Abstract
This poster aims at identifying the differing advantages and disadvantages to school districts in northwest Wisconsin in relation to secondary institutions and their associated college readiness. Additionally, it looks at retention variability of first year students at the University of Wisconsin - Eau Claire. Using data provided by the Wisconsin Department of Public Instruction and the University of Wisconsin - Eau Claire, the study explores the factors that influence college readiness and retention including secondary institution rating, percent economically disadvantaged, and enrollment size. Our assumption was to find a relationship between our selected variables and student success in their first year at UWEC.

Background
Retention at a university is often one of the most important ways to measure success of the institution. Today, identifying groups of disadvantage at the college level is essential to retaining more students. When these groups are identified, universities can then put in place support systems to ensure student success. This study explores factors necessary to answer more specific questions about why students either struggle their first year or decide to leave the university altogether. Still, by identifying spatial patterns of these districts, a statistical explanation could not be determined.

Methods
The dataset was taken from the Wisconsin Department of Public Instruction (DPI) using their Report Card summaries of each district. The Report Card collects data on each district in the state and gathers a comprehensive list of attributes ranging from percent of racial diversity, to state testing scores. Based on this data, discussions from education professionals, and Media reports, three variables were chosen: Overall Accountability Score, Percent Economically Disadvantaged, and enrollment size. Using data provided by the Wisconsin Department of Public Instruction (DPI) they created a GIS to give the location and more specifically what school district they resided in. Students were spatially aggregated into school districts and subsequent DPI data was joined to these districts allowing for the multiple regression analyses to be completed.

Acknowledgments
Thanks to the Office of Research and Sponsored Programs for funding this research. Special thanks to Dr. Jill Prushiek, Associate Dean of College of Education and Human Sciences and Dr. Katie Weichelt, First Year Experience.

Results and Conclusions
The changes over time in the chosen categories proved to be most interesting. As shown in Figure 1, the makeup of northwestern Wisconsin is predominately rural. When compared to Figures 2 and 3 there is little to no visual patterns that coincide with the classification of each district. Figure 2 explores how each district rating had changed from 2012-13 to 2016-17. The changes presented do not suggest a strong movement in either direction. The same lack of direction is prominent in Figure 3 regarding college readiness scores, but interestingly, when districts had a negative change, they were more likely to be severe, in the -10 - (-) 5% category. In fact, the ratio of the -10 - (-) 5% category to the -4.99 - 0% category was 4 to 1. Though, when identifying first year student performance from these districts, a statistical explanation could not be determined.

As the effects of Act 10 continued to come to light it was hypothesized that rural school districts, compared to districts classified as towns or cities, would be potentially impacted the greatest. These truths, combined with declines in funding for all school districts, could have a negative impacts on college readiness of first year students attending the University of Wisconsin-Eau Claire. The results of this study do not offer a concrete answer either way.

After many iterations of multiple regression analyses, it was determined that none of the variables were statistically significant in explaining the performance of first year students at UWEC. Simply put, first year students from the study area yielded conflicting results. There were no concrete spatial patterns, nor explanatory variables providing statistical evidence as to the GPAs of both returning and non-returning students during their first year. While this was against the original assumptions, these results still offer an interesting conclusion the research. With the data used, it was found that a quantitative approach may not be the best to determine how retention in our study area is impacted. The results also offer little to no explanation into the student retention at the University of Wisconsin - Eau Claire. Perhaps the full impacts of Act 10 and declined state funding have not yet fully impacted school districts and graduating students?

While many questions remain unanswered as to why students are leaving UWEC, a geographic analysis of students still can provides valuable retention data. Though the statistical analysis of the above variables yielded no results, a qualitative approach may be necessary to answer more specific questions about why students either struggle their first year or decide to leave the university all together. Still, by identifying spatial patterns of all students, university officials become better informed about who their students are.