What is the Green Cincinnati Plan?
The Green Cincinnati Plan is a roadmap that was originally created in 2008 to guide Cincinnati in becoming a national leader in the sustainability movement. The plan is due for its second update since 2008 and Xavier University has been working hand in hand to provide cost benefit analysis of the recommendations. This poster provides an example from only three sections within the plan, but the plan is much larger. With over 80 recommendations in the new version, the city works to further move the needle towards reducing its emission by 80% by 2050.

The Class:
Environment, Economics & Policy (ECON 421)
The poster will document a project undertaken in the Spring 2018 semester by 18 advanced undergraduate Xavier University students enrolled in Environment, Economics and Policy, a course focused on new paradigms in ecological economics representing the union of ecology and economics.

The Project:
Students will estimate dollars per ton of carbon emission reduction for approximately 20 draft recommendations for the 5 year update of the official Green Cincinnati Plan (GCP), specifically in the areas of: Built Environment, Energy, Natural Systems, and Resilience. The project will involve students integrating information on economic costs with estimates of carbon emission reductions for each recommendation.

The Groups:
1. Resilience
2. Natural Systems
3. Energy
4. Built Environment

Student Poster Ex: Built Environment, Natural Systems, & Energy
Jonathon Duffy, Tommy Johnson, Lauren Ghidotti, Charlotte Cheek, Shawn Karim

Most Effective Recommendations:

Built Environment: Build a Sustainability District
A cost benefit analysis showed that creating a Sustainability District in Cincinnati would help the city eliminate over 45,000 tons of CO₂. A sustainability district involves defining a certain geographical location and striving to reduce its water, energy, and transportation carbon emissions by 50 percent. When looking at it from a ton per dollar perspective, the city would remove 45 tons of CO₂ for every one dollar spent. This recommendation addresses the Ecological Economics goal of efficient allocation.

Natural Systems: Increase Tree Canopy Coverage throughout the City
With their being a large disparity between neighborhoods in terms of tree canopy coverage, the most efficient recommendation that will require the least amount of spending while reducing the most amount of carbon deals with increasing the tree canopy coverage to at least 30% in every neighborhood in Cincinnati. This recommendation will allow the city to remove 10 tons of CO₂ with every one dollar spent. This recommendation addresses the Ecological Economics goal of Sustainable scale.

It is estimated the improvements would yield a 25% decrease in energy consumption annually. Financing options reduce or eliminate the upfront investment so it is not a financial burden for low income households to become more energy efficient. This recommendation will allow the city to remove .5 tons of CO₂ for every dollar spent. This recommendation addresses the Ecological Economics goal of Just Distribution.