## The Geography of Climate Change Education (CCE) in Wisconsin

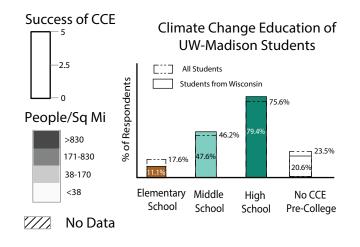
A survey of 63 students conducted for GEOG 565: Colloquium of Undergraduate Majors in 2021 found that only 79.4% of UW-Madison students whose hometown is in Wisconsin have been educated on climate change in a classroom setting before coming to college. The majority of this education took place at the high school level. Participants from Brown and Dodge counties reported no pre-college CCE. Only 8 students, representing 5 counties (Dane, Milwaukee, Washington, St. Croix, and Winnebago) were found to have learned about climate change at the elementary level. This is 6.5% lower than the average of all UW-Madison students.

The survey measured the success of students' educations on climate change through 5-point Likert-scale questions, including the exposure to four main themes; science, causes, impacts, and solutions. We awarded each response 1 to 5 points. A score of 1 indicated a response of "Strongly Disagree" and 5 indicated a response of "Strongly Agree." If the participant received no climate change education pre-college, we gave the response a score of 0. Then, we averaged the responses to assign each respondents' climate change education a specific success score out of 5. Students from Dane, Sheboygan, and Racine County had less exposure to climate change topics during their k-12 education compared with other counties. Manitowoc, Eau Claire, Ozaukee, and Milwaukee county had more exposure to climate change

topics pre-college.

The study also compared the CCE of students with a variety of geographic factors. Using population density as a basemap, we found that population does not predict the teaching of climate change in schools in Wisconsin, as low density counties such as Bayfield had similar Likert-scale scores to medium and high density counties such as Jefferson and Waukesha.

Due to the small sample size of our survey, some counties had less than 5 respondents. This limited the accuracy of the mapped results, as the data may not be representative of the actual educational experiences of students not surveyed. Another limitation to this project is that school districts have unique geographical boundaries which differ from county boundaries. Future research may explore how climate change education varies across school districts in Wisconsin.



Celeste Gunderson December 2021 Data Source: WI DNR, Index Mundi, primary data collected from GEOG 565 Capstone 1:2,700,000 North America Albers Equal Area Conic Projection Central Meridian: 89.5° W Standard Parallel 1: 43.3° N Standard Parallel 2: 45.5° N

ST. CROIX

BAYFIELD



