Teacher shortages and cultural mismatch: District and university collaboration for recruiting

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Abstract

U.S. schools are facing chronic shortages of qualified teachers, resulting in the hiring of unqualified teachers who are disproportionately assigned to disadvantaged students. Further, changing demographics are resulting in racial/ethnic and cultural mismatch between teachers and students they serve, causing additional educational problems. This solution to the shortage and mismatch lies in attracting more students to teacher preparation programs, especially culturally and racially/ethnically diverse students. This study describes collaboration between a university and school districts to offer dual enrollment courses and a summer camp for high school students considering teaching careers. The researchers examined the effect of camp participation on perceived readiness to enroll in college and teach a class in a public school, as well as participants' likelihood of entering a teacher preparation program. Study results suggest early exposure to teaching experiences positively influence high school students' perceptions of teaching as a career. Impact on participants and implications for teacher recruitment are discussed.

Key words: *teacher shortage, recruitment, cultural mismatch, collaboration, teacher education*

Introduction

It takes a lot of teachers to educate America's youth. The National Center for Educational Statistics (NCES) reported that the number of public school teachers employed in the United States exceeded 3.5 million for the first time in 2010 and that the size of the teaching force will continue to grow through 2025, the last year for which data were projected (Garcia & Weiss, 2019; Institute of Educational Sciences, 2015). The number of qualified personnel does not equal the number of available jobs, however, so public schools across the United States are facing shortages of teachers. This is reflected in a 2015 report, (Malkus, Hoyer, & Sparks, 2015) that 68% of schools in the United States had at least one teaching vacancy during the 2011 – 2012 academic year. Moreover, the number of teaching vacancies is likely to continue to increase as school populations grow and current teachers leave the field due to retirement or other reasons.

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Sutcher, Darling-Hammond, and Carver-Thomas (2016) note that the demand for new teachers is steadily increasing; they project a plateau at an annual level of about 300,000 new teachers needed per year by the 2017 – 2018 academic year. They conclude that "based on the evidence available, the emerging teacher shortage appears to be driven by four main factors:

    1. Decline in teacher preparation enrollments,

    2. An effort to return to pre-recession course offerings and class sizes,

    3. Increasing student enrollment, and

    4. High teacher attrition (Sutcher et al., 2016, p.37.).

Problems arising from the shortage of teachers are compounded because unqualified teachers are hired when too few qualified personnel are available to staff classrooms. These less qualified teachers are not assigned randomly, nor are they assigned to those students best able to learn independently and who have the most resources for learning at home. Instead, disadvantaged students are most likely to be affected. Schools with the fewest resources tend to have the least qualified teachers, and in 2013-2014 the nation's high-minority schools had four times as many uncertified teachers as low-minority schools. What's more, teachers of disadvantaged youth have less career stability and the turnover rate for teachers in Title I schools is nearly 50% greater than that of teachers in non-Title I schools (Sutcher et al., 2016). Further, minority students have few racially/ethnically/culturally relevant role models teaching in their classrooms. According to Boser (2014), while students of color comprise nearly 50% of our public school population, 82% of teachers are white.

The shortage of qualified teachers in specific instructional fields is also especially severe (Arslan & Yigit, 2016; Cowan, Goldhaber, Hayes, & Theobold, 2016). The field of special education, for example, has a long history of teacher shortages. Boe (2006) described chronic and increasing shortages of certified special education teachers in an investigation spanning the 1987/1988 to 2003/2004 school years. Moreover, while Dewey et al. (2017) cite fewer students being identified with disabilities and increasing class sizes as reasons for a decrease in hiring of special education teachers between 2005-2012, Zhang and Zeller (2016) assert that the demand for special education teachers remains especially high due to high levels of employee turnover.

Many school districts also experience chronic shortages of mathematics and science teachers (Feng & Sass, 2017). Low retention rates are not the only source of teacher shortages, however. According to the South Carolina Center for Education Recruitment, Retention, and

Advancement (CERRA), the state lost 9% of its teaching force in 2017. Further, CERRA reports that the number of students graduating with baccalaureate degrees who are also eligible for teaching certification has dropped 30% in the past four years, thus reducing the pool of applicants from which school districts can hire (Gilreath, 2017). The latest demographics indicate that diversity among schools' teacher and administration populations is not keeping pace with the diversity among student populations (Leavell, 2009). Indeed, compared with their peers, teachers of color and teachers from diverse contexts are employed in public education and pursue higher education at far lower rates (Bailey & Dynarski, 2011; Stephens, Townsend, & Dittmann, 2019). In addition, there is limited research on teacher shortage, in this vein, the purpose of this study is to examine the effects collaboration between a mid-sized public university and school districts to offer dual enrollment courses and a summer camp for high school students considering teaching careers in the southwest Florida. The research questions guiding this study are as follows:

1. How does participation in EDUCamp impact high school students' perceptions of their preparedness to enroll in college?
2. How does participation in EDUCamp influence high school students' perceptions of their preparedness to teach a class in a public school?
3. How does participation in EDUCamp influence high school students' likelihood of attending college to become a teacher?

Review of the Literature

Cultural Mismatch

Not only is there a nationwide shortage of teachers, there is also a growing gap in the racial, cultural, and experiential match between teachers and students. The demographic makeup of public schools has changed, and in 2014 minority students made up most of the student body in states including California, Texas, New York, and Florida (Aydin, Ozfidan, & Carothers, 2017) though the teaching force continued to be overwhelmingly White (Lynskey, 2015). Further, a recent study found that children of teachers are more than twice as likely as others to enter the teaching profession (Gershenson & Jacinto, 2019), which indicates that the racial/cultural mismatch between teachers and students is unlikely to improve unless more people of color are brought into the teaching profession. Specifically, the study found that sons

and daughters of white teachers, and daughters of black teachers were twice as likely as others to enter teaching as a profession, and that this propensity was even more pronounced among the daughters of Hispanic mothers (Gershenson & Jacinto, 2019). As such, increasing the number of black and Hispanic women in teacher preparation programs is likely to increase the future supply of black and Hispanic female teachers and male Hispanic teachers. The sons of black mothers, however, didn't follow in their mother's occupational footsteps (Gershenson & Jacinto, 2019), resulting in the need for another approach to increasing the number of black males in the teaching force.

For the past several decades, researchers have reported that school districts nationwide faced serious teacher shortages that left many schools scrambling to find qualified teachers (Papay, Bacher-Hicks, Page, & Marinell, 2018). In addition, Leavell (2009) stated that some first-year teachers report not being prepared to work with the diverse populations found in the schools. According to Papay, Bacher-Hicks, Page, and Marinell (2018), "today, halfway through the academic year, many students are being taught by a temporary teacher because their schools could not fill positions in time" (para 1). Strauss (2017) asserted that the problem has grown more acute in recent years due to poor morale over low pay, unfair evaluation methods, assaults on due-process rights, high-stakes testing requirements, insufficient resources, and other issues. Moreover, nearly 8% of the teaching force leaves every year, the majority before retirement age (Sutcher et al., 2016). This is especially problematic because studies report many pre-service teachers need significant training for the challenging tasks of filling knowledge gaps, questioning dominant assumptions, and creating space for different opinions (Maxwell, 2014; Sleeter, Neal, & Kumashiro, 2014; Subedi, 2006; Woofter, 2019; Yigit & Tatch, 2017), and Ng (2003) argued that high quality teachers improve student learning and performance. It is unlikely that temporary teachers have received adequate preparation to meet the needs of the diverse students they encounter.

At the same time public schools have faced serious shortages of teachers, shortages of students in teacher education programs has also become a serious problem. According to the Learning Policy Institute (2016), enrollment in teacher education programs dropped from 691,000 to 451,000, a 35 percent reduction, between 2009 and 2014, the last year for which data are available. Taking a longer-range view of the issue, the U.S. Census Bureau (2016) reported that education was the most popular major for college students in 1975 and was selected by 22%

of students. The percentage of students selecting this major has declined sharply, however, and in 2015 fewer than 10% of those pursuing higher education majored in education. In addition, Passy (2018) emphasized that the percentage of female college students selecting education as a major has significantly declined over the past 40 years, shrinking from 32% to 11%, and as interest in education degrees dwindled more students pursued course work in sciences, fine arts, communications, and computer science. In 2017 the U.S. Department of Education reported that 37% of education majors changed majors, reportedly due to low salary and micromanagement in the era of accountability.

American higher education institutions also face a shortage of students of color and those representing ethnically diverse populations. For instance, the U.S. Department of Education (2016) reported that most students in public schools are students of color while 82% of teachers are white. Research shows that diversity in schools, including racial diversity among teachers, can provide significant benefits to students (Kaya & Aydin, 2014; Johnson & Hinton, 2019; Martinez & Tadeu, 2018; Wu & Ida, 2018). While students of color are expected to make up 56 percent of the student population by 2024, the elementary and secondary educator workforce remains overwhelmingly white. Still, improving teacher diversity helps all students in several ways. Teachers of color are positive role models for all students and reduce negative stereotypes, better preparing students to live and work in a multiracial society (Faltis, 2014; James, 2019; U.S. Department of Education, 2016). A more diverse teacher workforce can also supplement training in the culturally sensitive teaching practices most effective with today's student populations (The State of Racial Diversity in the Educator Workforce, 2016). In addition, Partelow, Brown, and Johnson (2014) emphasized that teachers of color tend to have more positive perceptions of students of color—both academically and behaviorally—than other teachers and a recent study found that African American teachers are less likely than white teachers to perceive African American students' behavior as disruptive (Startz, 2016).

Moreover, the lack of diversity in the teaching profession, combined with teachers' differing interpretations of student ability and behavior, may partially explain why students of color drop out of school (Gershenson, Holt, & Papageorge, 2015; Karakus, 2018), and students who drop out of school do not enter college or the teaching profession. Studies have raised concerns about the difficulties of teaching in predominantly black and Latino, low-income communities including inadequate training, poor classroom conditions, and inability to maintain

work-life balance (Blanchard, 2013; Barkhorn, 2013; Boutelier, 2019; Deniz & Ersoy, 2015; Neason, 2014; Riggs, 2013). In addition, Ingersoll (2005) found that teachers of color left the profession 24% more often than white teachers. According to the National Education Association, "the declining numbers of Black and Hispanic students majoring in education is steeper than the overall decline in education majors" and "minority teachers leave teaching at higher rates than white teachers do" (Machado, 2013, para 2).

A study of 127 biology students at Mississippi State Valley University, the nation's youngest Historically Black College and University (HBCU), reported college enrollment by race and gender and proposed reasons for the underrepresentation of Black males among the college population (Dunn, 1988). It found that barriers to Black students attending college include economic disadvantages that result in inadequate preparation for college studies, low levels of personal motivation, and inadequate counselling. It also indicated that most believed Black males avoided college because of a desire to achieve financial independence immediately after high school, with lack of motivation as the second most frequently given explanation (Dunn, 1988). Further, in a study by Wood (2014) a large portion of Black male participants indicated that academic disengagement negatively affected their college achievement.

These are not the only explanations suggested for diverse students' failure to enroll or succeed in college. For example, Matute-Bianchi (1986) interviewed 35 students of Mexican ancestry over 2 years to assess their aspirations and perceptions of their adult future, their understanding of strategies to achieve adult success, their definitions of adult success and failure, and their perceptions of the value of schooling in achieving their goals. The results showed that students of Mexican ancestry had greater problems negotiating ethnicity because of the broad range of social divisions among the population as well as within-group cultural differences and differences in ability or willingness to adapt to the mainstream school environment. These and other factors that contribute to the achievement gap for diverse students reduce their ability to enter college, which also results in their underrepresentation in teacher preparation programs.

Solutions to the shortage of teachers and the cultural/racial/ethnic mismatch of teachers and students must be found. A logical starting place for this solution is through recruitment of students to teacher preparation programs. This study describes a university's EDUCamp, an ongoing project to recruit high school students, including those representing racial/ethnic and cultural minorities, to the university's College of Education and careers as teachers. How the

camp was formed and the activities it entails are described, and data are presented to examine the effect of university summer teaching camps on recruitment to a teacher preparation program.

Teacher Recruitment

University teacher education preparation programs and their K-12 partners have used several methods to address teacher shortages and recruit students into the field of education, especially minority student teacher candidates (Andrews, 2017). Two recruitment methods are discussed: dual enrollment college courses formed and housed in local high schools, and education camps run by universities for high school students aspiring to become teachers. This study describes initiation of dual-enrollment courses in district high schools and analyzes survey data from a summer education camp sponsored by a college of education with six teacher education preparation programs.

Summer programs designed to recruit future teachers have been sponsored by colleges or schools of education for nearly 30 years. Referred to as summer academies, camps, or institutes, these programs are designed to recruit future teachers while also helping diversify the pool of those entering the teaching profession. Inspired by the Phi Delta Kappa Summer Camp/Institute for Prospective Teachers, in 1989 Emporia State University's Teacher College began sponsoring a state-wide *Kansas Future Teacher Academy* for high school students aspiring to become teachers (Caswell, 2018; Harris & Azwell, 1992). Emporia State University indicated that the Future Teacher Academy "has provided select students with the opportunity to learn more about the challenges and rewards of teaching and has become recognized as an established and highly respected training opportunity for students throughout the state of Kansas" (2018, p. 1). Like other summer programs, the Kansas Future Teacher Academy provides a "variety of activities that will help them to better understand what teachers do and to determine whether or not they have the potential for meeting this professional challenge" (2018, p. 1). In its almost 30-year existence, the Kansas Future Teacher Academy has graduated over 1,200 students. Using Emporia State University's program as a model, the Arkansas State University (ASU) College of Education also started a summer academy for future teachers with the intent to "recruit some of the best and brightest high school students into the teacher education program at ASU" (Holifield, Bradley, Strickland & Carroll, 1994, p 343). In addition, ASU saw a need to diversify its future teacher applicant pool, at the time recognizing that only ten percent of their current students were from a minority group (Holifield et al., 1994).

"Grow your own" programs are now receiving recognition as a method of addressing the racial and ethnic gaps between teachers and students (Gist, 2019). Defined as " highly collaborative, community-rooted, intensive supports for recruiting, preparing, placing, and retaining diverse classroom teachers" (Rogers-Ard, Knaus, Bianco, Brandehoff, & Gist, 2019, p. 27), these types of programs, especially education/teacher academies, have been used to help build future teacher pipelines in districts across the United States and are used to recruit minorities into the teaching profession. Irvine and Fenwick (2011) describe investment in recruitment efforts at high schools with pre-collegiate programming such as education academies and dual enrollment as important in attracting more minority students into teaching. These education/teacher academies within high school settings allow students to take education related courses, complete internships in local schools, and connect to university teacher preparation programs. In 2016, Florida had three such programs in Pasco, Pinellas and St. Johns County school districts. Pinellas County school district began its teacher academy in 2010 and now enrolls over 320 students in the program (Solochek, 2016). Other states including Ohio, Colorado, Michigan, Delaware, Rhode Island, and Wisconsin also have education/teacher academies. (Beck, 2015; Borg, 2001; Holbrook, 2009; Quealy, 2018; Will, 2018). These types of programs have also emerged as an initiative by school districts in Southwest Florida.

EDUCamp

Summer programs like the ones at Emporia State University and Arkansas State University were designed to recruit and diversify the pool of teacher candidates that will meet the future needs of school districts across the country. Their example led to the 2017 establishment of the university's EDUCamp, a summer camp for future teachers in Southwest Florida. The camp was created by two faculty in the College of Education who worked extensively with five local partner school districts. While similar programs have been used to recruit future teachers, this project used existing grant and University funds, leveraged existing partnerships with five local school districts, and received partial district sponsorship to fund student participation in the camp. As such, the university and districts partnered to situate the camp within the districts' "grow your own" efforts to recruit teachers through high school teaching academies. This resulted in district support for advertising the camp, providing student scholarships to participate in the camp, and local teachers supporting activities during the camp. Researchers cite this type of collaboration between colleges of education and districts as crucial

to how teacher education programs evolve to support the changing face of future teacher recruitment (Duffy, Wickersham-Fish, Rademaker, & Wetzler, 2018; Stein & Stein, 2016). In its first year, the university's EDUCamp attracted 27 future teachers from seven area high schools in three districts. The initial success led to expansion of the camp in 2018. EDUCamp 2018 served as the source of data for this study.

Method

Participant Sample

Participants in EDUCamp 2018 attended voluntarily and consisted of three males and 36 females drawn from Collier, Glades, and Lee counties in Southwest Florida, though one female withdrew after the second day of camp. Purposive sampling was used to select participants for this study who enrolled in EDUCamp. All camp participants took the initial survey and all in attendance on the final day of camp took the closing survey. At the time of the pretest, one participant was rising to the ninth grade, 11 were rising to tenth grade, 11 were rising to eleventh grade, 15 were rising to twelfth grade, and one was starting college in fall 2018. Though data on racial/ethnic background were not collected, over 50% over students identified as racial/ethnic minorities. Each of these participants also took the post test, except for four the twelfth-grade students, including the female who withdrew.

Data Collection Tools
Schedule

EDUCamp 2018 was held during the third week of June, with the participants arriving at 7:00 a.m. and being escorted to their rooms in the residence halls to store their belongings. By 8:30 a.m. the participants had reassembled for ice-breaking activities and to take the pre-survey. The survey was administered in the university library using Checkbox, a widely available internet survey tool.

Participants engaged in a variety of activities for the rest of the week. Activities during the first day were primarily designed to orient participants to the camp and consisted of a campus tour, small group discussions (i.e., what makes a good teacher?), and planning, followed by recreational activities in the evening. Tuesday's curriculum focused on special education, integration of art and STEAM education, and included sessions conducted by university and

public school faculty, work with drones, and a campus Environmental Wet Walk before concluding with pizza and recreation at the residence halls' swimming pool. Wednesday morning consisted of making final preparations for a visit by a group of children from Grace Place for Children and Families, a community center in Naples, Florida whose mission is to provide pathways out of poverty by educating children and families. This was followed by three hours of hands-on activities with children from Grace Place, debriefing, planning for the next day's visit to the Grace Place campus, and evening recreation. The rest of the day consisted of sessions related to various aspects of teaching, followed by choices of live music and swimming at the pool or movies for evening recreation. Participants also spent Thursday morning making final preparations for another visit by an older group of children from Grace Place, followed again by three hours of hands-on activities with the children from Grace Place, debriefing, planning for the next day's visit to the Grace Place campus, and evening recreation. Finally, Friday consisted of participant teaching presentations on the Grace Place campus, followed by a session to prepare participants for the American College Testing (ACT) and a debriefing session. The camp closed with participants taking a post-survey to measure the camp's effectiveness.

Instrumentation

The survey given at the beginning of EDUCamp consisted of eight questions. The first two questions asked about participant perceptions of their preparedness to teach a lesson and enroll in college; these questions were answered on a five-point Likert-type scale. The third and fourth questions were rated on a four-point Likert-type scale and asked participants to rate their knowledge of the university's College of Education and the likelihood of their enrolling in the COE followed by a follow-up question to examine their reasons for or against enrolling in the university. The final three questions were open-ended and asked about participants knowledge and expectations about teaching and EDUCamp,

Participants were surveyed again at the end of the camp. The first two questions were the same as on the first survey, and the third question was an open-ended question about participants' future career and educational plans. The survey concluded with seven open-ended questions about participants' perceptions of EDUCamp, how EDUCamp could be improved, and what participants would tell their peers about the experience.

Data Analysis

Data were analyzed across two dimensions. First, quantitative data were coded, analyzed, and computed in Microsoft Excel. Second, open-ended questions and solicited and unsolicited comments were read and synthesized and paraphrased within content analysis (Prater & Sileo, 2002). A content analysis was used for open-ended questions, which was analytically examining narrative survey materials from responses by breaking the text into relatively small units of content and submitting them to descriptive treatment (Sparker, 2005). It should be noted that content analysis approaches allow for open-ended questions. By using content analysis, it is possible to analyze data qualitatively and at the same time quantify the data (Gbrich, 2007). Content analysis also uses a "descriptive approach in both coding of the data and its interpretation of quantitative counts of the codes" (Morgan, 1993; Vaismoradi, Turunen & Bondas, 2013, p. 400). Research results, compiled using the analysis and interpretations of the data, were prepared by three different researchers for 'member checks' to establish credibility, reliability, and confirmability (Lincoln & Guba 1985), and to assess and strengthen the accuracy of the data.

Findings

Recruitment of prospective teachers to the university's College of Education was one of the main goals of EDUCamp 2018, so surveys were administered to participants at the beginning and end of the camp to determine effectiveness. Because many of the participants would be first-generation college students, the program devoted time to teaching how to apply, enroll, and pay for college. When asked how prepared they were to enroll in college on the first day of the program, 40% felt prepared, very prepared, or could teach others how to enroll in college. Asked the same question on the final day of the program, 81% of participants indicated they felt prepared, very prepared, or could teach others how to enroll in college.

Another major goal of EDUCamp was to introduce participants to the career of teaching. When asked how prepared they felt to teach a lesson before coming to EDUCamp, 39% said they felt prepared, very prepared, or could teach others how to teach. When asked the same question at the end of camp, 95% of participants said they felt prepared, very prepared, or could teach others how to teach a lesson.

Finally, to measure how well the camp achieved its goal of recruiting students to become teachers, participants were asked how likely they were to enroll at the university to become a teacher. At the beginning of the program 54% of participants indicated they were either likely,

very likely, or that the university was their #1 choice of a place to study to become a teacher. When the participants who selected "somewhat likely" were included, the percentage of participants responding positively increased to over 87%. Participants were also asked about their likelihood of enrolling at the university to become a teacher at the end of the program. 63% indicated they were either likely, very likely, or that the university was their #1 choice for study to become a future teacher. When the "somewhat likely" category was included the percentage increased to 95%.

Because the decision to enroll in college and become a teacher is influenced by many complicated factors, participants were asked to explain why they would or wouldn't enroll at the university to prepare for a career as a teacher on each the first and last days of the program. While responses were varied on the first day, several participants focused on the strength of the College of Education at the university. "I heard the university has a great teaching program" and "I think it's a great way to learn about becoming a teacher" are examples of the responses. However, participants who didn't respond positively to the likelihood of enrolling at the university for teacher preparation didn't focus on program quality but instead indicated they weren't yet sure what they wanted as a career or that they were considering other institutions. One participant said, "I'm debating on what I still want to do" and another indicated "I am young I wanna see what else there is to pursue." A few described teaching as a backup choice to their first career choice. "Thinking of going into the medical field," "I want to major in Criminal Justice," and "I would like to become a teacher if my other plans don't work out" were example responses.

When asked the same question at the end of the program, participants indicated increased intensity in their desire to teach, calling it a "passion" and responding, "I loved teaching this week." The number of participants who viewed teaching as a viable career option also increased. "I want to think more about what I want to do, but being a teacher is a choice" or "the experience I have gotten has been amazing and has opened my eyes to new things" were example responses. Participants were also asked how attending the camp changed their view of teaching as a profession. Several indicated it was "harder" than they imagined, "there is a lot more than you see," or "how hard things can get." One participant connected the difficulties teachers face and their experience, "that it's not easy as it seems you must have passion to continue teaching for a long time." For those participants interested in becoming teachers, many indicated the camp

experience helped solidify their choice. One said, "I've always wanted to be a teacher and this made me 100% sure" while others stated that it "made me realize that it is truly my passion" and "it showed me that I could really make a difference to someone." Also, some participants who had not considered a career in teaching prior to camp re-evaluated their options. Sample responses included, "it made me get closer to teaching," "it makes me think that teaching isn't that bad after all," and "it's one of the top five careers I want to do. Before it was not in my top five." As stated by one participant, "At first being a teacher was not in my mind but this week this camp opened my eyes as to what I want to do in the future and being a teacher is for sure something I want to do," and others indicated that they would consider teaching as a short-term profession.

Many of the EDUCamp participants were also involved in their high school's education/teaching academy and/or taking dual enrollment education courses for college credit. Because of this, the survey at the end of camp asked what they would share with fellow students about becoming a teacher. Many described their intentions to bring back lesson plans, teaching techniques, tips, or strategies, and advice to their fellow students. One participant said she would take back "everything that I learned this week and I hope to learn more." More important to the goals of EDUCamp, many also cited the intention to share encouragement and support for becoming a teacher. One participant said teaching "…was wonderful" and another advised peers "to be passionate and that teaching is great." Some indicated they were taking back "a new view on teaching" or "more patience and experience," and one participant summed up their experience by responding "…it's the best job out there!" Finally, a participant offered a quote that is likely to encourage education camp organizers: "That it's so worth coming even if you want to be something else because you might change your mind."

Discussion, Conclusion, and Implications

This paper examined the effects of collaboration between a mid-sized public university in Southwest Florida and several regional school districts to recruit students into university teacher preparation programs. One goal of the collaboration was to create a larger and more diverse pool of qualified teachers from which the districts can hire. While the collaboration is still in its early stages, trends emerged that may offer guidance regarding how to solve the nation's shortage of teachers while also ensuring that the teaching force is culturally, racially, and ethnically relevant to the students it serves.

The first key observation is that though it is still in its early stages, the collaboration appears to be expanding in both its size and its effects. The collaboration started with discussions between the College of Education and two local school districts regarding how the development of dual-enrollment courses could impact teacher recruitment. As these discussions continued, talk of starting a summer education/teaching camp emerged, resulting in 27 high school students with an interest in teaching attending a weeklong camp on the university campus during the summer of 2017. These initial camp participants were drawn from seven area high schools located in three school districts located in Southwest Florida.

During the 2017 – 2018 academic year, the first dual enrollment course was co-taught by university and school district faculty and held on a public high school campus. This course was attended by 12 students with an interest in teaching, and five of the eight seniors who took the class have enrolled in the university for the fall 2018 semester. Additionally, 16 students are projected to take another dual-enrollment course, housed on a high school campus in a different district, starting in fall of 2018. Dual enrollment courses are also slated to be offered in both the original school and in another high school in the third district during the spring 2019 semester. As a result, what began as discussions of offering a dual enrollment course has resulted in projected expansion of these courses to three school districts with student participation expected to increase significantly during the second year of practice. Arkansas State University had a similar result in their summer academy and perceived the effort as important in strengthening the partnership between the College of Education and school districts (Holifield, Bradley, Strickland, & Carroll, 1994).

The growth of EDUCamp in its first two years is also notable. The camp hosted 27 prospective teachers in 2017; this number grew to 39 in 2018, a nearly 50% increase in participants. Further, the sophistication of the camp improved, with the addition of a fifth day of instruction, hosting more local students from grades 3-8 on campus, and incorporating an instructional theme throughout the entire week. Additionally, during the second year data were collected from participants to gauge their perceptions of the camp and how it could be improved as well as to measure possible changes in their attitudes toward employment in the teaching profession.

While the increase in the number of participants in EDUCamp is important, the camp's apparent influence on participants' perceptions of teaching and desire to enter the teaching

profession may be even more remarkable. Data collected during pre- and post-camp surveys during EDUCamp 2018 revealed changes in participants' perceptions of teaching as a profession, with responses indicating that it was more challenging and required higher levels of skill than previously imagined. Still, despite the perceived increased difficulty of the work, a post-camp increase was found in the number of participants with a desire to become teachers, and in those interested in teaching as a back-up or temporary career. Further, participant responses to open-ended questions revealed increased enthusiasm among those who wanted to become teachers prior to entering the camp. Similarly, one of the stated missions and results of the summer academy at Arkansas State University was to attract a more diverse pool of teacher candidates and show the intrinsic and extrinsic rewards for teachers (Holifield, Bradley, Strickland, & Carroll, 1994).

Several other findings can also be drawn from the data. First, EDUCamp participants' perceived confidence in their ability to enroll in college increased during this experience. This is significant because a high percentage of EDUCamp participants identified as racial/ethnic minorities, a demographic in short supply in the current teaching force, and the ability to enroll in college removes one barrier that prevents them from entering the profession. Second, the quality of the teaching force, as well as its quantity, is critical to the success of the nation's schools. EDUCamp participants, despite noting that the profession was more challenging that they previously thought, reported increased perceived ability to teach lessons. Arkansas State University reported a similar goal with their summer academy; they also wanted participants "to become acquainted with the characteristics of effective teachers" (Holifield, Bradley, Strickland, & Carroll, 1994, p. 344). Both confidence and competence are critical to a teacher's success, and this measure indicates that participants now have the needed confidence and if their perceptions are correct, also have higher levels of competence.

Another outcome of the camp, though not measured, is the participants' increase in cultural awareness and sensitivity. Because this was the first experience being away from home for many of the campers and because they came from diverse districts serving rural, suburban, and urban populations and vastly different socio/economic strata, participants were exposed to previously unexperienced ways of thinking and behaving. Unscripted interactions in both classroom and social situations introduced participants to activities, conversational styles, and manner of dress unseen in their home environments. An individual's recognition that his concept

of "normal" is not shared by all is likely to result in teachers who are more sensitive to the differences brought to school by their students. Because of this potential benefit, future EDUcamps should be intentional in planning for intercultural exchanges between participants representing different backgrounds. There are many ways that this could be easily accomplished, including but not limited to:

- Participant discussions at the beginning of the camp could be expanded to included topics such as participants' perceptions of how they are alike and different from other campers and how they expect to be alike and different from their future students. This discussion could be expanded to topics that assist participants in identifying their own biases as well as the biases others may hold toward them.

- Thoughtful assignment of roommates so that individuals are exposed to others from vastly different backgrounds;

- Interspersing team-building and diversity-awareness activities throughout the calendar of events, including activities that require participants to identify "us and them" thinking and explore possibilities for differing constituencies to work together to create school cultures that are adaptable and reflect changing student and teacher populations. Internet searches for "diversity activities" and similar terms retrieve a broad variety of approaches that can be used to assist participants in examining their own thinking and biases as well as interacting appropriately when the biases of others are recognized.

- The school and its teachers, administrators, and staff members must intentionally facilitate the collaboration process not only making students feel a part of the school, but also by making the school become a part of the students.

Finally, one purpose of EDUCamp was to increase enrollment in the university's College of Education, ultimately resulting in an increase in the pool of qualified teachers available to local school districts. Though empirical evidence is not yet available, survey responses indicate that this purpose was achieved. No participant cited a lowered opinion of either the College of Education or the teaching profession because of their experience. Rather, participants described improved opinions of both the College of Education and the profession and indicated that they would report their thoughts to their peers on their high school campuses. In this context, this study recommends that future studies of effective recruiting approaches be based on solid experimental design to help solve the shortage of demographically representative teachers.

Several limitations in the present study unveil a need to interpret the findings with caution while a long-term study is designed. First, for many of the participants, EDUCamp was their first opportunity to spend time away from home surrounded by peers and, as a 20-year old institution, the university has a beautiful, modern appearance that offers desirable recreational opportunities for residents. Participants' perceptions of teaching as a profession and the university as an institution for career preparation may have been influenced by the novelty and excitement of the experience, and the long-term impact of the experience on participants' professional goals cannot yet be ascertained.

Additionally, because the camp was not designed to function as a research project, data were not collected that may have been useful in demonstrating how successfully the camp met its objectives. Survey data that were collected were analyzed; however, more thought should be given to the specific types of data that will be collected if future camps are to be considered a valid source of information on their value for recruiting students and teachers.

The nation's schools face chronic shortages of teachers, and the effect of these shortages disproportionately affect disadvantaged students. Further, as the country's racial and ethnic demographics change there is an increasing mismatch between the experiences of teachers and the students they teach. These different experiential backgrounds result in numerous problems including teachers misunderstanding students, students misunderstanding teachers, and students being undermotivated due to a lack of role models that they perceive as like themselves.

One approach to increasing the supply of teachers, and especially teachers who represent the diverse backgrounds of their students, is to increase interest in prospective teachers before they have finalized their career choices. As modeled by this study, this can be done through collaborative efforts between school districts and universities using approaches including dual enrollment courses and summer academies on university campuses. Márque, Peña, Jones, Orange, and Simieou (2018) indicated that to increase the opportunity to recruit diverse students into the teaching profession, it is important that these efforts be undertaken early, before students at the low end of the achievement gap are academically disqualified from gaining admission to teacher preparation programs.

The present study illustrated a collaboration between school districts and a state university teacher preparation program that was started with a long-term goal of increasing the number and diversity of qualified candidates to fill local teaching vacancies. Small scale

discussions initially led to establishment of a dual-enrollment course and, encouraged by early signs of success, led to plans for similar courses in two additional school districts and the staging of two summer camps to give prospective teachers an in-depth introduction to the career.

In their first two years, enrollment in both the dual enrollment classes and EDUCamp have increased, and early signs are that the stated goals of increasing enrollment in a teacher preparation program and increasing the supply of home-grown teaches are being achieved. Feedback from camp participants, likewise, has been encouraging and provided guidance for collaborators who continue work to expand and improve EDUCamp in the summers ahead. Further, camp participants indicated their intention to share their enthusiasm with peers when they return to their high schools, providing the benefit of word-of-mouth advertising for the teaching profession.

Additional room exists for improvement in the recruiting of teachers whose cultural and ethnic backgrounds are representative of the public schools they attended. For example, guidance counselors can be encouraged to discuss the possibility of teaching as a short-term profession. Further, high school students who are unsure about their career choices and those for whom teaching is not the first career choice can be educated about the benefits of earning a minor in teaching, assuring that they graduate from college with skills needed for employment. The need for teachers is great and the potential supply of teachers is large.

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