

SOUTH DAKOTA BOARD OF REGENTS

Committee on Academic and Student Affairs

AGENDA ITEM: III – D

DATE: March 28-29, 2012

SUBJECT: In-State Placement of Regental Teacher Education Graduates

This report summarizes the results of an analysis of in-state teacher placement conducted in partnership with the South Dakota Department of Education. The analysis provides a series of tables, figures, and spatial heat maps that illuminate trends in in-state teacher placement.

RECOMMENDED ACTION OF THE EXECUTIVE DIRECTOR

Information only.

In-State Placement of Regental Teacher Education Graduates

Background

A study released in 2012 by Georgetown University found that recent graduates in education are among the nation's highest-employed (with a mere 5.4% unemployment rate among workers in the 22-26 age range), as compared with graduates from other fields.¹ In November 2011, a joint effort was undertaken by the SD Board of Regents and the SD Department of Education to examine the extent to which graduates from (Regental) undergraduate teacher education programs are hired by in-state school districts following graduation. This project extends a similar study conducted in 2009 by adding additional graduate cohorts and additional years of placement data.

A roster of all undergraduate teacher education graduates from FY2002 through FY2010 was compiled by Regents Information Systems (RIS) staff. This list was shared with SDDOE for the purpose of conducting a matching query on state employment records from FY2003 through FY2011.² The resulting dataset allowed SDBOR research staff to analyze the in-state placement outcomes of Regental graduates for every year following graduation. Because the dataset is cohort-based, incrementally more data are available for earlier graduates; for example, nine years of placement data are available for FY2002 graduates, eight years of data are available for FY2003 graduates, and so on.

Graduate Characteristics

A total of 4,013 students completed a bachelor's degree at one of the five Regental teacher education programs from FY2002 through FY2010.³ Table 1 shows that the proportional distribution of graduates was relatively consistent across the nine-year period, though annual graduate counts fell by 24.9% (system-wide) over this timeframe. Across all years, over three-quarters (75.8%) of all teacher education graduates have been residents of South Dakota.

Table 1.
Graduates by Institution, Year, and Residency (FY02-FY10)

	<i>FY02</i>	<i>FY03</i>	<i>FY04</i>	<i>FY05</i>	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>FY09</i>	<i>FY10</i>	<i>Total</i>	<i>Residents</i>	<i>non-Residents</i>
<i>BHSU</i>	133 26.1%	116 24.1%	122 25.6%	119 27.1%	116 25.8%	92 21.7%	89 21.4%	104 24.0%	107 27.9%	998 24.9%	716 71.7%	282 28.3%
<i>DSU</i>	70 13.7%	59 12.3%	67 14.1%	60 13.7%	74 16.4%	57 13.4%	40 9.6%	45 10.4%	43 11.2%	515 12.8%	435 84.6%	79 15.4%
<i>NSU</i>	106 20.8%	102 21.2%	104 21.9%	77 17.5%	90 20.0%	84 19.8%	59 14.2%	68 15.7%	59 15.4%	749 18.7%	627 83.9%	120 16.1%
<i>SDSU</i>	115 22.6%	126 26.2%	115 24.2%	116 26.4%	106 23.6%	110 25.9%	124 29.8%	113 26.0%	82 21.4%	1,007 25.1%	729 72.5%	277 27.5%
<i>USD</i>	86 16.9%	78 16.2%	68 14.3%	67 15.3%	64 14.2%	81 19.1%	104 25.0%	104 24.0%	92 24.0%	744 18.5%	533 71.6%	211 28.4%
<i>System</i>	510 100.0%	481 100.0%	476 100.0%	439 100.0%	450 100.0%	424 100.0%	416 100.0%	434 100.0%	383 100.0%	4,013 100.0%	3,040 75.8%	969 24.2%

¹ Carnevale, A.P., Cheah, B., & Strohl, J. (2012). *College majors, unemployment and earnings: Not all college degrees are created equal*. Sponsored research report. Washington DC: Georgetown University Center on Education and the Workforce. Retrieved from <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Unemployment.Final.pdf>

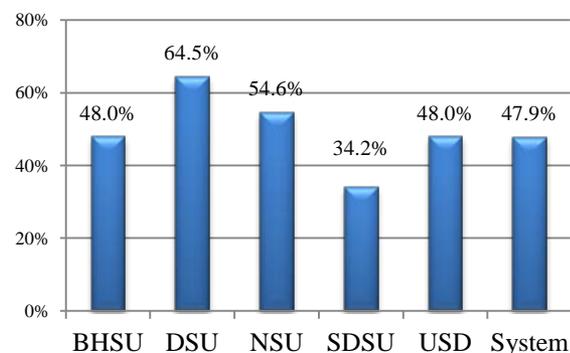
² Matches were returned based on school districts' beginning-of-year employment records.

³ In a small number of cases, graduate data are duplicated across two or more institutions. For example, a student completing separate degrees at BHSU and NSU (either in the same year or in different years) will be counted twice in the dataset. For students completing multiple degrees at the *same* institution, only the first graduation record was retained. Data includes bachelor's degree completers only, and thus excludes certificate completers.

Placement Outcomes by Institution and Residency

Data from the SDDOE matching query indicate that approximately one-half (47.9%) of all bachelor's-level teacher education graduates ultimately are placed in an in-state school district following graduation.⁴ Table 2 provides additional detail with respect to in-state placement rates, and suggests that these rates are dramatically higher among graduates who originally matriculated from South Dakota (i.e., 58.1% for residents versus 15.9% for non-residents). By institution, DSU produced the highest placement rates for residents and non-residents alike. DSU's net placement rate of 64.7% leads all institutions, followed by NSU (54.6%), BHSU (48.0%), USD (48.0%), and SDSU (34.2%).

Figure 1.
Placement by Institution (FY02-FY10)



It is important to note that the placement rates cited throughout this analysis refer only to the proportion of teacher education graduates who are hired by in-state school districts. Placement rates do not include graduates who may have been hired by an out-of-state school district, hired by an educational organization other than a school district, hired outside the field of education, or entered graduate school. "Placement rate," then, should not be interpreted as an equivalent to "employment rate."

Table 2.
Placement Outcomes by Institution and Residency (FY02-FY10)

	Residents Only			non-Residents Only			All Graduates		
	Placed	Not Placed	Total	Placed	Not Placed	Total	Placed	Not Placed	Total
BHSU	441 61.6%	275 38.4%	716 100.0%	38 13.5%	244 86.5%	282 100.0%	479 48.0%	519 52.0%	998 100.0%
DSU	313 72.0%	122 28.1%	435 100.0%	19 24.1%	60 76.0%	79 100.0%	332 64.5%	183 35.5%	515 100.0%
NSU	384 61.2%	243 38.8%	627 100.0%	25 20.8%	95 79.2%	120 100.0%	409 54.6%	340 45.4%	749 100.0%
SDSU	309 42.4%	420 57.6%	729 100.0%	35 12.6%	242 87.4%	277 100.0%	344 34.2%	663 65.8%	1,007 100.0%
USD	320 60.0%	213 40.0%	533 100.0%	37 17.5%	174 82.5%	211 100.0%	357 48.0%	387 52.0%	744 100.0%
System	1,767 58.1%	1,273 41.9%	3,040 100.0%	154 15.9%	815 84.1%	969 100.0%	1,921 47.9%	2,092 52.1%	4,013 100.0%

⁴ This figure reflects the proportion of students who are placed in an in-state school district *any* year following graduation. By comparison, approximately 34.1% of graduates are placed in an in-state school district in the *first* year after graduation. In examining tabled values, it is important to keep in mind that cohorts have spent unequal amounts of time on the job market.

Placement Outcomes by Content Area

Undergraduate teacher education training programs can be categorized into thirty one different content areas. Table 3 (below) presents placement data by content area, and shows that several areas generated placement rates exceeding 50.0%. These fields include middle school (73.7%), earth/physical sciences (71.4%), physics (66.7%), elementary education / special education (66.4%), elementary education (54.9%), foreign language (54.0%), computer science / technology (53.2%), biology (53.1%), and mathematics (50.3%). These fields account for 57.4% of graduates during the FY02-FY10 timeframe. By contrast, the five areas with the lowest placement rates (journalism, industrial technology, aviation, geography, and career and technical education) account for less than one percent of all completers over this period.

Table 3.
Placement Outcomes by Content Area (FY02-FY10)

	<i>Frequency</i>			<i>Percentage</i>		
	<i>Placed</i>	<i>Not Placed</i>	<i>Total</i>	<i>Placed</i>	<i>Not Placed</i>	<i>Total</i>
<i>Middle School</i>	14	5	19	73.7%	26.3%	100.0%
<i>Earth / Physical Sciences</i>	5	2	7	71.4%	28.6%	100.0%
<i>Physics</i>	2	1	3	66.7%	33.3%	100.0%
<i>Elementary Ed / Special Ed</i>	190	96	286	66.4%	33.6%	100.0%
<i>Elementary Education</i>	881	724	1,605	54.9%	45.1%	100.0%
<i>Foreign Language</i>	34	29	63	54.0%	46.0%	100.0%
<i>Computer Science / Technology</i>	25	22	47	53.2%	46.8%	100.0%
<i>Biology</i>	51	45	96	53.1%	46.9%	100.0%
<i>Mathematics</i>	90	89	179	50.3%	49.7%	100.0%
<i>Special Education</i>	30	32	62	48.4%	51.6%	100.0%
<i>Art</i>	46	50	96	47.9%	52.1%	100.0%
<i>Business</i>	23	26	49	46.9%	53.1%	100.0%
<i>Music</i>	100	118	218	45.9%	54.1%	100.0%
<i>English</i>	91	113	204	44.6%	55.4%	100.0%
<i>Chemistry</i>	6	8	14	42.9%	57.1%	100.0%
<i>Social Science / Political Science / Sociology</i>	45	63	108	41.7%	58.3%	100.0%
<i>Family & Consumer Sciences</i>	22	31	53	41.5%	58.5%	100.0%
<i>Composite Sciences</i>	2	3	5	40.0%	60.0%	100.0%
<i>Early Childhood Ed / Special Ed</i>	11	17	28	39.3%	60.7%	100.0%
<i>Economics</i>	1	2	3	33.3%	66.7%	100.0%
<i>History</i>	68	136	204	33.3%	66.7%	100.0%
<i>Early Childhood Education</i>	69	148	217	31.8%	68.2%	100.0%
<i>Agriculture</i>	26	60	86	30.2%	69.8%	100.0%
<i>Psychology</i>	2	5	7	28.6%	71.4%	100.0%
<i>Speech / Theatre</i>	7	18	25	28.0%	72.0%	100.0%
<i>PE / Health</i>	78	220	298	26.2%	73.8%	100.0%
<i>Career & Technical</i>	1	4	5	20.0%	80.0%	100.0%
<i>Geography</i>	1	11	12	8.3%	91.7%	100.0%
<i>Aviation</i>	0	8	8	0.0%	100.0%	100.0%
<i>Industrial Technology</i>	0	3	3	0.0%	100.0%	100.0%
<i>Journalism</i>	0	3	3	0.0%	100.0%	100.0%
<i>Total</i>	1,921	2,092	4,013	47.9%	52.1%	100.0%

Placement and Persistence

The placement rates presented above give a rough snapshot of the placement outcomes for teacher education program completers. However, also of interest is the degree to which these graduates 1) persist in seeking entry into the in-state education workforce and 2) remain in the workforce once hired. Tables 4 and 5 provide analytic leverage on these matters by examining persistence and retention data for five cohorts (FY02, FY03, FY04, FY05, and FY06).⁵

Table 4 summarizes – for each year following graduation – the fraction of each cohort taking a *first* in-state position. For example, 33.7% of students graduating in FY02 were hired for the first time in the first subsequent academic year, while an additional 7.5% were hired for the first time during the second year after graduation. These data suggest that while most graduates who will eventually be hired by an in-state school district do so during the first year after graduation, a substantial segment do so in one of the following years. In fact, approximately 32.5% of graduates placed within five years received their first placement during years two, three, four, or five.

Table 4.
Year of First Placement by Cohort (FY02-FY06)

	<i>n Grads</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Total</i>
FY02	510	33.7%	7.5%	2.5%	2.2%	1.0%	46.9%
FY03	481	29.5%	6.4%	4.2%	1.9%	1.5%	43.5%
FY04	476	28.4%	10.5%	6.1%	2.1%	1.7%	48.7%
FY05	439	38.0%	9.8%	3.0%	2.7%	0.9%	54.4%
FY06	450	32.4%	8.4%	4.0%	1.1%	0.7%	46.7%
Average	471	32.4%	8.5%	4.0%	2.0%	1.1%	48.0%

Table 5 presents data on the longitudinal placement outcomes of Regental graduates. As a measure of workforce retention, these data indicate that while an average of roughly one third (32.4%) of Regental graduates are placed during the first year after graduation, this figure climbs in the second year to 37.1%. All five cohorts exhibited a similar pattern of persistence, with the lowest placement values occurring in year one, higher values in years two and three, and a gradual leveling in years four and five.

Table 5.
Longitudinal Placement Outcomes by Cohort (FY02-FY06)

	<i>n Grads</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Unduplicated</i>
FY02	510	33.7%	37.3%	36.5%	33.5%	32.7%	46.9%
FY03	481	29.5%	33.1%	33.7%	33.3%	34.3%	43.5%
FY04	476	28.4%	34.7%	37.2%	37.8%	38.0%	48.7%
FY05	439	38.0%	42.8%	39.6%	40.5%	39.0%	54.4%
FY06	450	32.4%	37.6%	36.7%	34.9%	34.7%	46.7%
Average	471	32.4%	37.1%	36.7%	36.0%	35.7%	48.0%

Figure 2 displays averaged attrition data for the five cohorts described above – more specifically, those graduates who were placed during the initial year of placement eligibility. Approximately 11.9% of placed students did not return for a second year of teaching. By the fourth year after initial placement, roughly 26.7% of teachers were no longer employed in in-state school districts.

Figure 2.
Attrition of Graduates Placed in First Year



⁵ These are the only cohorts for which five years of data are available.

Geographic Distribution

The following spatial heat maps provide a visual overview of the geographic distribution of undergraduate teacher education program completers. For each institutional unit (System, BHSU, DSU, NSU, SDSU, USD), two maps are provided: 1) the distribution of South Dakota counties from which teacher education graduates matriculated, and 2) the distribution of South Dakota counties in which teacher education graduates received their first in-state placements. [Note: Values are rounded to the nearest 1.0.] Visual inspection confirms that each map set shares one common characteristic: Regental institutions both *import students from* and *export students to* counties that are physically proximate to campus. Clearly then, Regental institutions are vital to the geographic regions in which they are situated.

Figure 3a
SDBOR System: Teacher Education Graduates (SD Residents) by County of High School Graduation

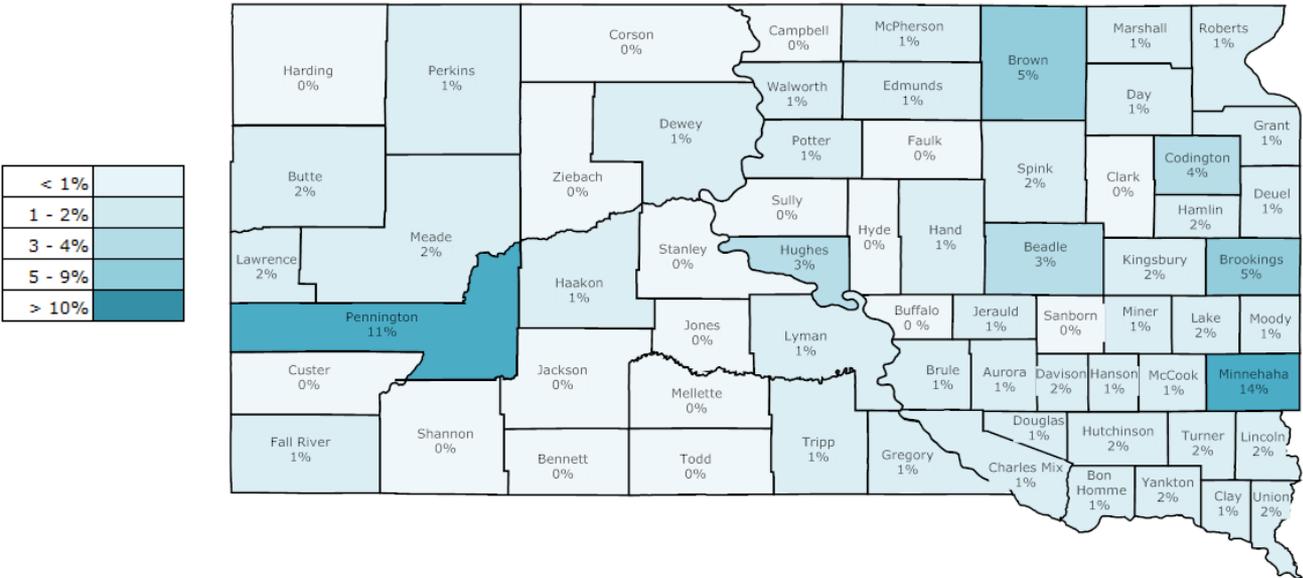


Figure 3b
SDBOR System: Teacher Education Graduates by County of First Placement

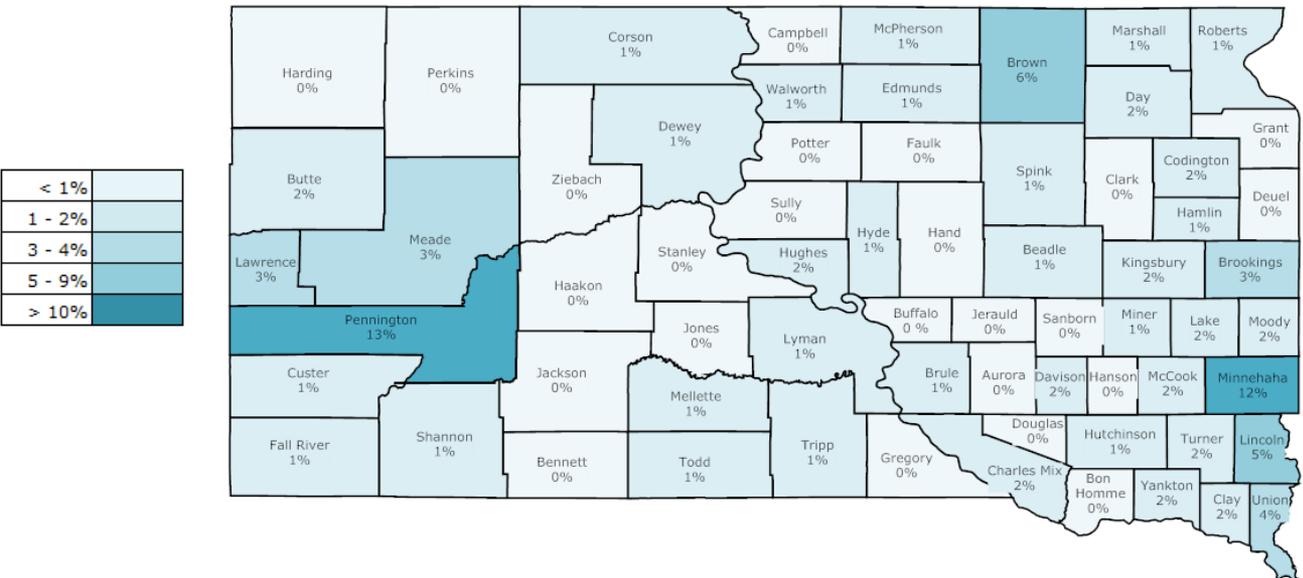


Figure 4a
BHSU: Teacher Education Graduates (SD Residents) by County of High School Graduation

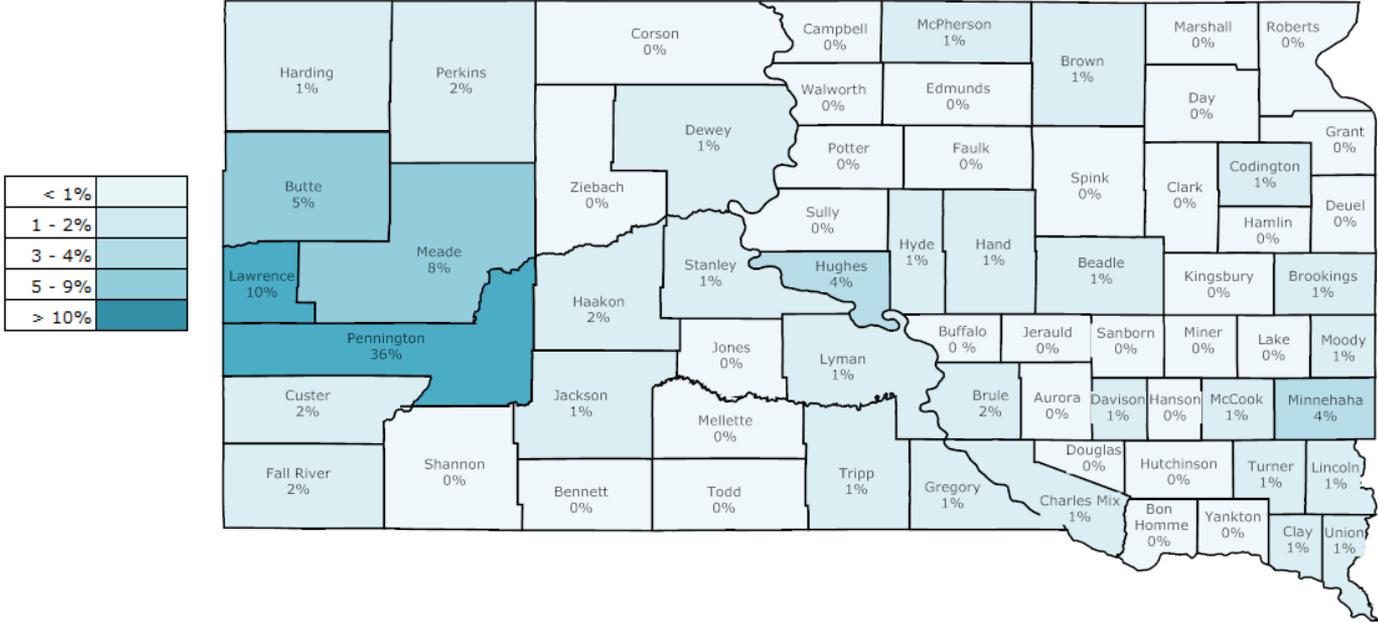


Figure 4b
BHSU: Teacher Education Graduates by County of First Placement

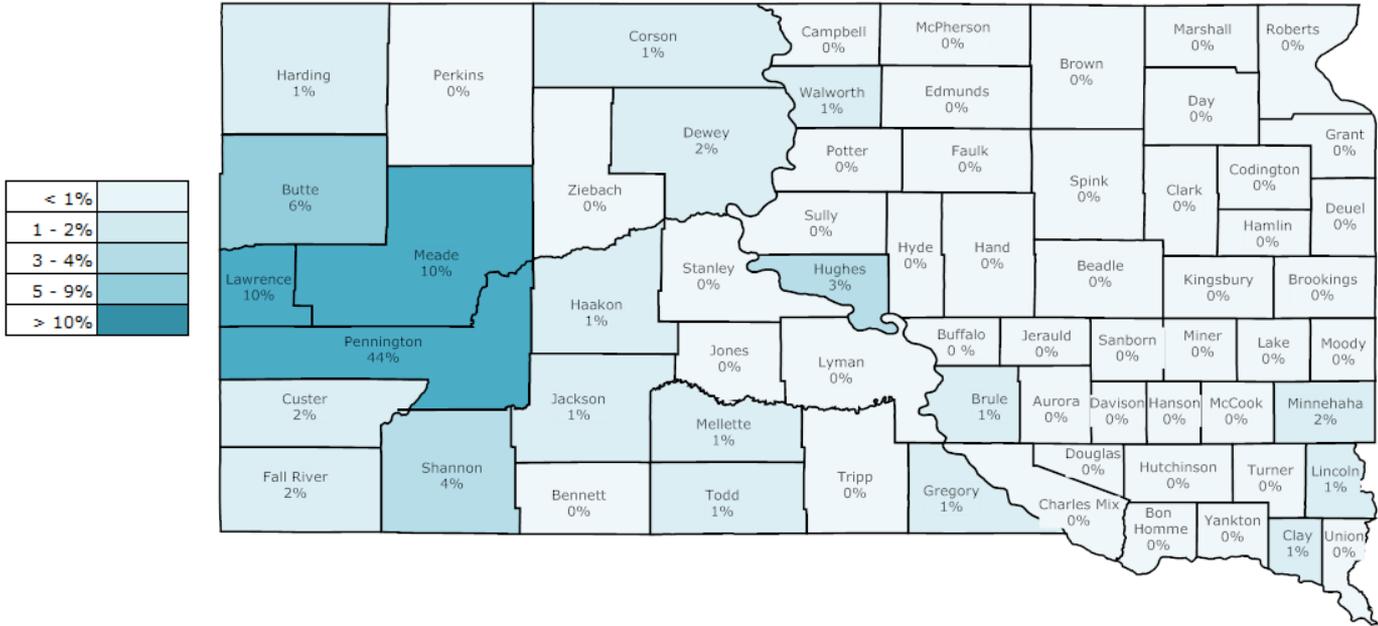


Figure 5a
DSU: Teacher Education Graduates (SD Residents) by County of High School Graduation

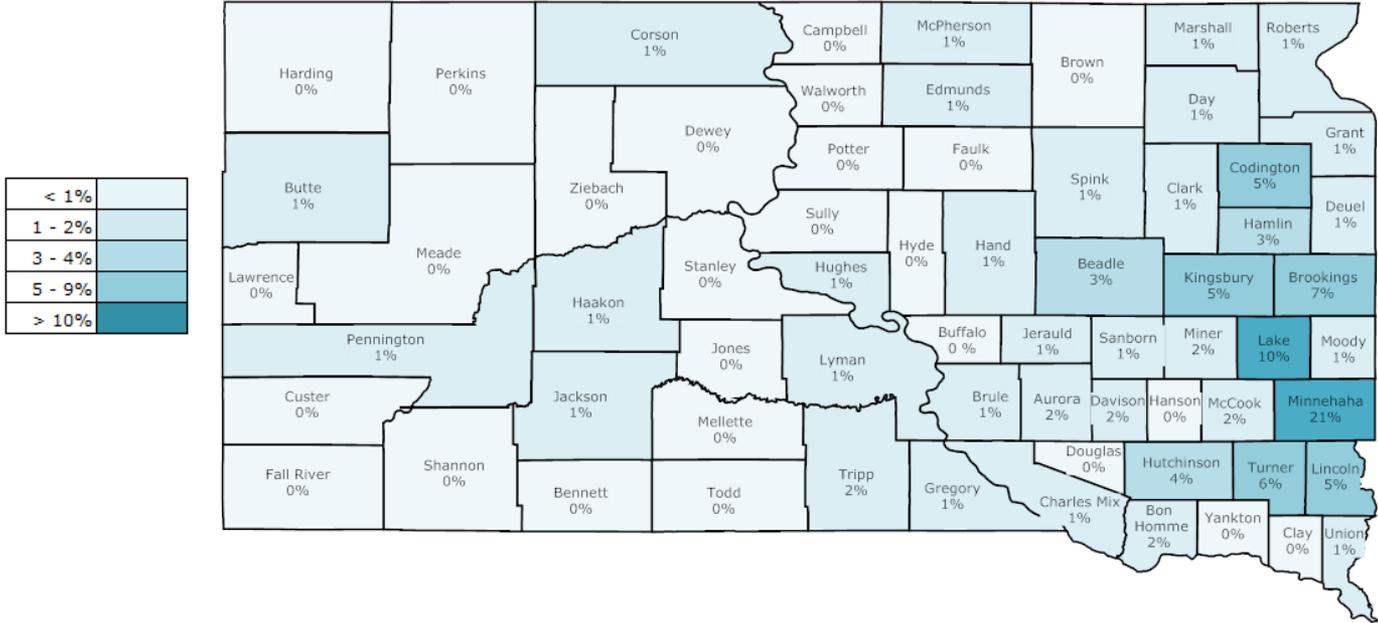


Figure 5b
DSU: Teacher Education Graduates by County of First Placement

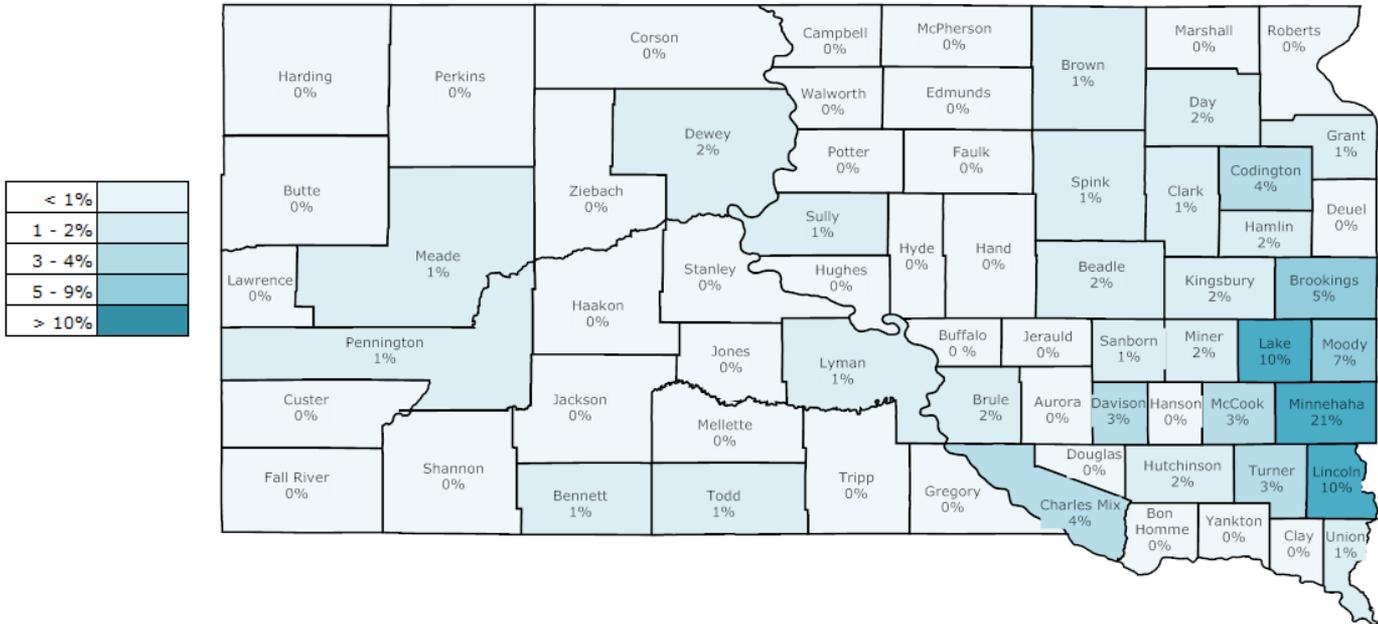


Figure 6a
NSU: Teacher Education Graduates (SD Residents) by County of High School Graduation

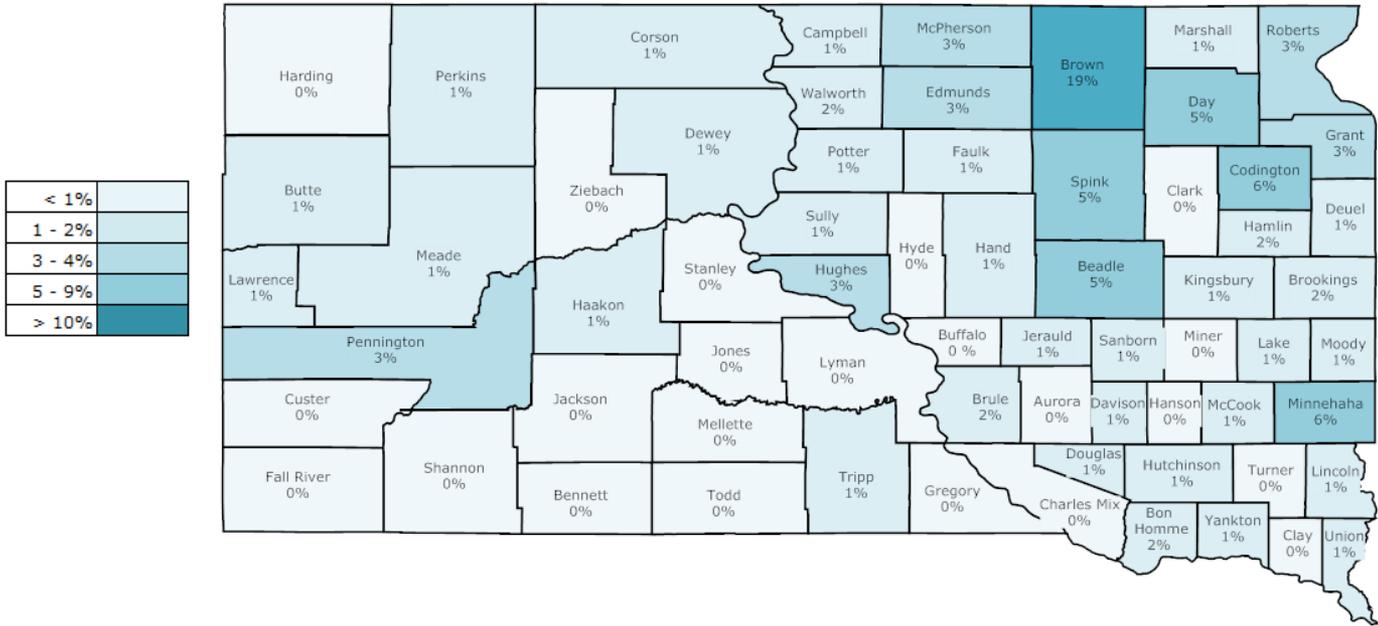


Figure 6b
NSU: Teacher Education Graduates by County of First Placement

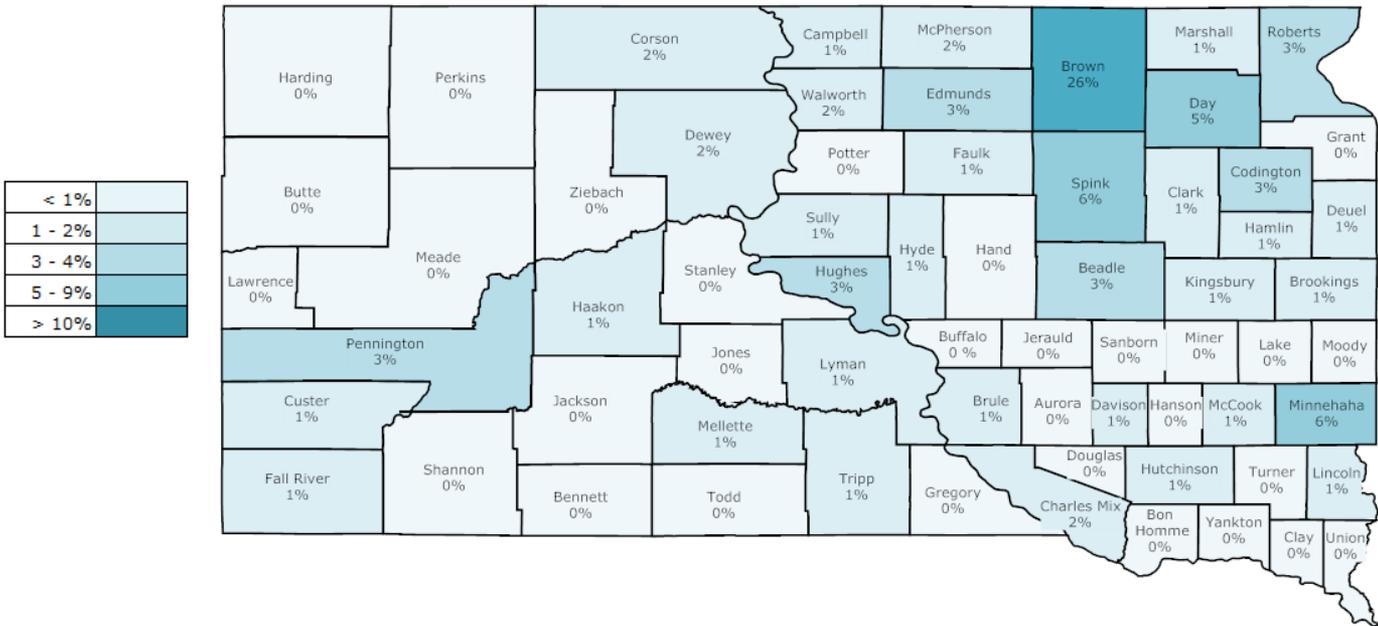


Figure 7a
SDSU: Teacher Education Graduates (SD Residents) by County of High School Graduation

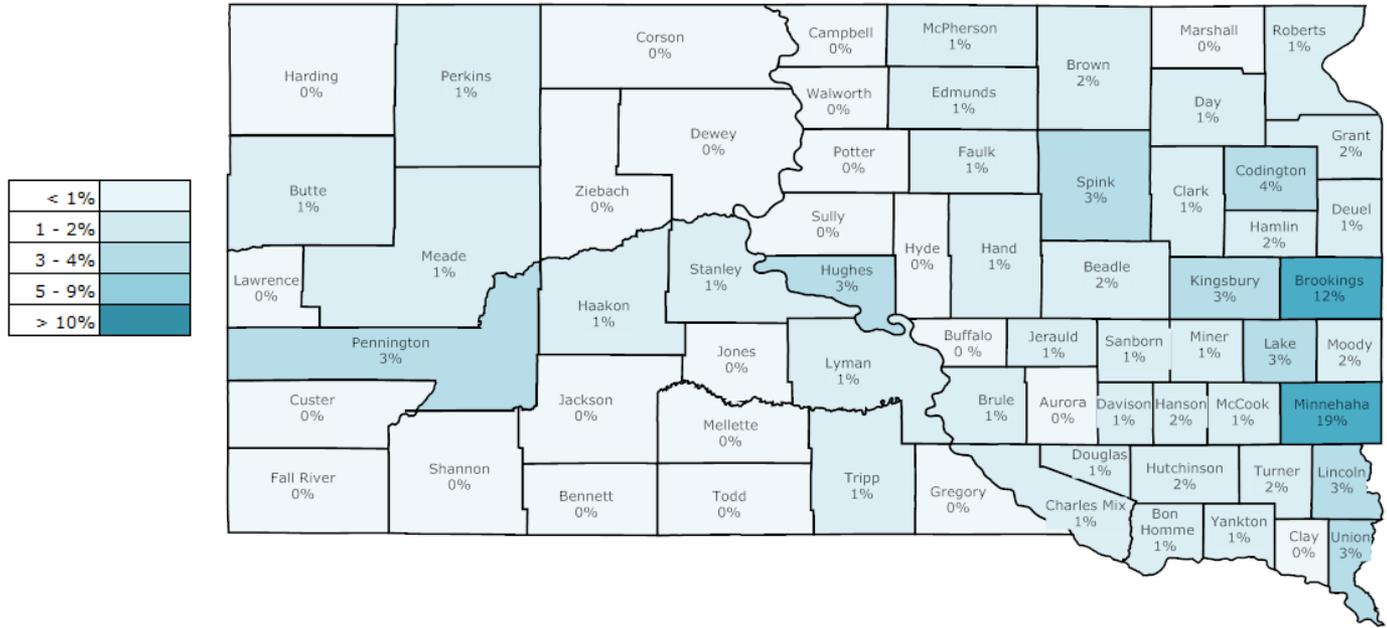


Figure 7b
SDSU: Teacher Education Graduates by County of First Placement

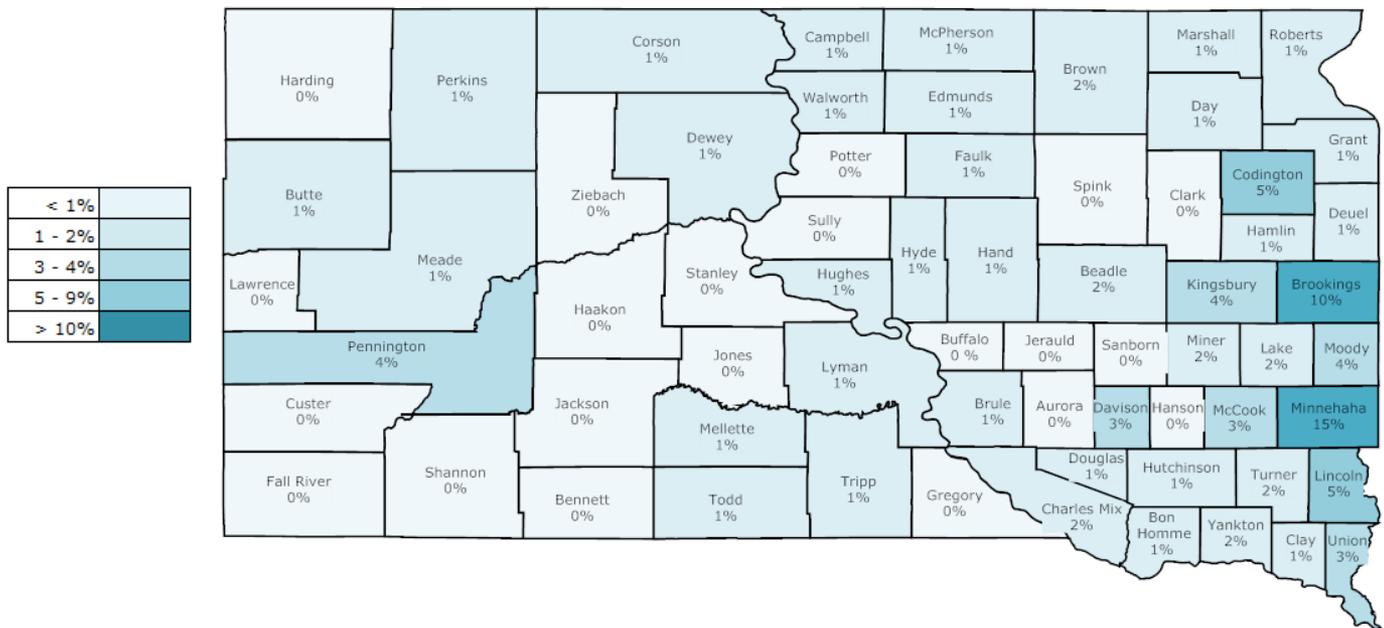


Figure 8a
USD: Teacher Education Graduates (SD Residents) by County of High School Graduation

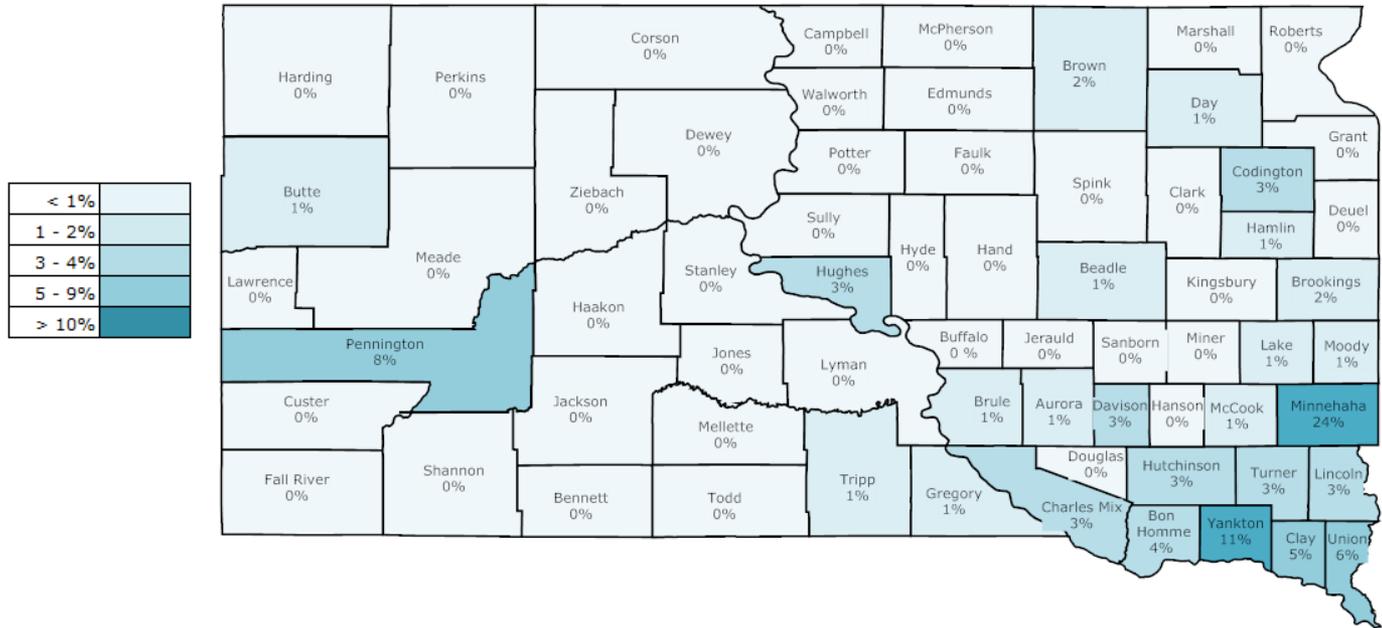


Figure 8b
USD: Teacher Education Graduates by County of First Placement

