

# Examining the Teacher Pipeline: Will They Stay or Will They Go?

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*This study examines survey data from teacher education students in their final two years of preparation at a Midwestern university. We asked students to explain if they intend to stay in our state or move to other states to pursue teaching careers after graduation. We compiled all 137 responses using descriptive statistics and found that 59% of respondents intend to leave our state after graduating. Of the remaining respondents, 21% intend to stay in our state and 20% are unsure of their plans. We used qualitative methods to code students' responses, giving reasons for their intentions. While students mentioned financial reasons (low salary and debt) most often, students also valued a sense of place (home, family). Comparisons to populations studied in Carr and Kefalas (2009) and Petrin, Schafft, & Meece (2014) are made with implications for all concerned about the national teacher shortage and outmigration of graduates in rural states.*

**Keywords:** teacher shortage, teacher pay, out-migration, rural education, brain drain

The challenge of filling the increasing number of teacher vacancies in our country and in our state has the attention of school administrators, knowledgeable parents, community and school board members, and local, state, and national officials alike. According to a report by American College Testing (ACT), our nation faces a projected 14% increase in the number of secondary teachers needed between 2010 and 2021. In addition, the number of teacher retirees will increase. However, from 2010 to 2014, high school graduates expressing an interest in the teaching profession decreased by 16% (ACT, 2014). These statistics foreshadow an increasing shortage in the teacher pipeline.

What do we know about the teacher shortage problem? To understand it, we must recognize the perspectives of those preparing to fill the vacancies. As teacher educators, we want to provide a forum for students currently enrolled in our teacher education program; they have something to say about their profession. Our students are in the teacher pipeline. Will they decide to teach after graduating? Will they stay in our state or migrate to other places? If they go, what are their reasons for leaving? Do they share the concerns of others in the profession?

## Examining Rural Out-migration

Residents of rural states have grown accustomed to an out-migration of people, particularly from the younger and better-educated

segment of the population. Carr and Kefalas (2009) documented this pattern from the past 45 years after studying Iowa schools, communities, and support systems. Their data show more than 700 rural counties had lost over ten percent of their population; most are the counties and states stretching down the middle of the nation. Historically, there has been a movement of people from agricultural communities to urban industrial centers (Boorstin, 1973; Danborn, D. 1995; Putnam, R. D., 2000).

Through their research in Iowa, Carr and Kefalas (2009) focused attention on a younger generation of Midwesterners, their teachers, and their families in a sociological study to determine patterns of decision-making. The study identified four categories that describe the young people who either stay or leave their rural communities after graduating from high school. For the purposes of our study, a group that Carr and Kefalas called the "Achievers" resembles the student population we examine here. Achievers are high school graduates who have demonstrated academic promise through high ACT scores, set their sights on earning college degrees, and received significant encouragement and support from their families and their teachers to do so. Many of these achievers took advantage of an excellent, affordable university education in their home state of Iowa to earn their college diplomas; then they were most likely to leave the rural environment for urban opportunities. Carr and Kefalas labeled this

outmigration of talented young professionals “rural brain drain” (2009).

A follow-up study on this topic by Petrin et al. (2014) examined a comparable rural population but focused specifically on the achievers as a group. This research also found that encouragement from families, teachers, and community members fostered aspirations in high achieving 11<sup>th</sup> and 12<sup>th</sup> grade students to earn college degrees and success by leaving their rural homes. However, once these students met their collegiate goals, the same support system that once encouraged the achievers to leave also reached out to draw them back to their home communities. Their efforts brought about a reversal of the brain drain. To summarize, Petrin et al. (2014) noticed a pattern of two diverse paths for the achievers: those who continued to find success away from home (“achiever leavers”) and those who were drawn to return to their rural roots and the small towns that nurtured them (“achiever stayers”) (p. 15). The achievers group divided evenly along these lines. These findings offer hope for rural communities to be invigorated with a new generation of residents.

However, even more essential than community revival is mere survival. From his Nebraskan perspective, Hyde (1997) stated that “rural communities are no more than one generation away from extinction” (as cited in Rogers, 2007, p. 209). Small towns have held this precarious position for decades. South Dakota writers clarified this point by describing our state’s small towns with their historic booms and busts (Rogers, 2007; Miller, 2007; Redlin, 2007). Yet, these writers also argue communities can choose to direct their own futures. They insist opportunities for rural revival hinge on creative economic and social decisions, the kind that would lure the “achiever stayers” to return and invest their lives in the places that nurtured them toward academic success. Similarly, Woodard (2007) challenges his readers to be “proactive in response to our region’s urgent need” by defying “the belief that certain changes are inevitable” (p. 2-3). Woodard affirms the power of rural communities to provide a secure nurturing place. On a larger scale, Carr and Kefalas (2009) also argue that “the health of the small towns dotted across the Heartland matters because, without them, the country couldn’t function, in the same way that a body cannot function without a heart” (p. x). Preserving rural communities matters far beyond the immediate locale.

### **Why Place Matters**

Because many college students are at a time of exploration and speculation in their lives, they wonder where they belong and where they will fit in.

After studying rural students graduating from a community college, Wright (2012) described students who recognized the value of their rural communities. These graduates considered the opportunity to put their education to work locally. While some students anticipated earning a degree in order to leave their home communities, others “discussed their post-secondary training in relation to local contexts, connecting their education to improved quality of life, both for their families and their rural communities” (Wright, 2012, p. 1). For rural students, the attachment to the small communities that nurtured them remains strong and attractive (Theobald, 1997; Miller, 2007).

Other writers identified a different tendency of graduates leaving home to create brighter futures elsewhere. Berry (2004) described a close connection between where we live and who we are. “It is hard to mark the difference between our life and our place, our place and ourselves” (p. 106). Thus, for some graduates, where they come from has significance, and they feel drawn toward the familiarities of home. And yet, Berry (2004) continued, “The way of education leads away from home.” (p. 112). As a result of their education, students might think and feel differently about where they choose to live after graduating. They have learned about other places and possibilities and perhaps have experienced those realities. Carr and Kefalas (2009) found that graduates often aspire to earn higher incomes and enjoy the lifestyle this affords.

### **Why Economics Matter**

In addition to this attachment for place, Petrin et al. (2014) identified “economic factors [as] the major correlates of youth residential aspirations” (p. 308). This finding emerged as researchers interviewed 11<sup>th</sup> and 12<sup>th</sup> grade students in rural schools about their career goals. Responses from these students indicated they had an awareness of local economic reality: “student perceptions of the local labor market distinguish the Leavers from the Stayers” (p. 310). They seriously consider their job options in planning their futures.

Adults also recognized the dilemma created by market conditions facing the younger generation. Petrin et al. (2014) interviewed a community member who felt ambivalent about the local options for economic success for achievers: “we know if they stay here, the income opportunities are so limited they may end up on welfare” (p. 317). The hometown regulars understand the cost of rural residency, and they understand that success is often defined in economic terms: wages matter for individual and family well-being. Another interview from a rural

teacher speculated that an achiever who wanted to return home after college may have chosen the teaching profession because she saw it as a practical way to find a job in her home community. Her teacher observed, "I don't think she [achiever] is adamantly opposed to be [sic] a teacher, but I think she picked that because that's what she sees she can do and still live here" (p. 319). This student weighed the options in her local labor market in her hometown.

### **The Brain Drain and Rural Education**

Because schools are at the heart of many small communities, the outmigration of college graduates with teaching degrees creates concern for rural residents. Researchers have identified a number of incentives and disincentives for educators to serve in rural schools. Cruzeiro and Boone (2009) reviewed numerous studies focusing specifically on a perceived shortage in applicants for school principals. Their summary of the disincentives for becoming a principal included job complexity, high levels of stress, effects on family, and low wages. Barley's (2009) review of the conditions discouraging teachers from applying in rural districts included the geographical isolation of community with lack of shopping and other amenities; however, it differed from Boone's study because the salary, supervision, and class sizes were not identified as factors under school control that impeded applicants. Also, poverty and diminished access to resources were identified as disincentives for being a rural educator (Azano & Stewart, 2015).

In our state, education officials have identified a trend of college graduates with teaching degrees leaving our state; yet, some political leaders remain skeptical and ask, "Is there a shortage?" (Anderson, 2015). Others do not always connect the trend with economic factors and wonder about geographic location as a factor (Anderson, 2015). Still, this exodus to other states has created alarm among school officials as they examine the teacher pipeline and the capacity of our state's teacher education programs to graduate sufficient numbers. A news release stated that "The latest collection of data from South Dakota's higher education institutions by the South Dakota School Administrators (SASD) revealed 260 of the more than 770 graduates who obtained an education related degree were placed in a position out-of-state" (Leischner, 2015).

A recent survey found over 20% of public schools in our state reported at least one unfilled teaching position on the first day of school in 2014 (Smith, 2014). School board members and state officials have also expressed increasing frustration at

the lack of teachers to fill vacant positions. In its August 1, 2014 blog post the Associated School Boards of South Dakota (ASBSD) noted superintendents testifying before a 2014 state legislative planning committee identified a shortage of applicants across the state in every discipline area (ASBSD, 2014). Another official repeated this concern, describing schools districts in a "crisis stage" (as cited in ASBSD, 2014, para. 3, para. 7). One study identified 258 teaching positions as vacant on May 28, 2014, with more openings anticipated for the end of the 2014-2015 school year (ASBSD, 2014). Now, in 2015, more public schools have filled positions with unqualified teachers than in the last five years (Anderson, 2015). Districts have also used "plans of intent," which allow teachers to fill positions for which they are not certified. The number of these plans increased to 758 in 2015, up from 548 plans in 2011 (Anderson, 2015).

Yet, some state leaders have mistakenly assumed the teacher shortage centers primarily on STEM and special education openings, as it did in the past. In the 1992-1993 school year, the U. S. Department of Education (2015) reported teacher shortages in South Dakota only in special education. However, the 2015-2016 report identifies shortages in these secondary areas: Career and Technical educators, Language Arts, Mathematics, Science, and Social Science. More shortages are reported at the kindergarten through secondary level: English as a New Language, Special Education, and World Languages (U.S. Department of Education, 2015, p. 138-140).

The shortage also extends to the national level with *The New York Times* noting a lack of teachers across the country, plus a 30% drop in the number of students entering the teaching profession between 2010 and 2014 (2015). Rural and urban states share this problem.

### **Understanding the Problem and Seeking Solutions**

In light of these statistics, educational and political leaders consider ways to recruit and retain highly qualified teachers. Nationally recognized education expert Linda Darling-Hammond recommended that more careful attention be focused on the problem by adding teacher incentives (Rich, 2015). Others recognized the role that the market place plays in hiring (Greene, 2015). In our state, school administrators directed attention to low teacher salaries by showing why our state often loses qualified professionals to the neighboring states such as Wyoming, North Dakota, and Nebraska. These states raised teacher pay by 24, 15, and 7 percent, respectively, since 1999 to keep up with inflation.

During that same time, our state decreased teacher salary by 0.6 percent due to a failure to adjust for inflation (ASBSD, 2014).

The South Dakota Budget and Policy Institute (2014) further explained the state's 51<sup>st</sup> ranking for teacher salary in this way:

Neighboring states have been raising the average teacher salaries of new graduates with a Bachelor's Degree and less than 2 years of experience. Our neighboring states, adjusted for cost of living, are paying between 88% and 113% of the national average for beginning teachers with similar qualifications. Our state's average teacher salary for beginning teachers is not rising faster than the national average – we are flat at 85% - the lowest in the region (*K-12*, p. 6).

These facts have generated considerable publicity in the news. As teacher educators, we recognized that our students also take interest in the salary debate, yet we did not know what the impact was on their career planning.

### **Our University Context**

A 2015 Board of Regents report described our university's population as follows: 12,557 undergraduates enrolled in the fall of 2014, with the majority coming from in-state schools. The university drew most of its students from a tri-state area, and many came from high schools enrolling fewer than 900 students. As the state's major land grant institution, our university has attracted students with interests in agriculture and related majors. In fiscal year 2014, our university graduated 1,184 undergraduate students, including 140 students in education and related fields (SDBOR, 2015).

The South Dakota Board of Regents (2014) also reports that, in 2014, 72% of graduates in the regental system had student loans. The average indebtedness was \$25,750 (SDBOR, 2014). In 2013, South Dakota students ranked second in the nation for the percentage of students who carried loans. The amount owed per student was close to the national average (The Institute for College Access, 2014). However, our students apparently take this debt more seriously in terms of loan repayment because "South Dakota has a much lower student loan default rate than the rest of the nation" (SDBOR, 2015). This has implications for their comments in our survey.

### **Teacher Education Student Concerns of Salary**

As students graduate, they consider how to pay off their loans, and salary becomes a factor in their job searches. At a private liberal arts college in South Dakota, the education faculty surveyed their

education majors in February 2015 about their plans after graduation. The survey asked those students (n=70) who did not plan to teach in South Dakota about their reasons for that choice. Seventy-four percent, or 52 students, selected the response "Salary and benefits; I can make more money in other states" (Andrews, 2015). The fact that this data came from a private school with higher tuition rates than those in the regental system limits our ability to generalize the findings to other state institutions. Yet, these findings demonstrate concern by graduates about teacher salary beyond our university.

### **Teacher Education and Sense of Place**

While advising the students in our program, we encourage them to reflect seriously on their choices of location for teaching because we recognize that schools and communities have a sense of place that defines them. The phrase *sense of place* is a complex construct (Cross, 2001). For this study, we have defined *sense of place* as the social, emotional, financial, political, or cultural reasons people find a place attractive or not. Understanding a sense of place will help students make appropriate choices for their final practicum semesters and for their first teaching position. They need to fit into their future schools and communities in terms of values, expectations, and standards of conduct to be successful. We expect our students to be willing to go where they are not familiar, to help them grow and to recognize a good fit. Thus, our field placements provide teaching opportunities in rural and urban schools of various sizes.

Ultimately, the choice of location for their first paid teaching position is theirs to make, and we wondered which factors influence their decisions. How important is sense of place to our students? How important is pay? How do our students prioritize financial issues, including student loans? Do concerns about money trump a desire for sense of place? What other factors do our students consider for their future jobs? What are the implications of these factors for filling the empty teaching positions in our state?

### **Our Study**

Many of the faculty in our teacher education program have Midwestern roots and ties to the concerns of rural education through family and friends. We follow local and statewide educational issues closely and care about the quality of schools in our state. As the initiators of this study, we also care deeply about the students in our program. We know them on a personal level because of the relatively

small size of our program and because we develop relationships through field supervision, advising, and classroom interactions. While we anticipated they would express concerns about teacher pay and the opportunities they might have in their home communities, we did not know how much a sense of place would influence their decisions after graduation. Because of the statewide shortage in teachers, we surveyed our students to investigate the capacity of our university's teacher education program to add future teachers to the profession. Specifically, we wondered about the intentions of our students who would be graduating in the next two years to pursue a teaching career. We also wondered if they intended to teach in South Dakota or teach in another state.

Our overall research goal is to give teacher candidates at our university a public voice that explains their thoughts and future plans for teaching. We intend the results to enrich public and policy discussion. This study will add the future teachers' voices to efforts to understand the capacity of the teacher pipeline in South Dakota. These voices inform us about the prospects for adding highly qualified teachers to the teaching profession in our state. Further, we identify implications for other areas of the country.

The following section will describe the survey we developed and administered to our students in the teacher education program at our university as one way to understand the teacher shortage. We will explain how we implemented the survey and how we collected and analyzed the responses. Through this data, we examined the teacher pipeline as it relates to students enrolled in the teacher education program at one Midwestern university.

## Method

The research context for this study was a Midwestern university's teacher education department. As the state's largest four-year university, we graduated 55 Early Childhood Education majors and 85 students with licensures in secondary education in the fiscal year 2015 (SDBOR, 2015). While elementary education majors from other institutions also enroll in our teacher education courses, our university does not offer an elementary education major.

In February 2015, we, a team of teacher educators, developed and administered a survey to students who were primarily juniors and seniors enrolled in our teacher education program courses during the spring 2015 semester at our university. We chose not to include students who were not enrolled in teacher education courses because we distributed

the survey through instructors of the 300/400 level teacher education courses. We chose to focus on students who had been in the teacher education program (juniors and seniors) for several semesters because they have had more time to commit to the teaching profession and complete at least one field experience. We believed these students would be more likely to be considering their post-graduation plans than the students in early program courses. This study received exempt status from the university's human subjects committee because it used educational survey data.

We asked the instructors of the 300/400 level courses to solicit voluntary participation from their students in completing the survey. No points or other rewards were given for participation. Students were also informed that names would not be used in compiling the results and that any written comments would be blinded. If students were in more than one education course, they were told to submit only one survey. Students were asked to submit their written responses either in class or by emailing their responses directly to one of the researchers. Students who responded in class submitted their survey responses to their instructors who delivered them to the researchers.

Our survey consisted of focused items that included open-ended questions and avoided leading statements (Weirisma, 2000). This method allowed students' voices to be heard using their own words and without influence or anticipated outcomes from their instructors or researchers. In addition, the open-ended construction gathered information "that would not be forthcoming with selected-response items" (Weirisma, p. 170). Students voluntarily submitted anonymous responses to the following items: 1. What is your home state? 2. Are you planning to teach after graduating? 3. What is your teaching major? 4. Do you plan to teach in South Dakota? 5. Why or why not? Because of the straight-forward nature of these items, we did not conduct a trial run.

We asked for survey responses from 157 students, receiving a total of 137 responses in the form of either surveys submitted to their instructors or submitted directly to us through e-mail. This is a response rate of approximately 88%. If students' names were included with their responses, either on the survey or in the email, we removed the names before compiling the answers. We entered all responses for items one, two, three, and four in an Excel spreadsheet and totaled the responses for each of the four items. We used descriptive statistics to compile the responses to items one through four.

For students' responses to item five, we used qualitative research coding methods as a way to reduce data. Item five asked students to justify their

responses to the item about their intentions on where to teach. First, we independently read through all responses to identify emerging patterns of thinking and significant words. Then, we discussed our notes on these patterns. We agreed on the key words and phrases to be used to code students' comments under the specific categories that emerged (Weirisma, 2000). Finally, we compared our findings and reached consensus on the results. Throughout our work, we used an Excel spreadsheet to compile and analyze the data reported in the findings section.

## Findings and Discussion

### Limitations

The findings of this study are limited in these ways: survey items and students' responses can be misinterpreted (Weirisma, 2000). Students' responses came from the teacher education program at one Midwestern university and cannot be generalized to a larger population. Students' intentions may differ from their actions upon graduation. Circumstances and life changes, such as marriage, health issues, and family needs may change the students' intentions.

### Quantitative Findings

We received a total of 137 responses with a response rate of 88%. Five elementary education students, 51 early childhood education majors, and 81 secondary education students participated. The secondary education students had majors in these content areas: agricultural education, art, biology, English, family and consumer sciences, history, math, music, physical education, physics, political science, Spanish, and speech.

We disaggregated the responses according to the students' teaching majors and secondary content areas. We further disaggregated the responses according to the response to item 4: "Do you plan to teach in South Dakota?" We found that 59% of respondents do not intend to stay in South Dakota to pursue a teacher career, 21% intend to stay in South Dakota, and 20% are unsure of their plans. Table 1 shows a frequency distribution of the number of respondents according to their teaching areas and to whether or not the teacher candidates intend to teach in South Dakota.

Table 1

#### *Teaching Majors and Intent to Teach in South Dakota*

Do you plan to teach in South Dakota?

<u>Teaching Major or Discipline</u>	<u>Yes</u>	<u>No</u>	<u>Maybe</u>
Early Childhood Education	12	29	10
Agricultural Education	0	17	2
Art and English Education	0	0	1
Art Education	0	3	1
Biology	5	0	0
Elementary Education	0	3	1
Elementary Education/Special Education	0	1	0
English Education	1	0	1
Family and Consumer Sciences	3	2	1
History Education	2	3	4
Math Education	4	5	2
Music Education	0	10	1
Physical Education	1	3	1

Physics	0	1	0
Political Science	0	1	1
Spanish	0	2	1
Speech	1	1	0
Total number responses	29	81	27
Percent of responses	21%	59%	20%

When we grouped students' responses to item four (if they intend to stay or leave) according to the degrees they were seeking, the percentages followed a similar pattern. When we grouped elementary and secondary education students together and compared their responses to early childhood education students, we found that 60% of the elementary and secondary

education major respondents stated they do not intend to stay in South Dakota, 20% of them intend to stay, and 20% are still undecided. For early childhood education majors, 57% of the respondents stated they do not intend to stay in the state, 24% said they intend to stay, and 19% are undecided. Figure 1 shows a frequency distribution of these results.

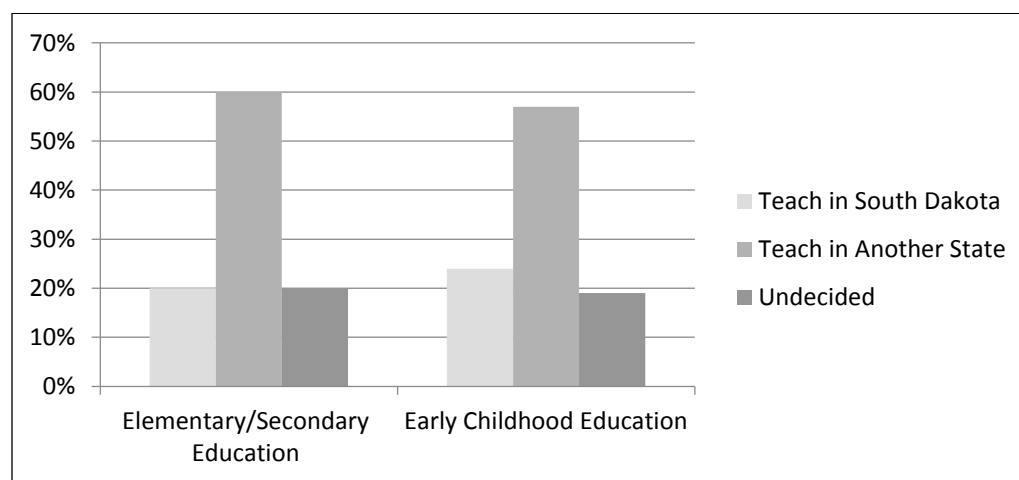


Figure 1. Responses of students according to intentions of where they plan to teach.

Next, we sorted the data according to residents and non-residents. Out of the 137 total responses received, 74 students indicated that their home state was South Dakota and 63 students indicated they were from other states. When we calculated the responses from students who are residents of South

Dakota, we found 32% of South Dakota residents intend to teach in South Dakota, 39% of South Dakota residents do not intend to teach in South Dakota, and 29% are undecided. Figure 2 illustrates these percentages.

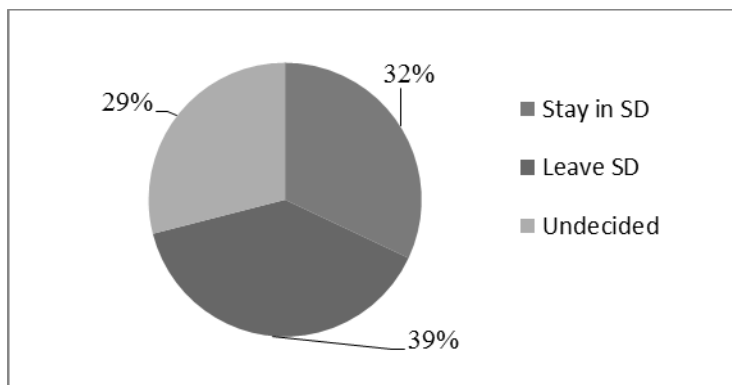


Figure 2. Responses from South Dakota resident students.

The large percentage of undecided students might show promise for filling the teacher pipeline, but it also indicates the ambivalence prevalent among future teachers. They are still considering their residency options. In the qualitative analysis below, their priorities and values emerge through the reasons given for their indecision. In terms of Petrin et. al (2014), these achievers are still determining whether they will be Leavers or Stayers.

Next, we sorted the data according to the responses from non-resident students. These students are largely inclined to leave the state upon graduating as compared to the resident students. When we calculated responses from these students, we found 7% intend to teach in South Dakota, 83% do not intend to teach in South Dakota and 10% are undecided. Figure 3 illustrates these percentages.

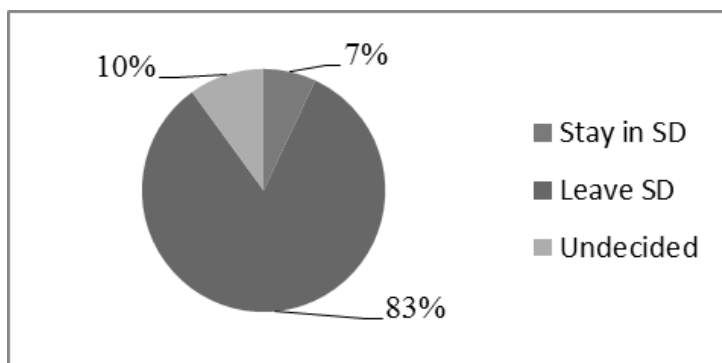


Figure 3. Non-South Dakota residents and their intentions.

The quantitative data shows a pattern of heavy outmigration of our graduates in teacher education. This leaves an inadequate number of teacher graduates who intend to remain to fill teaching positions.

### Qualitative Findings

Our survey provided students the opportunity to explain their intentions in their own words, allowing students' voices and emotional responses to be heard. We reduced this data by coding the responses according to categories that emerged from the responses. The three authors of this study, as researchers, read the responses independently, looking for patterns of thinking, words, and phrases that would identify the coding categories; we met to

compare our observations. We agreed on key words and phrases to be used to code students' responses under specific categories. For example, the words *home* and *pay* were identified in many responses. We conducted word counts and searches on key words. Then, we coded the students' responses into categories using the key words and phrases (Weirsmas, 2000). Finally, we compared our findings and reached consensus on the results. The following sections describe the categories that emerged. Exemplar students' responses are included to illustrate our analysis.

**Financial concerns.** The most frequently mentioned category we identified in students' comments focuses on financial concerns, such as teacher pay. These responses include the word *pay* or



a similar word (*e.g.*, salary, money, loan, debt, afford, etc.). These words are used 80 times throughout all the responses. Of the students who indicate their intentions to leave South Dakota, 57 students or 70% report that poor pay is a factor in their decision and a main reason given by students to relocate to another state. For example, an agriculture education major explains: “the wages are too low and I need enough money to support a family in the future.” The frequency of these comments supports Petrin et. al (2014) findings that achievers consider the labor market conditions; economic factors weigh into their decisions about residency. Another agricultural education major explains her intentions to leave and then return to her home state: “I will take an out-of-state job first because I will be in debt. However, I would like to return to SD when financially sound.” This comment also illustrates Petrin et. al (2014) description of the achievers as Leavers and Stayers. Some responses referencing low teacher salaries were adamant about not teaching in South Dakota. An elementary education major from South Dakota wrote this:

I absolutely do not plan on teaching in SD. How am I supposed to start paying my loans and provide for a family on a starting salary of less than thirty-thousand a year? If you figure that out, then maybe I will reconsider. But until then, I'll be in WY [Wyoming]. I have a four-year degree, so pay me like I do.

Other students' comments include strongly negative emotions—“SD has the worst pay in U.S.!” and “SD teachers' pay sucks. They're a lot less appreciated here.”

We found the specific words *debt* and *loan* in twelve responses, which also relates to financial factors and the ability to retire student loans in a reasonable time after college. As one student said, “the starting pay is low and I have loans that I need to pay off as soon as possible.” The urgency here illustrates a characteristic of our university students who desire to repay student loans. “South Dakota has among the lowest default rates in the country...it tells us something about the integrity of our population and our students.” (Rick, 2011).

**Family concerns.** In two of the previous examples, students included the idea of family as justification for needing a higher wage. The word *family* represents the second most frequently emerging category with 22 references to this in students' comments. Other words coded in this category include *boyfriend*, *fiancé*, *parents*, *wife*, and *husband*.

Unlike the financial category, family as a factor in decision-making occurs in responses from students

who intend to remain in the state, who intend to leave the state, and who express uncertainty. The financial category, however, occurs primarily in the comments of students who intend to leave our state, with the exception of three students who received scholarships such as the Dakota Corps Scholarship. This award grants South Dakota students “financial access to outstanding postsecondary education, while encouraging them to remain here upon graduation working in critical need occupations” (Daugaard, 2015). The encouragement comes in the form of reduced tuition and low-interest loans. For the three students with this scholarship, the decision to stay or leave the state for financial gain is more complex. A biology major explains:

In one of my classes we had to compare living in two different places. We had to compare everything from cost of living and taxes to job salary. I compared living and teaching in Minnesota and South Dakota. When comparing the two states, I came out with more money living in Minnesota and having to pay back my scholarship than working off my scholarship in South Dakota. I love teaching and I love South Dakota, but I wonder if it is worth staying and teaching here.

Comments like this show that students consider their options carefully and thoughtfully. Students recognize the decision includes other factors in addition to a primary concern over teacher salary.

We categorized student responses as “undecided” when they included reasons for leaving and for staying with no clear indication of a choice. Some students recognize conflicting personal values in their decisions. For example, a math major writes about financial concerns and, at the same time, also expresses affection for our state: “I love South Dakota and want to stay close to family and home but I could get paid better and not be in debt as long.” This comment reveals an internal conflict for the student who recognizes family and home as important but also knows that being close to home may require financial sacrifice.

**A sense of place.** Twenty students' comments included the word *home* as a reason for staying in our state, making a sense of place the third most frequently identified category of reasons for leaving or staying. We coded the word *home* as one indication that the student had a sense of place. Other example words that we included in this category are *community*, *rural*, *city*, *South Dakota*, *Minnesota*, *Iowa*, *farm*, *lifestyle*, and *land*.

While recognizing the complexity of the sense of place construct, we have chosen to define this phrase as the reasons why people find a particular

community attractive or not, whether the reasons are social, emotional, financial, political or cultural. An art education major includes the sense of place when writing: “I plan to go to some place where...the place feels like a good home.” A biology major expresses a similar idea by writing, “I would ultimately like to move to MN [Minnesota] some day because I’ve always wanted to live there.” Another biology major agrees and writes, “I prefer the rural lifestyle compared to living in a bigger state/city.”

In twelve students’ responses, the sense of place comments include highly charged and negative emotional reactions such as, “I’m afraid the only jobs in SD are working on the Res [reservation]. And that is terrifying.” Other students expressed their disconnected feelings toward South Dakota in these quotes. “So my wife and I are leaving for a state with more people and an environment that appreciates the arts and adaptation or change.” “There is a huge lack of support for teachers in general, but specifically for the fine arts programs.”

Negative reactions to the political climate of the state show in this history major’s words:

If I do teach in SD it will be in my hometown. Otherwise I live 25 miles from the MN border where I could get paid more. In a recent interview I read that the Governor had about education, he side stepped about every question that had to do with increasing pay. It really made me believe that he should never have been voted in. Teachers are important, and it's about time SD comes to realize this.

This student expresses a concern over respect for the teaching profession. Although this concept was not a category that emerged explicitly in our analysis, we found it to be present in the subtext of responses.

The concern over respect for the profession and education as a whole was also identified by 38% of students’ responses in the unpublished survey data from a nearby liberal arts college (Andrews, 2015). The topic of respect had been provided as a choice in that survey.

Six students demonstrated the value of loyalty in their sense of place comments, including positive affirmations for the state as an excellent location for a teaching career: “SD because I absolutely love it here and I can’t imagine life anywhere else.” “I grew up in SD and love SD. It’s a great state with wonderful, friendly people and good morals.” A speech major identifies a sense of duty toward the state by writing, “If I were to stay, it would largely be because I feel like I have a responsibility to pay South Dakota back for the experiences and opportunities here.”

In addition to these three most frequently identified categories of financial concerns, family, and sense of place, we noticed that students also weigh several other factors in their decision-making. These include the pragmatic issues of teacher licensure requirements in other states and performance opportunities for creative artists.

#### Categories of Reasons for Intentions to Leave and to Stay

We identified major categories of reasons for both students’ intentions to leave and to stay. The figures below illustrate the qualitative data to show the percentage of responses for the Leavers and the Stayers. Figure 4 below illustrates the categories of reasons students identified for intending to leave the state upon their graduation by percentage.

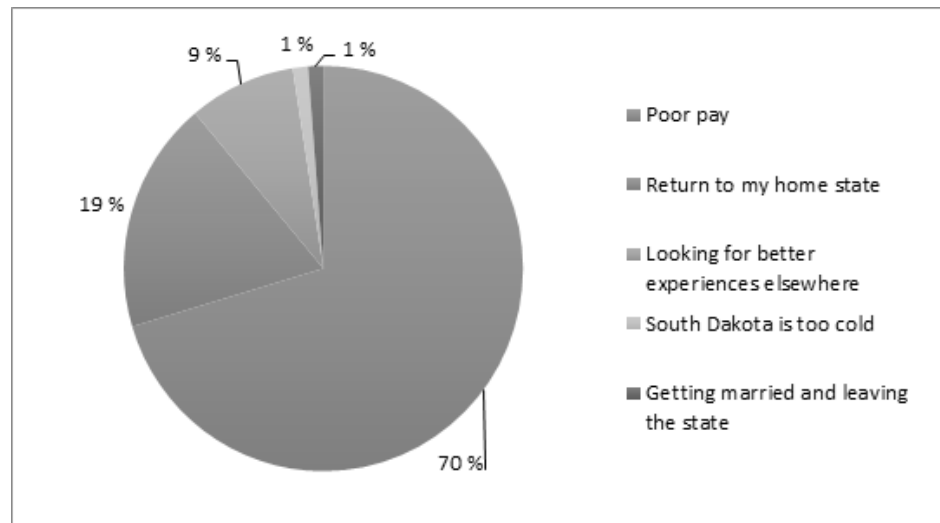


Figure 4. Categories of reasons for intending to leave SD by percentage.

Figure 5 illustrates the categories of reasons students identified for their intention to remain in South

Dakota to teach after graduation.

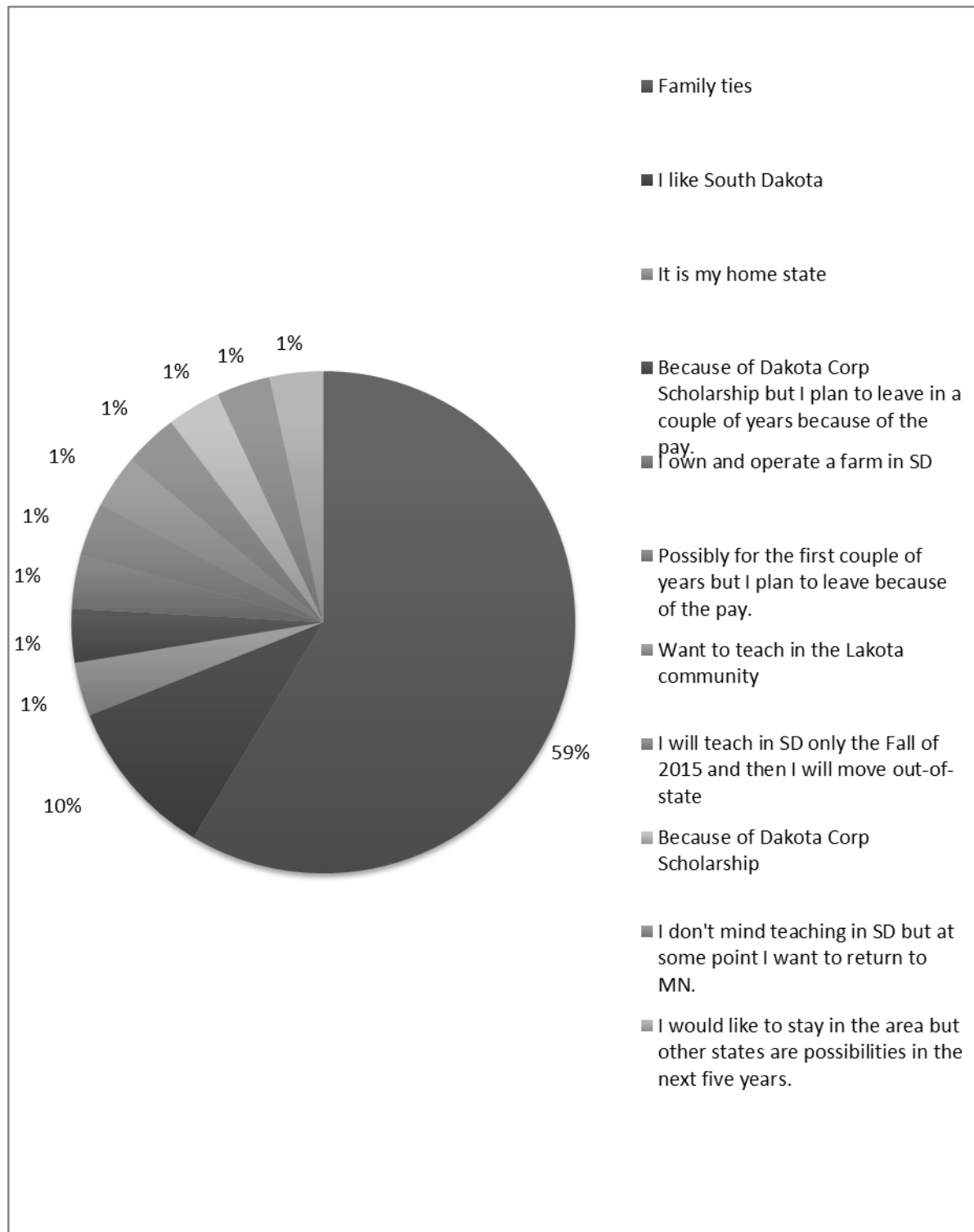


Figure 5. Categories of reasons for intending to stay in SD by percentage.

## Conclusions and Future Study

This study focuses on the outmigration of a specific population, the junior and senior teacher education students at a medium-sized Midwestern university at a time when a state-wide teacher shortage is growing to a crisis. As we look for solutions to the lack of qualified teachers in our state, these teacher education students' perspectives need to be considered. Students' thoughts shed light on the problem because they are the ones we anticipate relieving this shortage in the near future. Whether they stay in the teacher pipeline in South Dakota or whether they decide to contribute their skills and talents to another state depends on our ability to collectively address the concerns they have expressed. These concerns are primarily about financial disparities: South Dakota has the lowest teacher salaries, by a growing margin, in the nation (Bernardo, 2014).

This study gives our future teachers a public voice in expressing their hopes and concerns about teaching in South Dakota. Their comments reveal the internal conflicts they recognize in weighing options for their future. How does one weigh and balance the values of family, home, and community against financial responsibility and future family obligations? Examining the numbers and comments provides valuable insight into the challenges faced by the state educational and legislative officials: how to compete for teacher education graduates and staff state schools with highly qualified teachers. Salary greatly influences students' decisions. Salary can even outweigh familial or geographical ties.

This study contributes to the literature by affirming findings from Petrin et al. (2015) with a specific population, future teachers who are near graduation. Our future graduates prioritize higher salaries as they consider their future employment options. They also take their college debt obligations seriously. In addition, the respondents' comments indicate that students also weigh their priorities and conflicting values of living close to family and friends in their home state of South Dakota and of seeking higher salaries out of state. For teacher education students from out of state, the financial conflict is largely a moot point; they intend to return to their home states for better pay and to be close to family or home communities.

At the national level, our students' concerns reinforce those expressed by others across the country calling for teacher incentives, professional-level pay, market-driven salary, and respect (Greene, 2015). In addition, our local survey demonstrates the need for more teacher education programs to ask their students for their perspectives and to share their students' comments with policy makers. National education leaders have recognized a need to survey teachers (Darling-Hammond, 2012); why shouldn't we do the same for teacher education students?

For future studies, researchers might investigate if gender plays a role in students' decision-making regarding future employment. Researchers might also examine with more specificity the student debt factor. For example, which types of loans, scholarships, or access to financial assistance are more likely to encourage new graduates to stay in South Dakota?

Perhaps the best summary line for this study on the teacher pipeline and teacher shortage in our state comes once more from a student. This future math teacher commented, "If you ask any teacher what the problem is, they will tell you what the problem is. They know what the problem is. The schools know what the problem is. Everyone else is like, 'What's the problem? Why can't we keep teachers? I don't understand.' " The clear voices of teacher education students in the pipeline, as well as others in the educational field, have identified the major solution to the teacher shortage: raise the teacher salary. Our study and others demonstrate that the achievers from rural communities often want to return to their hometowns. Considering our survey results, we conclude that the insufficient and declining teacher salaries in our state has reached the tipping point, a "critical point in a...system beyond which a significant and often unstoppable effect takes place" ("Tipping Point," 2015). The steep decline in the quality of rural education in our state, as documented by the number of qualified teachers, troubles us deeply as teacher educators (Anderson, 2015). As described by South Dakota administrators, the "crisis stage" is here now (as cited in ASBSD, 2014, para. 3, para. 7).

For our part, as teacher educators, we will help our students know that their voices are important, that teacher perspectives are critical for real change to occur, and that, at times, we need to find ways to make sure they are heard.

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