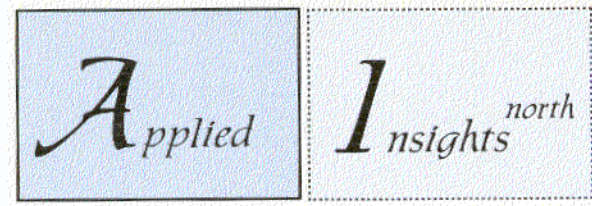


Spearfish Schools Student Enrollment Projection to 2029/30

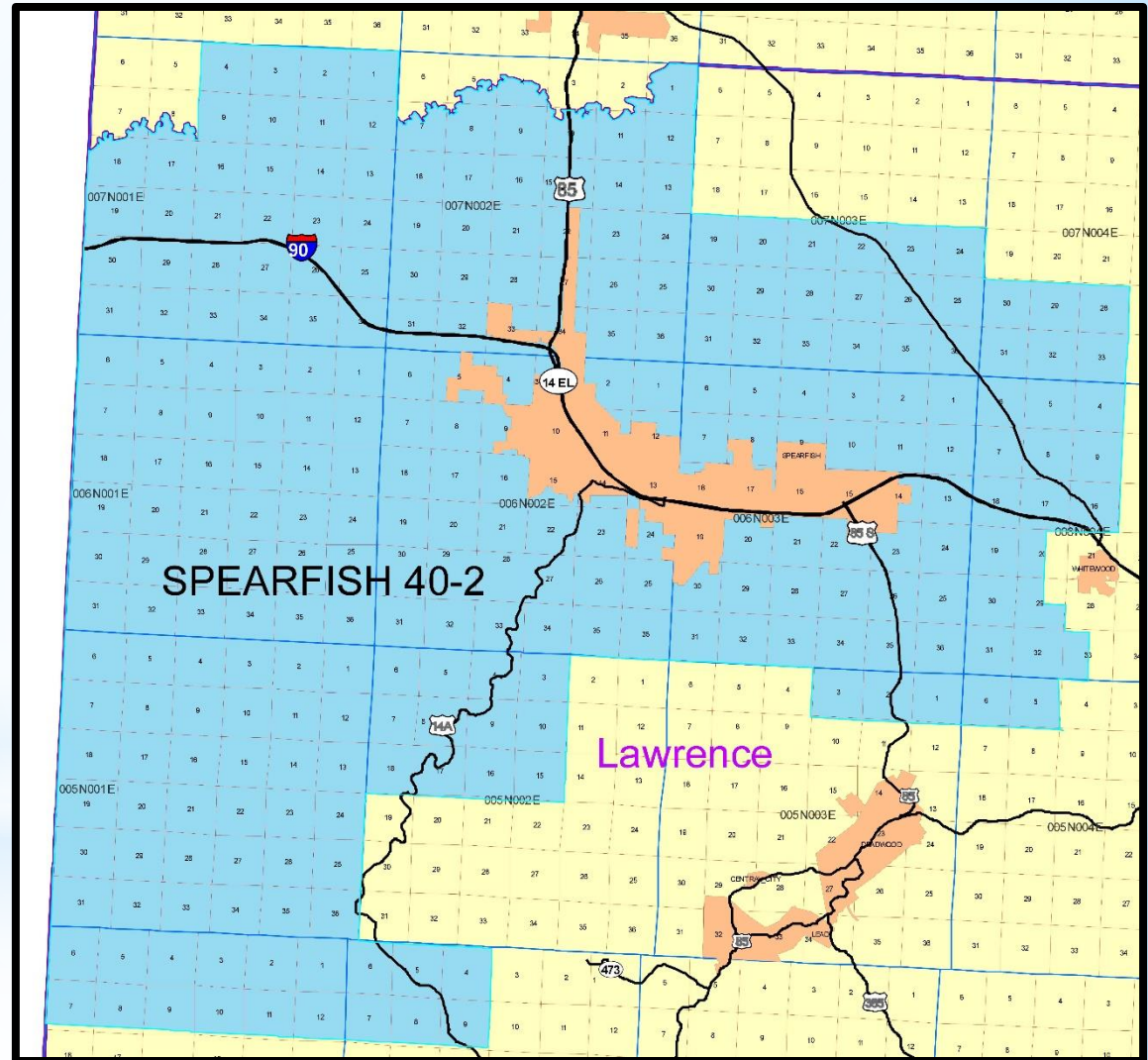


The Overview

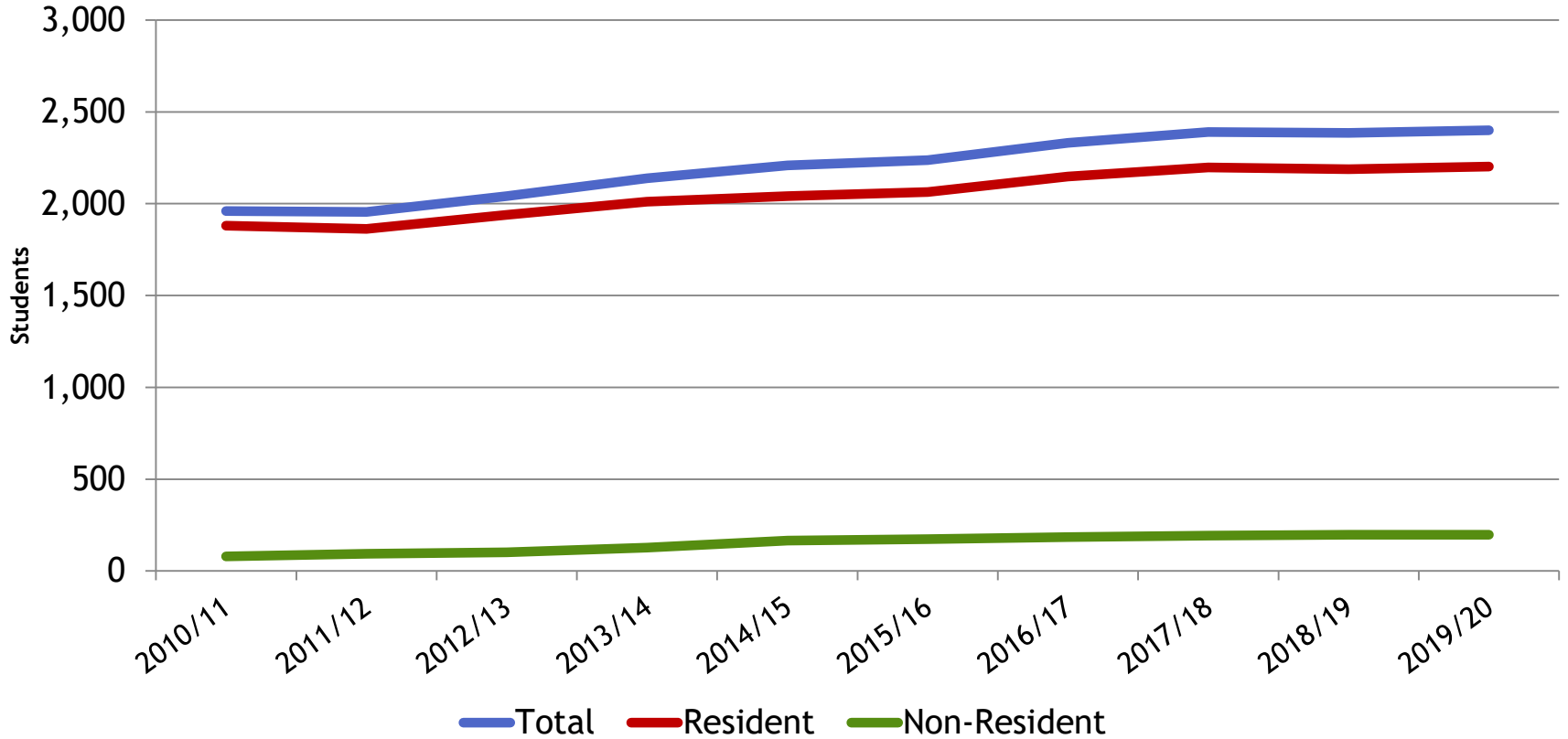
- Over the past 10 years Spearfish's K-12 enrollment has risen 22%.
- The number of K-12 students living within the district, regardless of which district they attend, increased 14%. Most resident students choose to attend Spearfish (93%).
- Most students attending Spearfish are residents but the level of non-resident students has risen from 4% to 8% of total enrollment.
- The district gains students through open enrollment exchanges with neighboring districts and the level of gain has tripled over the past decade. Increasing number of students are coming from Belle Fourche and Meade County.
- Spearfish centers a vibrant and growing regional economy. Affordable housing remains an issue but recent and proposed projects are addressing this need. The local economy and area's population are expected to continue growing.
- **K-12 enrollment is expected to rise slightly and then gently ease back with an overall gain of just 0.1%.**

Factors Considered in Projection

- Pattern of student enrollment change within the district.
- Trends in adjacent districts including open enrollment exchanges.
- Economic activity and population change and development pattern for the area.
- Patterns of births relative to district kindergarten enrollment including projected births.



Spearfish K-12 Enrollment, 2010/11 - 2019/20



Avg. Size	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
K – 5	153	157	163	175	182	183	189	188	180	173
6 – 8	140	139	151	160	163	168	182	199	201	210
9 - 12	155	150	154	152	157	159	164	167	176	182

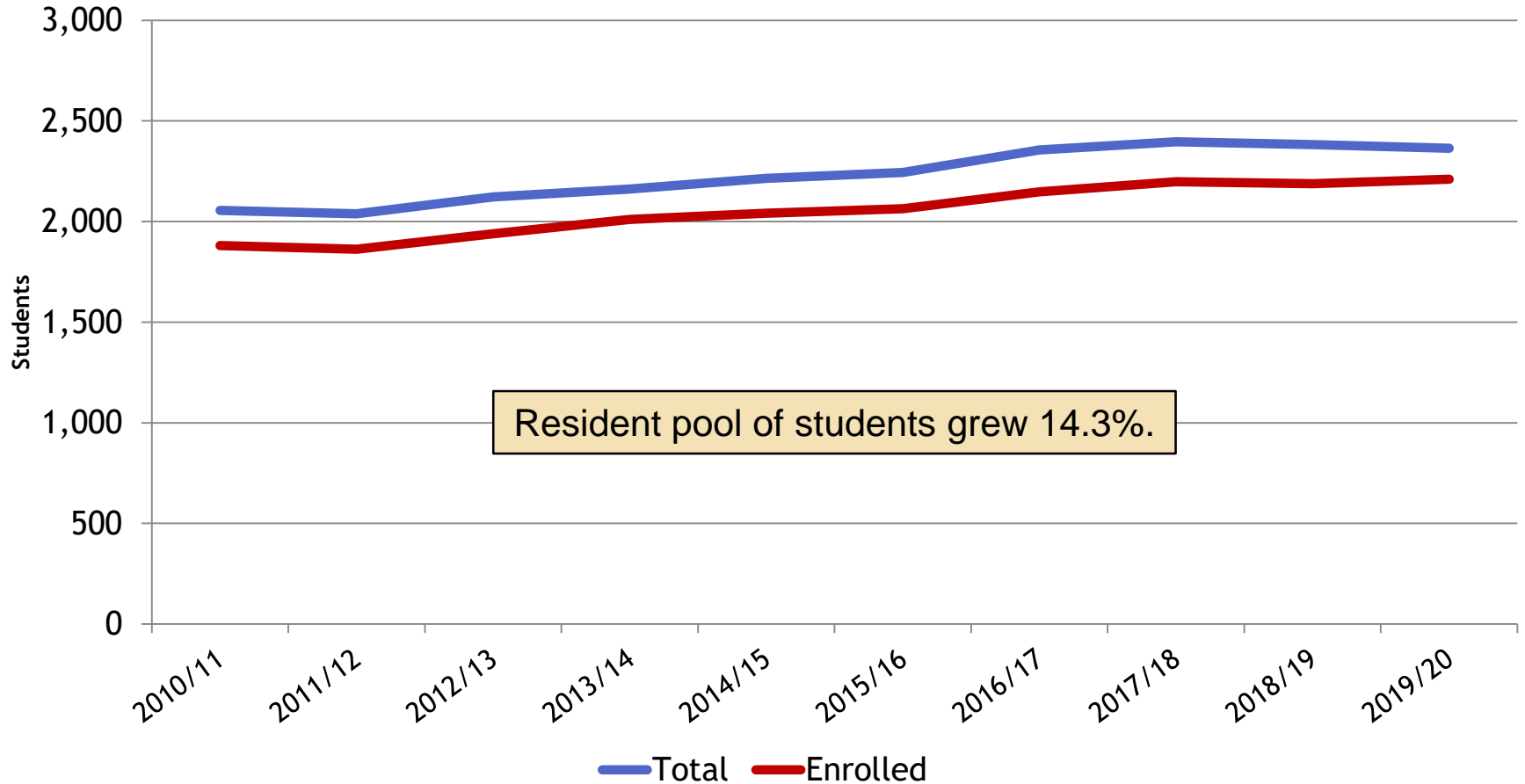
Source: SDDE, district.

Spearfish Enrollment, 2010/11 – 2019/20

Grade	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
K	163	155	173	186	163	177	186	149	154	153
1	177	167	162	188	200	175	177	184	159	153
2	145	177	167	171	191	198	176	181	183	158
3	147	138	176	175	172	199	199	188	183	191
4	154	146	143	181	182	168	213	211	185	193
5	134	156	155	149	183	180	180	214	215	188
6	120	134	171	153	143	189	196	186	226	209
7	159	131	143	182	166	146	198	202	186	231
8	140	152	138	146	179	170	151	208	191	189
9	186	142	160	137	160	179	179	160	206	199
10	135	178	143	155	150	162	175	182	157	204
11	143	131	170	143	161	136	157	167	170	151
12	157	148	141	173	158	159	145	158	171	175
Total K-12	1,960	1,955	2,042	2,139	2,208	2,238	2,332	2,390	2,386	2,394
K – 5	920	939	976	1,050	1,091	1,097	1,131	1,127	1,079	1,036
6 – 8	419	417	452	481	488	505	545	596	603	629
9 – 12	621	599	614	608	629	636	656	667	704	729

Source: SDDE, district.

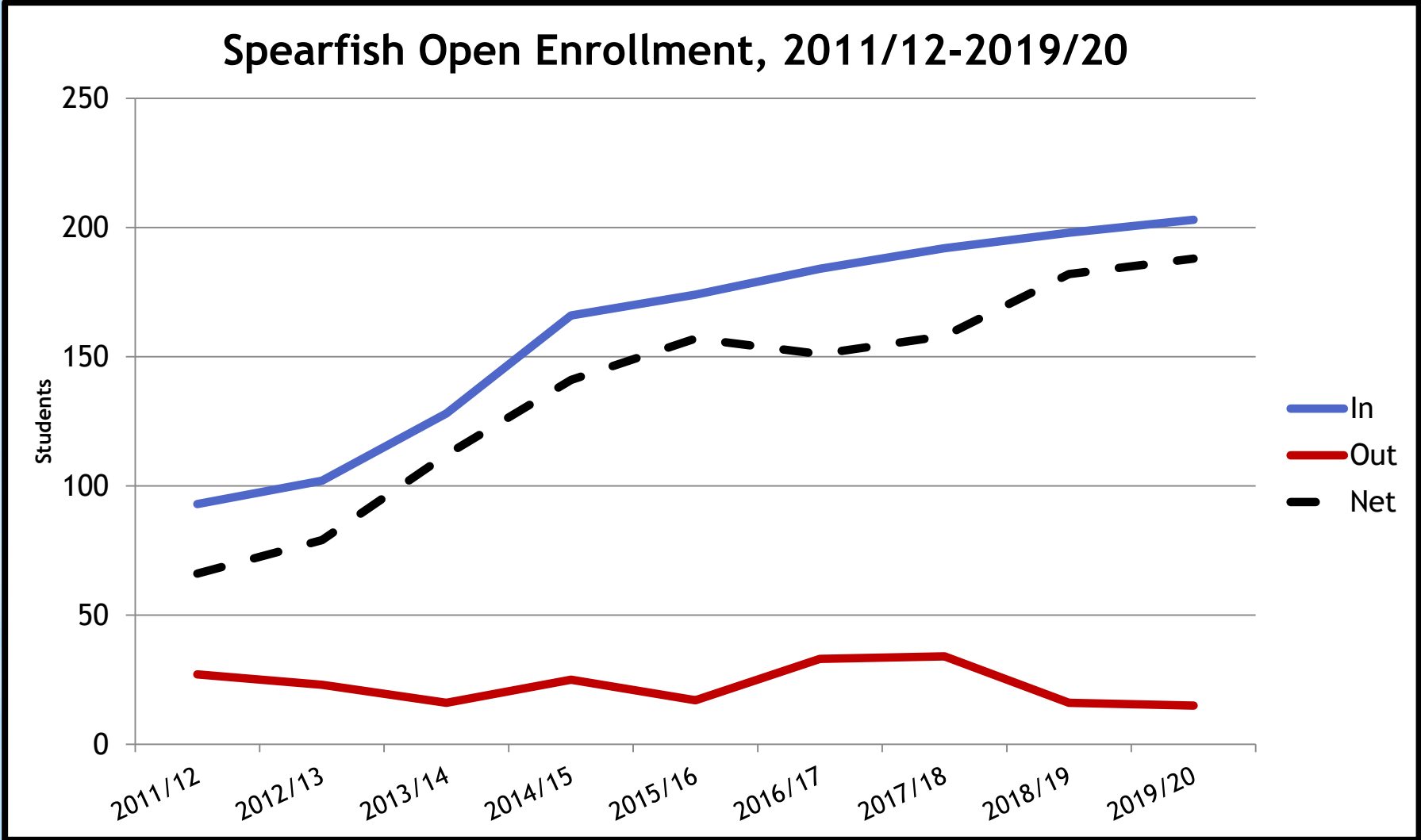
Spearfish K-12 Resident Student Trends



Residents	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Total Pool	2,056	2,039	2,122	2,162	2,215	2,244	2,356	2,397	2,382	2,351
Enrolled	1,881	1,862	1,940	2,011	2,042	2,064	2,148	2,198	2,188	2,197

Source: SDDE, district, Applied Insights North.

Open Enrollment



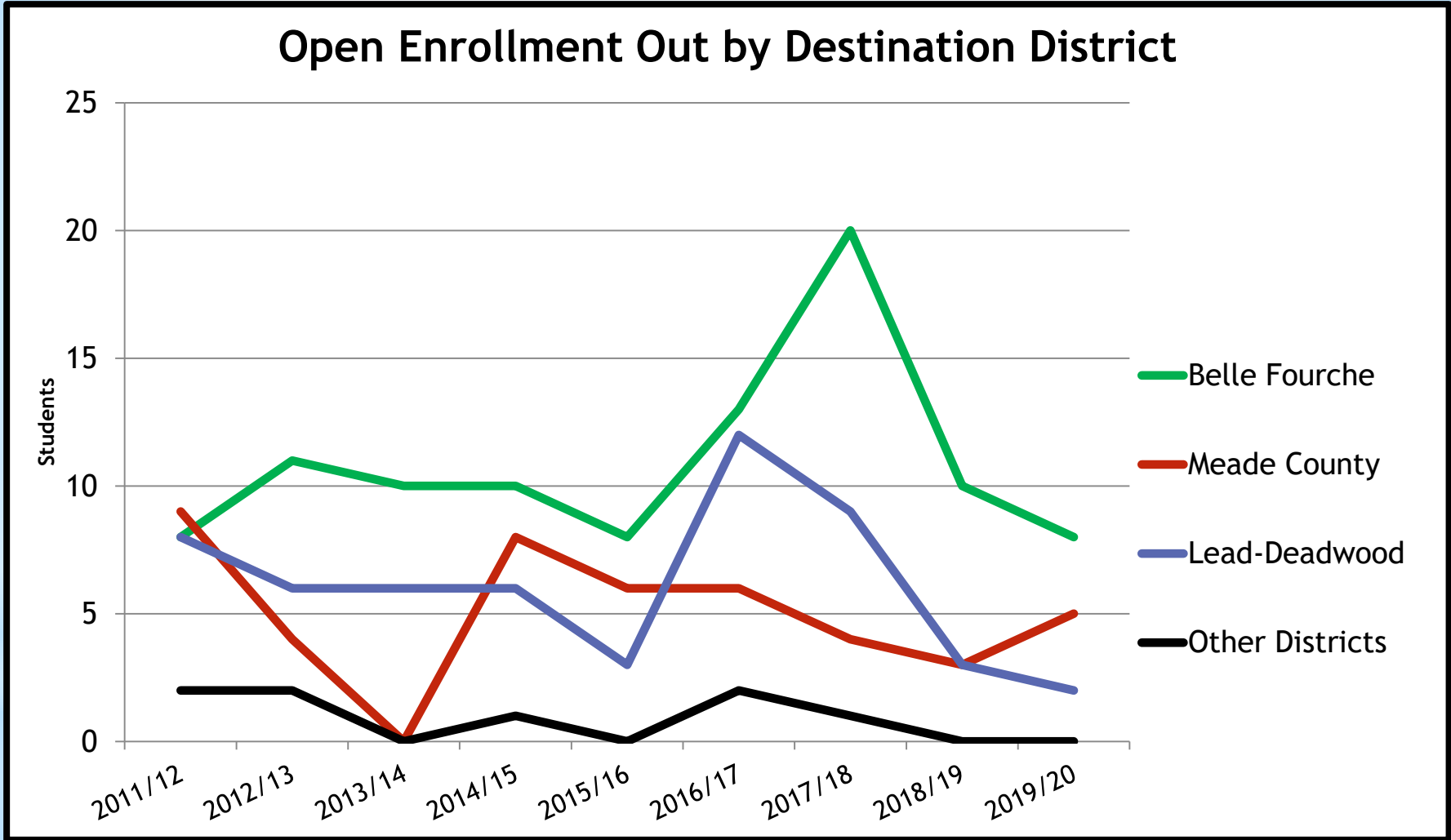
Source: SDDE, district.

Open Enrollment

	2017/18		2018/19		2019/20	
	In	Out	In	Out	In	Out
Belle Fourche	96	20	105	10	113	8
Meade County	71	4	71	3	68	5
Lead-Deadwood	23	9	20	3	19	2
All Other Districts	2	1	2	0	3	0
Total	192	34	198	16	203	15
Net Exchange		158		182		188

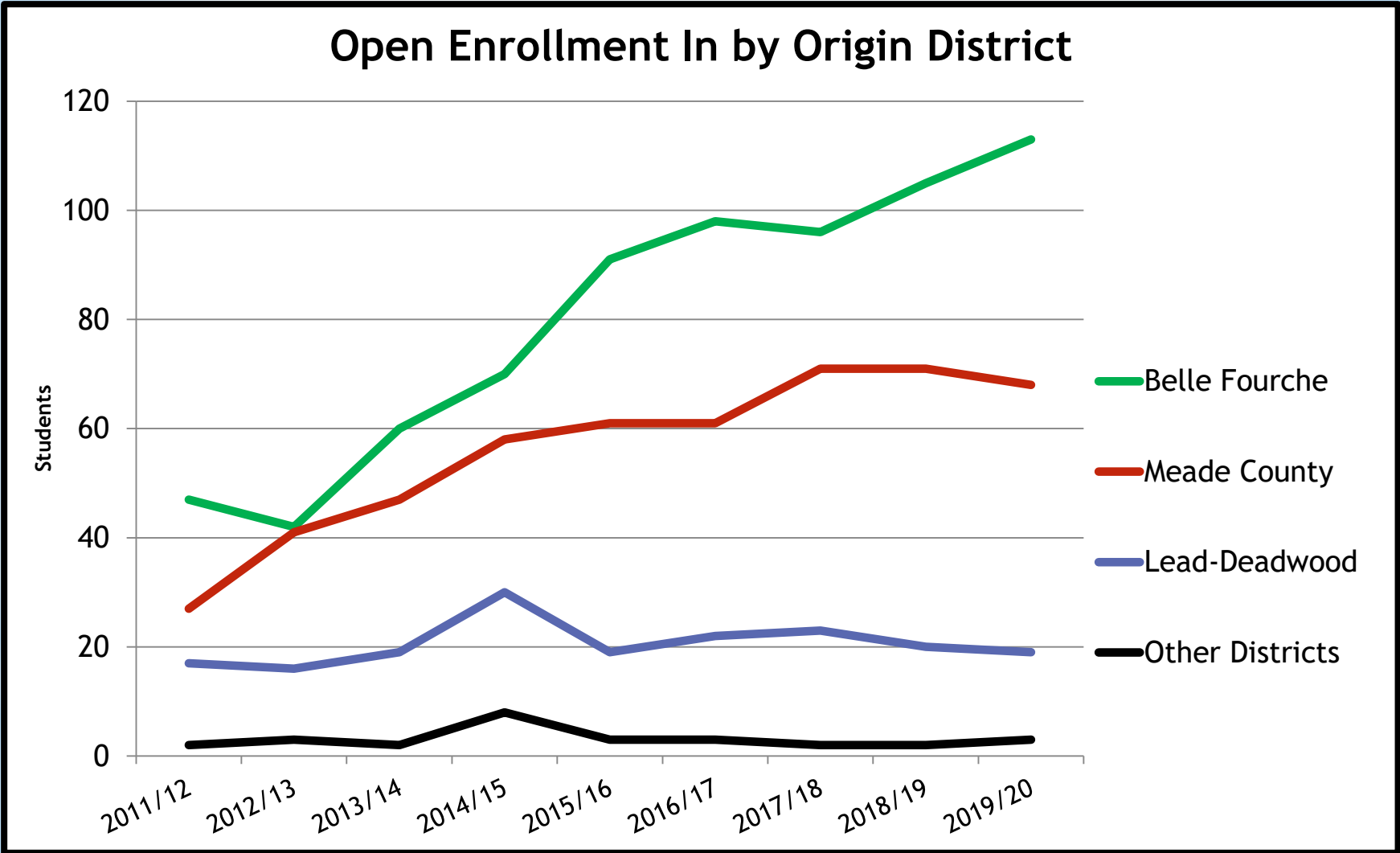
Open Enrollment Summary									
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
In	93	102	128	166	174	184	192	198	203
Out	27	23	16	25	17	33	34	16	15
Net	66	79	112	141	157	151	158	182	188

Open Enrollment



Source: MDE, district.

Open Enrollment



Grade Progression Ratios

Resident Students

Average Grade Progression Ratios for 2010/11 to 2019/20 by Three-Year Groups

Grade Shift	All Years	First 3	Mid 3	Last 3	Projection
K > 1	1.03	1.07	1.04	1.01	1.03
1 > 2	1.00	1.02	0.99	1.00	1.00
2 > 3	1.02	1.01	1.03	1.03	1.03
3 > 4	1.01	1.01	1.02	1.02	1.02
4 > 5	1.01	1.05	1.01	1.00	1.00
5 > 6	1.02	1.04	1.02	1.03	1.03
6 > 7	1.04	1.04	1.04	1.01	1.01
7 > 8	1.01	1.02	1.01	1.01	1.01
8 > 9	1.01	0.99	1.00	1.02	1.02
9 > 10	0.99	0.99	1.01	0.99	0.99
10 > 11	0.97	0.96	0.97	0.96	0.96
11 > 12	1.05	1.06	1.06	1.02	1.02

These ratios indicate the number of students who move from one grade level to the next. A number less than 1.0 means fewer students moved from one grade level to the next and a number greater than 1.0 means additional students joined the class from one year to the next.

The projection uses the averages of the past three years. They support a pattern of continued modest growth.

Grade Progression Ratios

Non-Resident Students

Average Grade Progression Ratios for 2010/11 to 2019/20 by Three-Year Groups

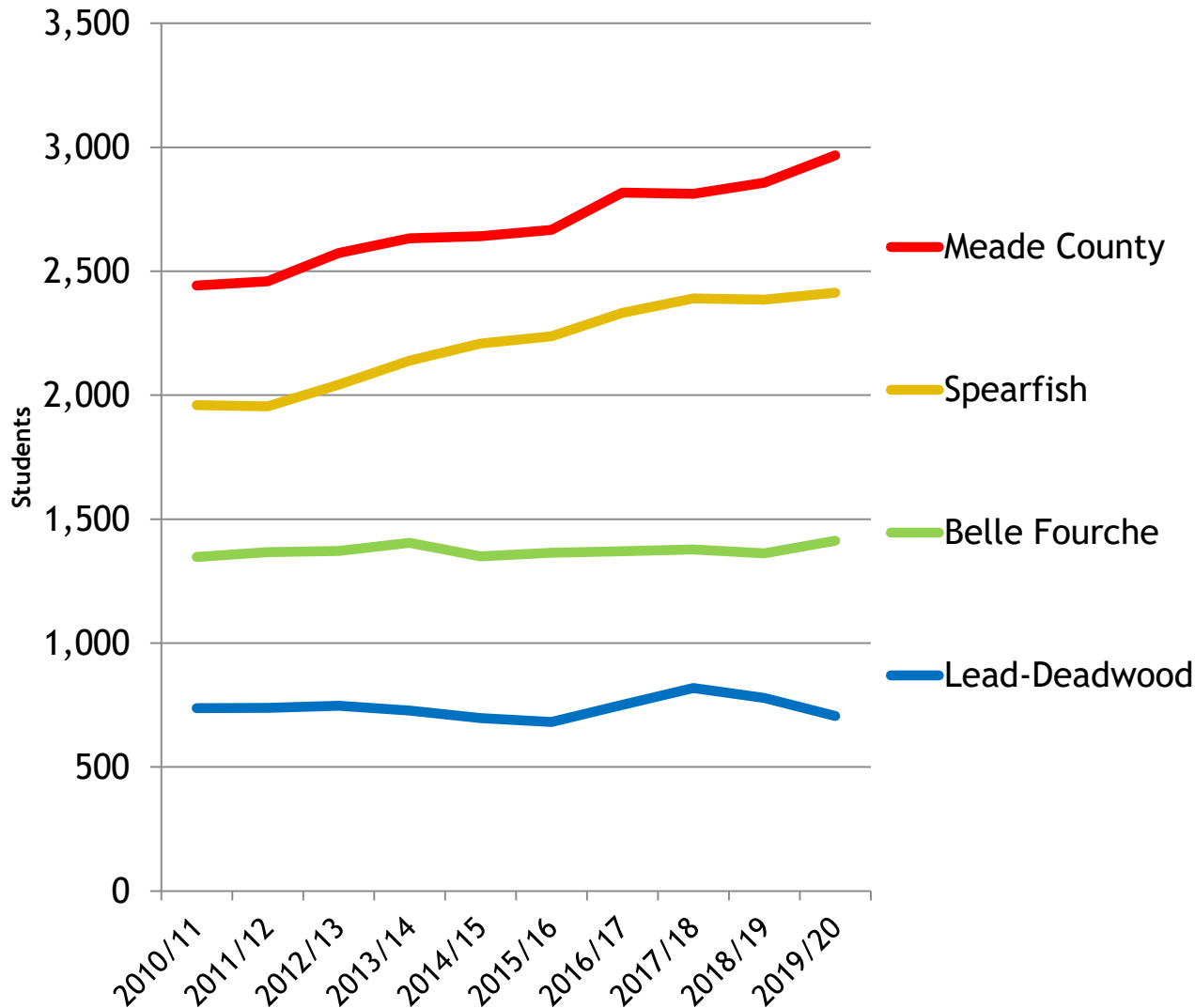
Grade Shift	All Years	First 3	Mid 3	Last 3	Projection
K > 1	1.18	1.24	1.14	1.12	1.12
1 > 2	1.29	1.34	1.39	1.10	1.10
2 > 3	1.09	1.08	0.92	1.23	1.08
3 > 4	1.26	1.35	1.16	1.24	1.16
4 > 5	1.23	1.30	1.22	1.18	1.18
5 > 6	1.09	1.15	1.22	0.91	1.00
6 > 7	1.27	1.31	1.29	1.17	1.17
7 > 8	1.33	1.96	1.08	0.96	0.96
8 > 9	1.47	1.58	1.68	1.16	1.16
9 > 10	1.05	0.90	1.22	1.05	1.05
10 > 11	1.11	1.46	0.96	0.89	0.89
11 > 12	1.01	1.02	0.93	1.05	1.05

These ratios indicate the number of students who move from one grade level to the next. A number less than 1.0 means fewer students moved from one grade level to the next and a number greater than 1.0 means additional students joined the class from one year to the next.

The projection sets most ratios to the averages of the past three years. Several lower grade ratios have been reduced to dampen gains. Overall, Spearfish is expected to gain students as adjacent districts grow.

Context: Area Schools

K-12 Enrollment for Adjoining Districts, 2010/11- 2019/20



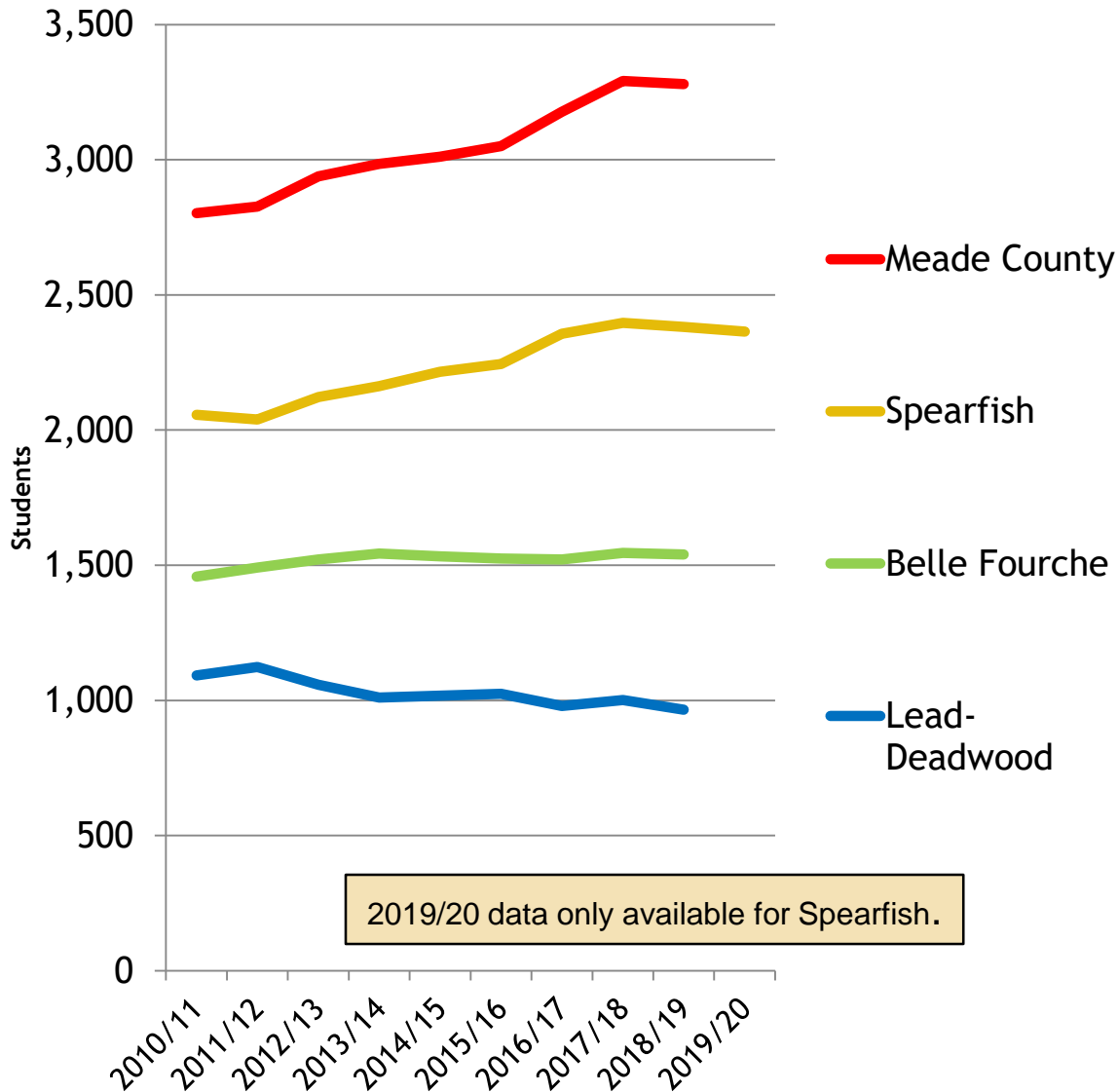
Spearfish enrollment has grown steadily and gained the most of area districts - 22.4%

Meade County rose 21.5%.

Belle Fourche rose, fell, and then began another rise. For the period it grew 4.8%.

Lead-Deadwood rose after a slow decline but has tailed off again. Overall it is down 4.2%.

Resident K-12 Students Regardless of District Attending, 2010/11- 2019/20



Context: Area Schools

Resident Student Base

This chart shows the number of resident students living within each district regardless of where they actually were enrolled. This removes the distortion caused by open enrollment and shows each district's "pool" of students.

Lead-Deadwood has steadily declined. Overall it is down 11.6%.

Belle Fourche has risen 5.6%.

Meade County has steadily grown over the period and is up 17.0%.

Spearfish grew through 2017/18 after which it has dropped slightly. Overall it is up 14.3%.

Analyze 2000-2010 trends:
Changes in age groups
Births per year

Add in estimates & projections

**Future:
Estimating
Births and
Kindergarteners**

Key factor is women age 15-44

Evaluate optional
fertility rates

Sources: US Census
State projections
State Department of Health.

Population Review

	Census		Est.	Projections	
	2000	2010	2018	2020	2025
Lawrence County	21,805	24,097	25,741	25,780	26,459
Spearfish	8,606	10,494	11,688	11,650	

Spearfish has experienced solid, continued growth of 2% per year.

Lawrence County has grown faster than earlier projected.

Spearfish has also exceeded anticipated growth.

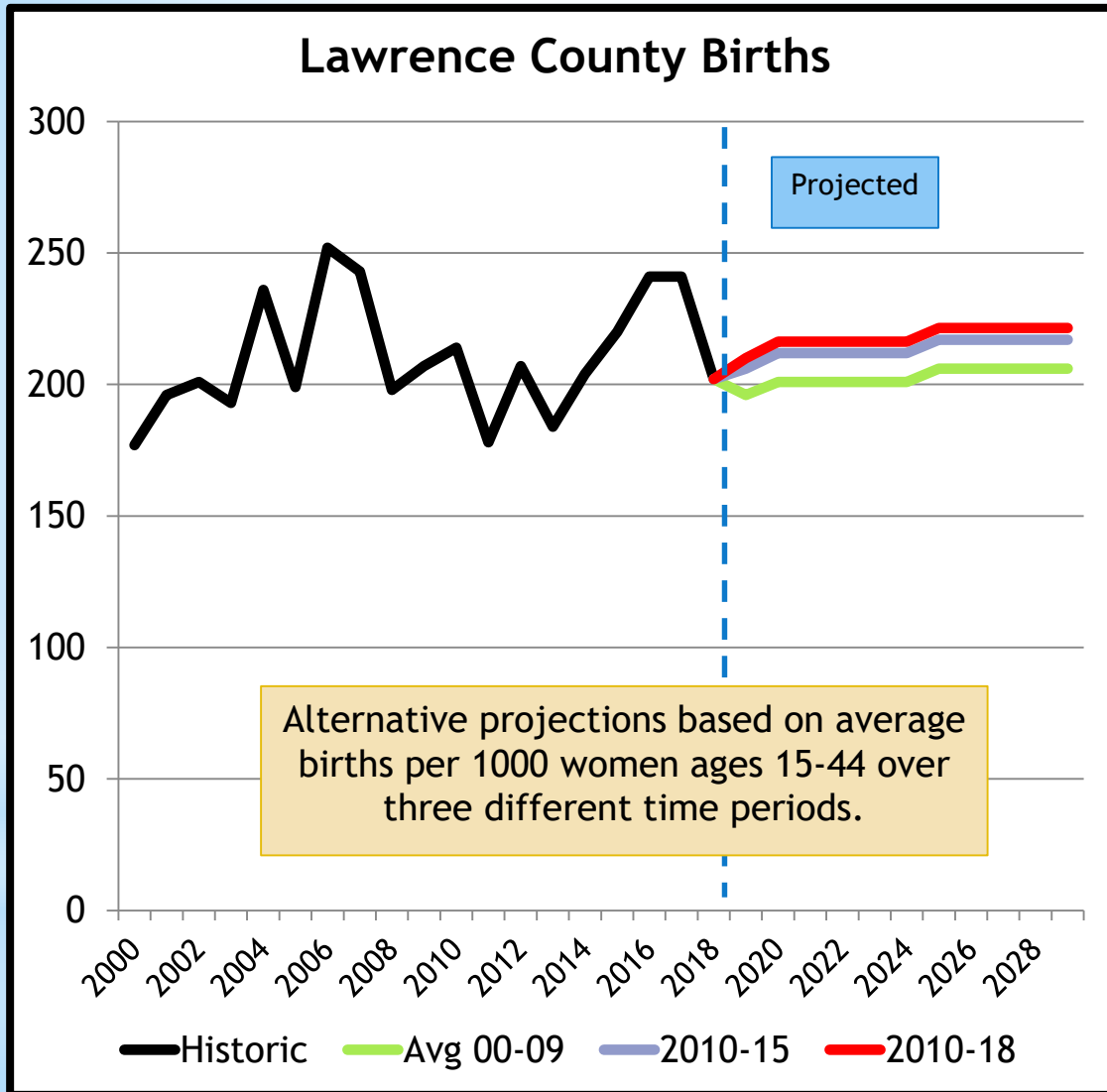
US Census analysis shows most county growth is due to net gain via in migration of new residents.

Current retail trade area study shows: area growing nearly 6% from 2018 to 2023; anticipated increases in 0-4, 5-14 age groups; also, 25-44 age group grew 20% from 2010 to 2018 and is expected to growth nearly 18% by 2023.

Area Development Overview

- Spearfish's solid growth reflects awareness of it as an attractive place to live and work.
- While not a heavy industry center, Spearfish is a vibrant commercial center serving a wide, multi-state region.
- Light industries provide solid employment and add diversity to the economy.
- Black Hills State University and Regional Health serve a wide area and attract a mix of people to the community.
- Sanford Underground Research Facility will generate hundreds of construction jobs over a 8-10 year period and then support ongoing employment and potential spin-off business creation as the various research projects are undertaken.
- Past city efforts have provided substantial amount of affordable workforce housing. Additional initiatives are planned.

Estimating Future Births and Kindergarteners



A key step in estimating future kindergarten classes is understanding trends in births to residents.

Births for Lawrence County were used for analysis as only a small portion of the district is within Butte County.

Three alternative birth projections were generated based on average birth rates over different time periods. The enrollment projection uses the highest of these as it reflects anticipated growth pattern of area.

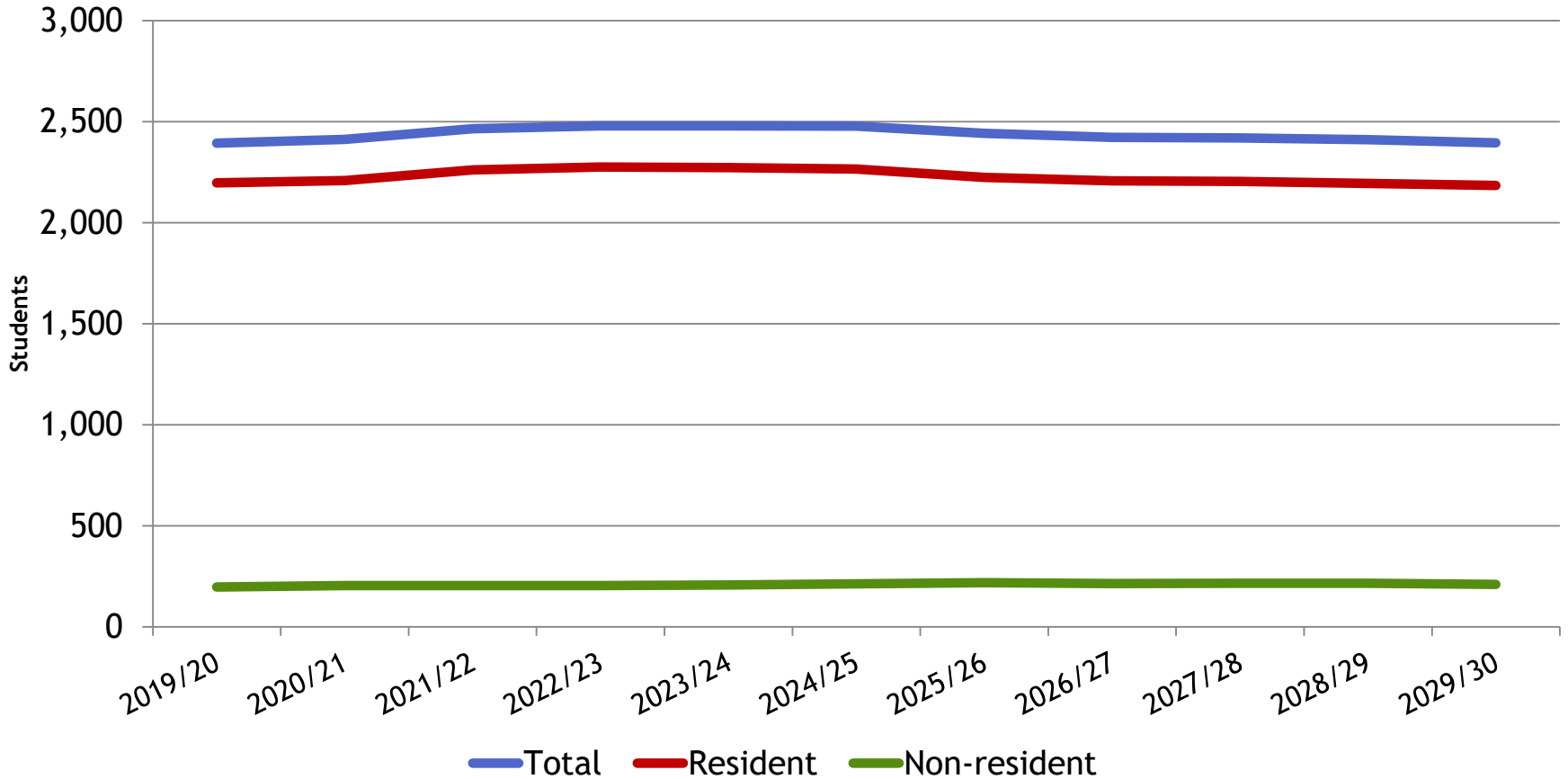
Assumptions for Projection

- No change in school district boundary or relationships with other districts.
- Open enrollment dynamics continue with minimal losses and significant gains especially from Belle Fourche and Meade County.
- Incoming kindergarten classes reflect county birth levels that should average just above those of the past two decades.

Spearfish K-12 Enrollment Projection to 2029/30

Grade	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
K	153	165	179	183	165	158	164	166	166	166	166
1	153	158	171	185	189	171	164	170	171	171	171
2	158	154	159	171	185	189	171	164	170	172	172
3	191	163	159	164	177	192	196	177	170	176	178
4	193	197	168	164	168	182	197	201	182	175	181
5	188	195	200	171	167	170	185	200	204	185	178
6	209	193	201	205	176	171	175	190	205	209	190
7	231	214	197	205	210	180	176	179	194	209	214
8	189	232	214	198	206	211	180	176	179	194	210
9	199	194	238	221	204	211	218	186	182	184	200
10	204	198	193	236	220	203	210	217	186	181	183
11	151	194	188	184	225	209	193	200	206	176	172
12	175	154	198	192	187	230	214	197	204	210	180
Total K – 12	2,394	2,412	2,465	2,479	2,480	2,478	2,442	2,422	2,419	2,411	2,395
K – 5	1,036	1,033	1,036	1,038	1,051	1,062	1,077	1,078	1,063	1,045	1,046
6 – 8	629	639	612	608	592	562	531	544	578	613	613
9 – 12	729	740	817	833	837	853	835	800	778	752	736

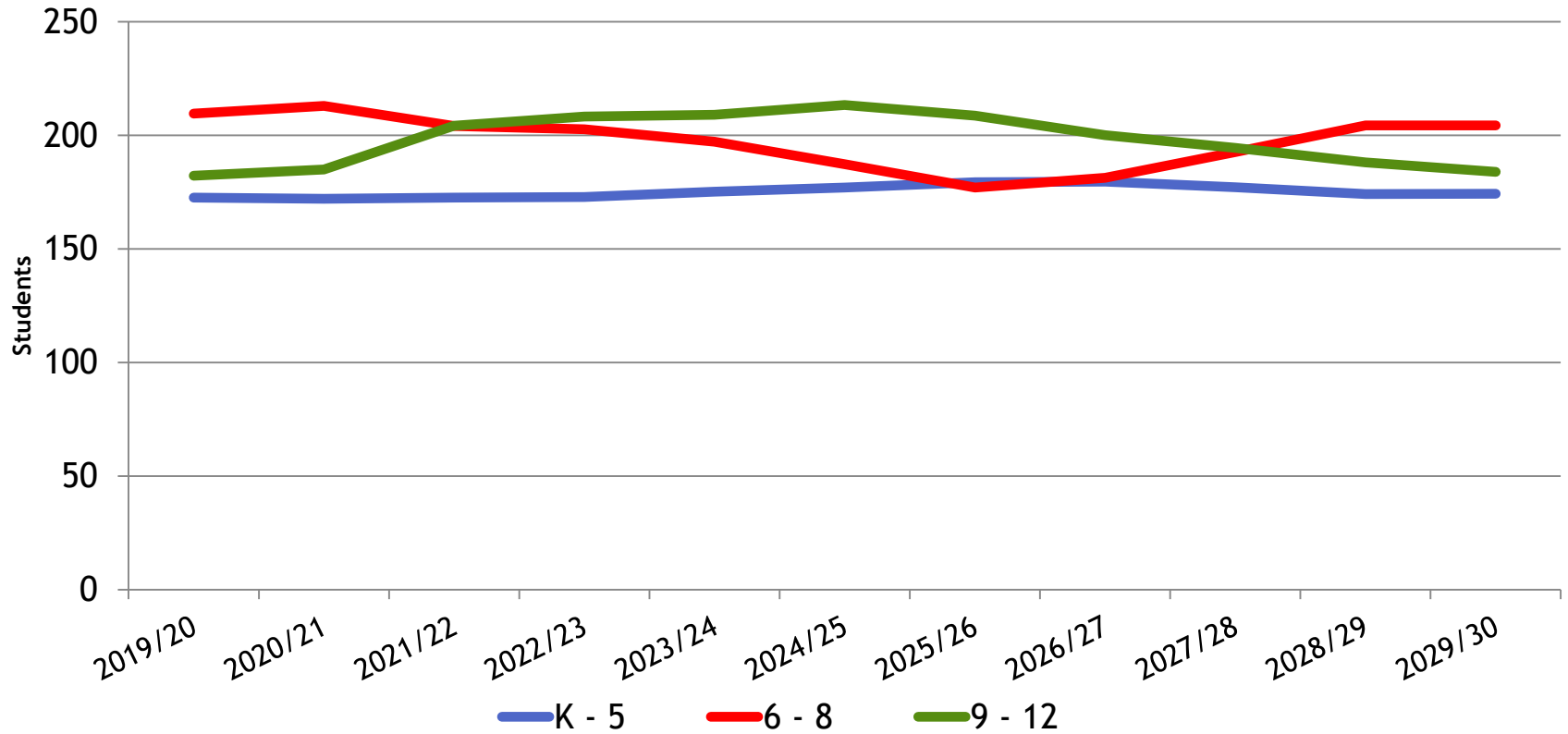
Spearfish K-12 Projection to 2029/30



Enrollment by Grade Group

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
K – 5	1,036	1,033	1,036	1,038	1,051	1,062	1,077	1,078	1,063	1,045	1,046
6 – 8	629	639	612	608	592	562	531	544	578	613	613
9 – 12	729	740	817	833	837	853	835	800	778	752	736
Total	2,394	2,412	2,465	2,479	2,480	2,478	2,442	2,422	2,419	2,411	2,395

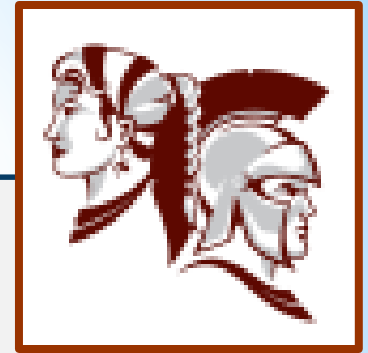
Spearfish K-12 Projection: Average Grade Size by Grade Group



Average Grade Size by Grade Group

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
K - 5	173	172	173	173	175	177	179	180	177	174	174
6 - 8	210	213	204	203	197	187	177	181	193	204	204
9 - 12	182	185	204	208	209	213	209	200	194	188	184

Spearfish Schools Student Enrollment Projection to 2029/30



Highlights

- K-12 enrollment is expected to rise slightly and then gently ease back with an overall gain of just 0.1%.
- The primary factor driving change will be several larger than average classes anticipated in 2021/22 and 2022/23 and working their way through the grades.
- Average K-5 classes start in low 170s, rise to 180 before easing back; 6-8 classes decline from 210 to 180 then rise to 200; 9-12 classes begin at 182, rise to around 210, then fall into 180s.
- The number of non-resident students will rise 6.7% in response to population growth in adjacent districts especially Belle Fourche and Meade County.

Using the Projection

- This is a projection not a prediction. It is built on assumptions regarding the best understanding of district dynamics such as open enrollment and future births.
- The projection produces relatively smooth trend lines because it uses averages and constants. The reality is there will be annual fluctuations especially in such things as incoming kindergarten classes.
- Do not be concerned when actual numbers vary in a given year from the projection. Each year:
 - Check to see if the TREND and the MAGNITUDE of the projection align with the unfolding actual numbers. Evaluate deviations to determine the likely reason.
 - Monitor annual births (state health department data) to see if there are significant deviations from what is assumed in the projection.

Questions & Answers



This projection was prepared for ICS Consulting, Inc. by
Applied Insights^{north} : John Powers, Principal / 181 Farley Lane, Duluth MN 55803 / 218.724.2332
/ johnwpowers181@gmail.com

October 22, 2019

Previous enrollment projections and education projects by Applied Insights^{north}:

Enrollment projections:

Minnesota: Greenway, Nashwauk-Keewatin, Mora, Grand Rapids/Bigfork, Thief River Falls, Deer River, St. Louis County, Mountain Lake, Hermantown, Fosston, Northland (Remer), Nevis, Wheaton, Melrose, Red Lake Falls, Sebeka, Aitkin, Mahnommen, Eveleth-Gilbert, Menahga, Hill City, Hinckley-Finlayson, Staples-Motley, Carlton, Fertile-Beltrami, Wadena-Deer Creek, Red Rock Central, Osakis, Dawson-Boyd, Montevideo, Roseau, Virginia, Waubun-Ogema-White Earth, Brandon-Evansville, Breckenridge, Ely, New York Mills, Belgrade-Brooten-Elrosa, Browerville, Sauk Rapids-Rice, Park Rapids
North Dakota: Grafton, Minto, Park River, North Border, Carrington, Thompson, Midkota
South Dakota: Groton, Lead-Deadwood, Madison Central
Wisconsin: Northwestern (Maple, WI), Washburn, Ashland

Itasca Area Schools Collaborative

Red Lake College Enrollment Assessment

Iron Range Higher Education Committee

Northeast Higher Education District (Minnesota State College and University system)

St. Louis County Schools long-range facilities plan.