-Credit	4.42	80.95%
PE-Health	0.06	31.58%
Science	1.53	85.00%
Social Science	0.5	51.55%
Special Education	4.52	36.10%
World Language	0.24	100.00%
TOTAL	20.66	32.40%

- Represents positions at 24 schools and districts (11.94% of HS)
- Math & Science: 8 high schools with at least 1 unfilled course (4.0% of HS)
- English: 3 high schools with at least 1 unfilled course (1.5% of HS)

Hard to Fill Positions

South Dakota: Hard to fill positions

Plans of Intent 2017-18

	PLANS OF INTENT (HEAD COUNT)	% OF CATEGORY
Administrators	18	3%
CTE	108	14%
ESL (Non-Core)	13	19%
Fine Arts	13	5%
Language Arts	64	4%
Math	41	3%
Military	0	0%
Miscellaneous	4	0%
Music	14	3%
Non-Credit	3	0%
PE-Health	35	6%
Science	59	6%
Elementary	77	2%
Social Science	63	6%
Special Ed (Non-Core)	39	4%
World Language	16	9%

- Includes all Public Schools in the state
- English as a Second Language, World Language, and CTE teachers were the most likely to be on Plans of Intent
- Highest numbers of Plans of intent in Elementary, CTE, Language Arts, & Social Science

South Dakota: Plan of Intent Trends

	2015	2016	2017
# Plans of Intent	576	726	676
Not Completed	N/A	538	520
Completed	N/A	188	156
Headcount	501	596	563

SOURCE: SD DOE Personnel Record Form database

- One teacher may be on multiple plans of intent to teach multiple courses
- Both the number of teachers and the number of plans of intent has been growing
- Plans of Intent are issued for up to 2 years in most cases
- Educators have completed 24.49% of Plans of Intent in recent years on average. This is down from pre-2015 percentages

South Dakota: Hard to fill position resolution of Unfilled Vacancies 2014-15 (October 15)

	# of Courses	% of Vacancies
Eliminate Course/Program	27	16.77%
Additional duties given to other staff	38	23.60%
Hired certified candidate after school started	8	4.97%
Increased Class size	16	9.94%
Position remains vacant	31	19.25%
Use Distance Learning	14	8.70%
Other	27	16.77%
Total (including Administrators and School Service Specialists)	161	

- Most common resolution was to re-assign duties to other staff
- Vacant courses is down from 2015

Hard to Fill Positions: Flexible Course Offerings

South Dakota: Flexible Learning Options

South Dakota Virtual School Courses

	Districts		Courses		Total Student Enrollments
	Public	Other	Available	Offered	
2010-11	118		233		3446
2011-12	127		255		3389
2012-13	133		289		3750
2013-14	135		298		3837
2014-15	133	16	389		3952
2015-16	126	15		209	4078
2016-17	133	13		275	4005

SOURCE: SD Virtual School annual reports

- Represents officially reported public school enrollments
- 16.22% increase in student enrollments since 2010-11

South Dakota: Flexible Learning Options

South Dakota Virtual School Courses

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
CTE	276	283	316	401	400	365	284
Credit Recovery	842	942	946	727	627	559	609
College Readiness			115	169	128	115	90
Fine Arts	188	114	127	132	132	107	59
Health/PE	105	60	43	66	55	151	123
ELA	320	299	351	297	255	411	287
Math	340	194	246	286	334	653	344
Sciences	280	334	396	413	524	403	310
Social Sciences	798	137	165	190	285	311	200
World Language		1008	1015	1098	1061	808	698
Personal Finance/Econ		1	7	40	44	66	45
Technology		14	10	9	9	3	7
Elementary					84	89	17
Other	38	3	13	9	14	37	0

- Over time, offerings in more subjects have been added
- Credit Recovery and World Languages have the highest enrollments

South Dakota: Flexible Learning Options

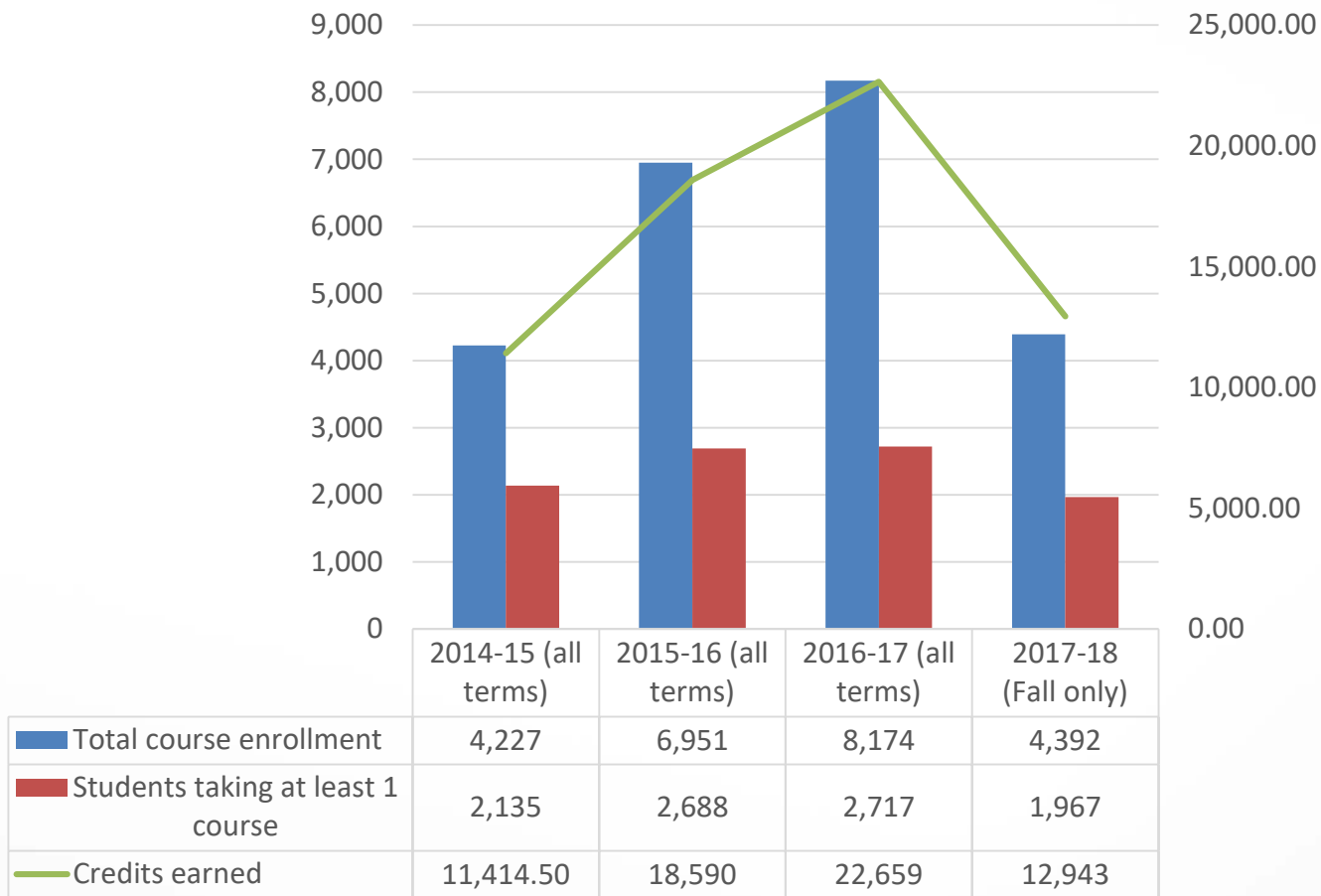
South Dakota Virtual School Courses

	2014-15		2015-16		2016-17	
	Enrolled	Completion Rate	Enrolled	Completion Rate	Enrolled	Completion Rate
CTE	400	68.8%	365	96.7%	284	95.4%
Credit Recovery	627	21.7%	559	24.3%	609	23.2%
College Readiness	128	63.3%	115	46.1%	90	90.0%
Fine Arts	132	70.5%	107	76.6%	59	78.0%
Health/PE	555	61.8%	151	48.3%	123	54.5%
ELA	255	41.6%	411	49.6%	287	53.0%
Math	334	45.8%	653	58.3%	344	55.2%
Sciences	524	52.3%	403	80.6%	310	86.8%
Social Sciences	285	42.8%	311	70.1%	200	71.0%
World Language	1061	52.3%	808	78.3%	698	80.7%
Personal Finance/Econ	44	79.6%	66	77.3%	45	77.8%
Technology	9	55.6%	3	100.0%	7	85.7%
Elementary	84	52.4%	89	47.2%	17	64.7%
Other	14	71.4%	37	78.4%	0	

- Credit Recovery courses had the lowest completion rates across the board, and account for a significant portion of enrollments
- Completion rates have increased over time
- Overall completion rate without Credit Recovery courses included jumps from 64.24% to 74.39%

South Dakota: Flexible Learning Options

Dual Credit Courses



- Total enrollments increased by 93.37% and Credits earned by 98.51% between 2014 and 2016

South Dakota: Flexible Learning Options

Dual Credit Courses by Institution

	2014-15 (all terms)	2015-16 (all terms)	2016-17 (all terms)	2017-18 (Fall only)
Black Hills State University	50	52	70	45
Dakota State University	19	23	24	17
Lake Area Technical Institute	51	64	65	60
Mitchell Technical Institute	24	58	55	37
Northern State University	30	46	43	33
South Dakota School of Mines and Technology	23	26	35	15
South Dakota State University	52	60	59	47
Southeast Technical Institute	51	63	54	42
University of South Dakota	37	54	63	39
Western Dakota Tech	35	71	84	31
	372	517	552	366

Questions?

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