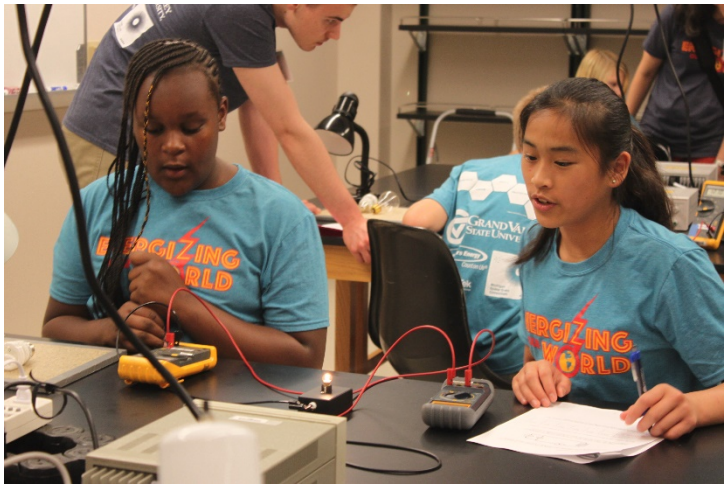
2018 Camp Summary

As the demand for energy continues to change, people need to have the ability to understand and adapt. *Energizing Our World* provides students the opportunity to gain interest and knowledge about a variety of STEM topics surrounding energy, which will cultivate an interest in unique energy careers, thus helping to supply the STEM Pipeline. The partnership with Consumers Energy helps to make this event possible.

The Regional Math and Science Center welcomed 46 middle school students from surrounding schools to participate in a four-day summer camp. *Energizing Our World Camp* took place primarily in the Seymour and Esther Padnos Hall of Science. Students participated in four days of interactive sessions. The 2018 camp added an additional day to allow the students time to utilize the Design Thinking process as well as participate in a renewable energy career fair. As a culminating event, students designed a project that utilized some of the topics discussed in the camp sessions. The projects ranged in variety from solar powered homes to wind farms. The event was facilitated through a collaboration of the Regional Math and Science Center, Physics Department, Geology Department, Chemistry Department, the Office of Sustainable Practices, Holland Board of Public Works, the Michigan Space Grant Consortium as well as Consumers Energy.



Students attended this event from surrounding school districts including Holland, Grand Rapids, Wyoming, and many more. The breakdown of participant demographics are in the following tables. Table 1 displays the student demographic information, which is reflective of a more diverse group than the greater West Michigan

area. The division intentionally favors racial/ethnic minorities, as these groups are underrepresented in the STEM fields. A goal of this project is to provide underrepresented groups the opportunity to engage in hands-on STEM activities in hopes that they will pursue a career in the STEM field.

Throughout the camp, student acquired content knowledge regarding various energy focused STEM fields, which was evident through their statistically significant growth scores in their content tests as well as their self-evaluations of their learning. Students acquired knowledge regarding pump storage facilities, flow cell batteries, and variables that impact solar and wind power.

Table 1

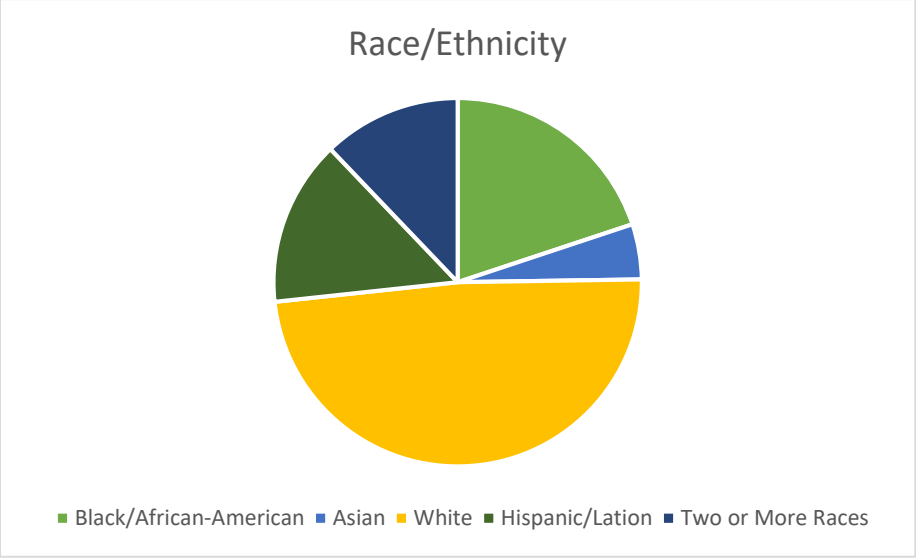
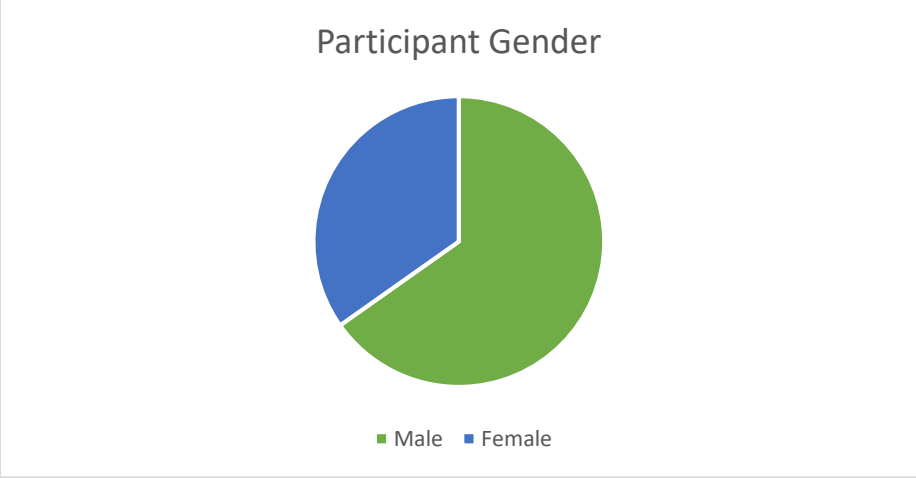


Table 2



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