

MPA STUDENT TEAM:

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**Muscatine Community College
Sustainability and Environmental
Responsibility (SER) Initiative**

Cardinals Going Green

ACKNOWLEDGEMENTS



Dr. Marie Ripslinger-Atwater for establishing a connection with the Iowa Initiative for Sustainable Communities

MCC President, Dr. Naomi DeWinter and MCC Dean of Instruction, Jeremy Pickard for the institutional support

Professors Jerry Anthony and Travis Kraus for your guidance and to faculty and staff in the School of Planning and Public Affairs for preparing us

 **IOWA INITIATIVE**
FOR SUSTAINABLE COMMUNITIES

IOWA

School of Planning
and Public Affairs

PROJECT STATEMENT & SCOPE



Our project will help prepare MCC to incorporate policies and practices that reduce their waste production and carbon emissions to become a more sustainable campus.

PROJECT STATEMENT & SCOPE

Guide PTK's
Honor-in-Action
project for 2022

Assess attitudes and
behaviors regarding
sustainability

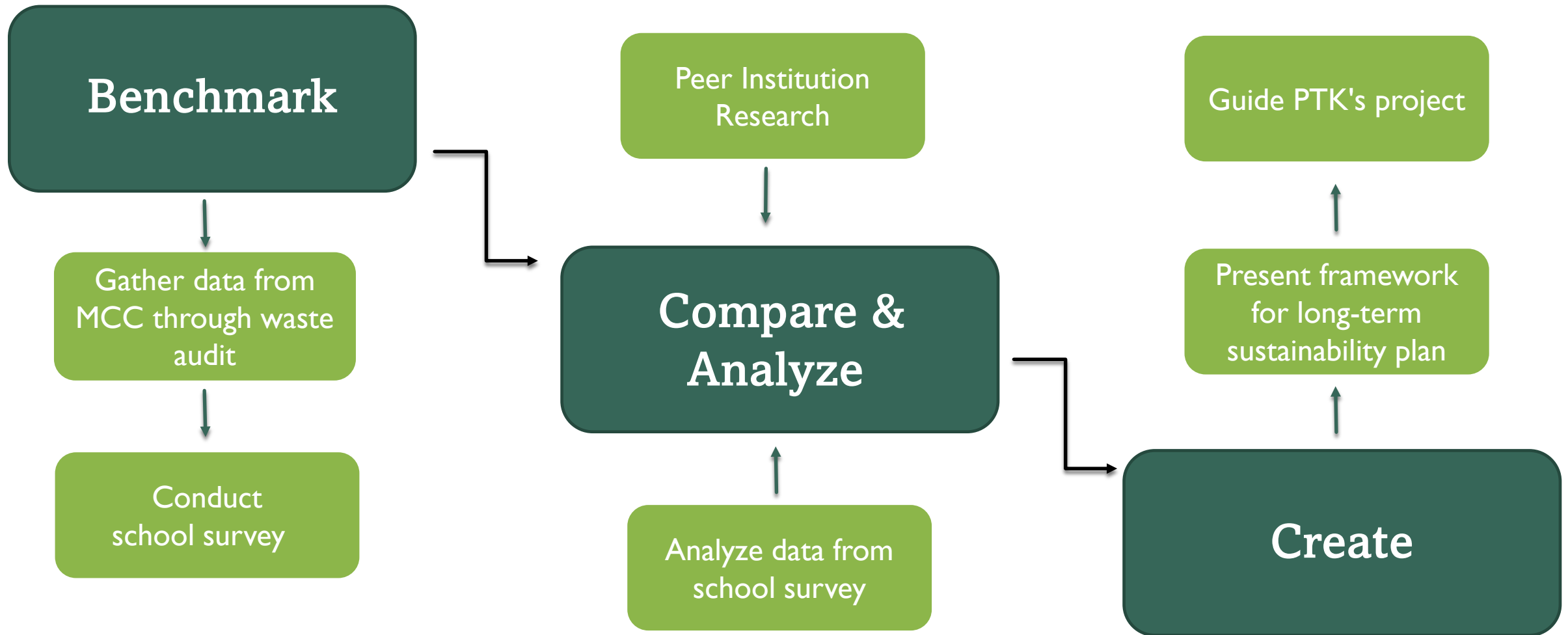
Create a
framework for
development of a
long-term
sustainability plan

COMMITMENT TO DIVERSITY, EQUITY, INCLUSION, & JUSTICE

The project team will ensure all members of the MCC community can be fully engaged in project development and decision-making processes to avoid negative impacts on low-income and minority populations.



METHODOLOGY



DATA COLLECTION: PTK WASTE AUDIT

- Took contents of paper/cardboard recycling, cans/bottles recycling, and trash bins from two locations on campus
 - Library
 - Student commons
- Separated waste into "belongs" and "doesn't belong"
- PTK students will create informational signage in the fall based on data collected



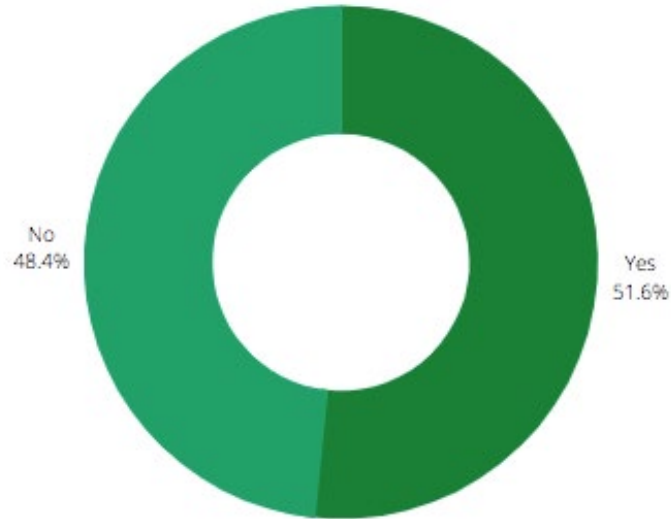
DATA COLLECTION: SCHOOL SURVEY

- Survey Design:
 - Created draft of survey and workshopped with faculty of SPPA
 - Piloted each survey
 - Several PTK members tested the student survey
 - Dr. Marie tested the faculty/staff survey
 - Implemented feedback
 - Approved by MCC Administration

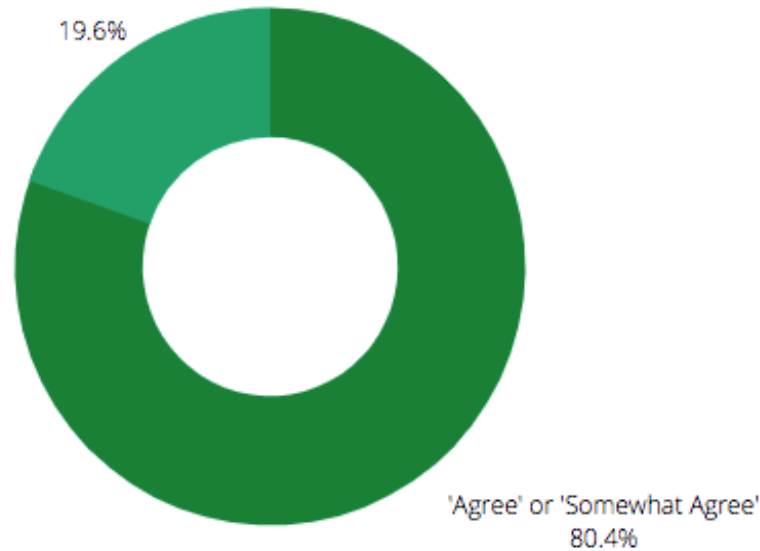
DATA COLLECTION: SCHOOL SURVEY

- Distribution methods
 - Survey was open from March 21st-April 4th
 - Survey was posted on course management site for students
 - Gift card incentive from Chamber of Commerce: #MakeitMuscatine
 - Dr. Marie sent out several campus-wide emails
 - PTK members advertised the survey by word-of-mouth
 - Dr. Marie asked other faculty to let students complete the survey during class
 - Student survey response rate: 10.3%
 - Faculty staff response rate: 41.7%

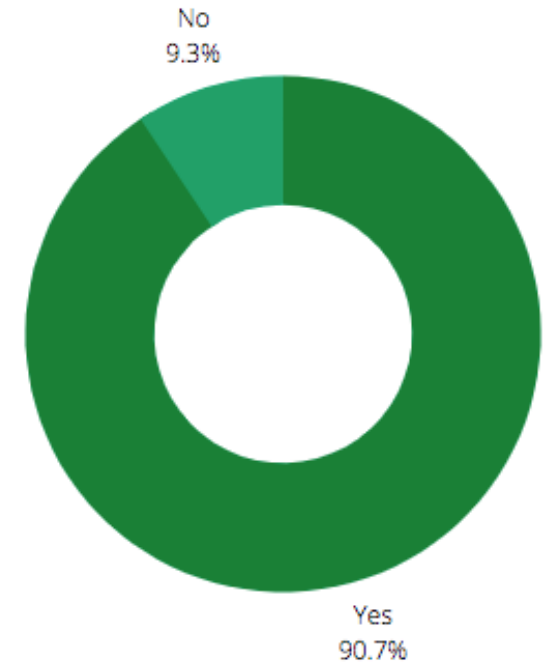
MCC STUDENT SURVEY



Committed to practicing sustainable behavior:
51.6% (65 out of 126)



Important that MCC incorporates sustainability education into all its programs: completely agree (48) or agree (38)

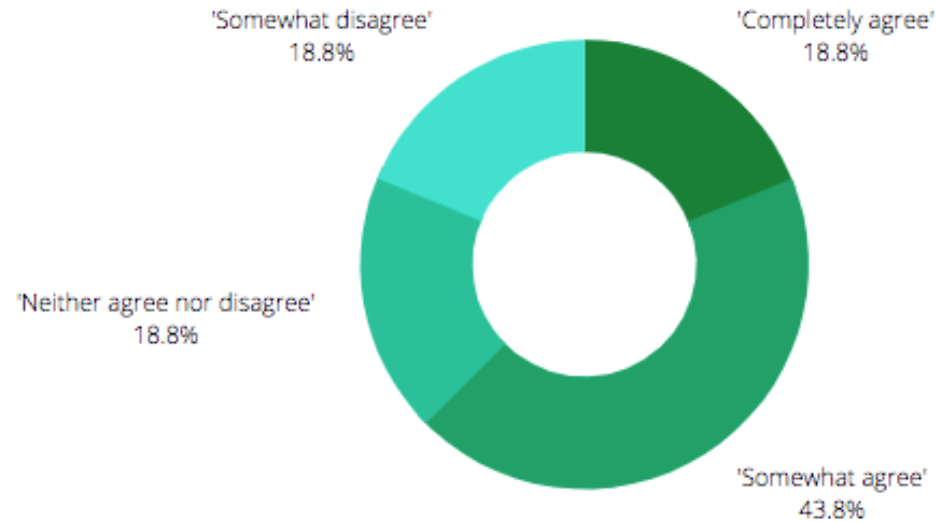


Climate change:
90.7% (97) students said 'yes'

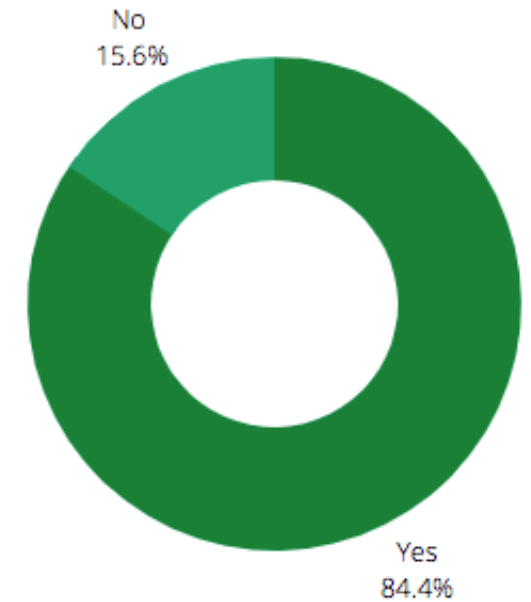
MCC FACULTY/STAFF SURVEY



Committed
to practicing sustainable
behavior: 54.6% (18 of 33)



Make an effort to
incorporate sustainability
into their courses



Climate change: 84.4% (27 of 33)

IN ONE WORD, DESCRIBE HOW YOU FEEL ABOUT CLIMATE CHANGE...

Student Results



Faculty/Staff Results



PEER INSTITUTION RESEARCH

- Review of Sustainability and Environmental Responsibility (SER) plans at like institutions that could be considered peers to MCC
- Evaluated on
 - Type of instruction offered
 - Size
 - Location
 - Availability of Sustainability plan
- Peer Institutions reviewed
 - Grinnell College (IA)
 - Iowa Central College (IA)
 - Kirkwood College (IA)
 - Citrus College (CA)
 - El Camino College (CA)
 - Riverside Community College District (CA)

SER COMMITTEES AND PLANS

- Peer Institution research revealed some similar trends and patterns in terms of initiatives considered and a common structure to the implementation of an SER plan.
 - Formation of SER committee
 - Establishing baseline through waste/energy audits and calculation of carbon footprint
 - Creation of sustainability goals, and determines what initiatives and priorities should be focused on
 - Development of formal and public SER plan
 - Implementation
 - Regular monitoring and reporting on progress

FINDINGS

Peer Institution Research

- SER Committees ensure comprehensiveness and success
- SER development process
- Activities and goals initiatives that might be beneficial for MCC's plan

MCC School Survey

- Both students and faculty/staff largely agreed MCC could improve recycling on campus
- Both students and faculty/staff largely agreed MCC should provide sustainability education
- Most respondents took personal car to campus

Waste Audit

- High contamination in paper/cardboard recycling bins
- Meetings with custodial and housing staff revealed confusion/inconsistency regarding cans/bottles and compost waste destination
- No recycling for plastic, glass, metal, etc.

RECOMMENDATION 1

Create Sustainability and Environmental Responsibility Committee (SER)

Composed of students, faculty, staff and administration

Why?

- SER plans are most comprehensive and successful when they are developed by a group that is committed to designing a plan that is tailored to their institution.

How?

- Recruitment of students, faculty, staff, and community stakeholders
 - PTK should have a permanent seat on the committee, held by student president

RECOMMENDATION 2

Join Association for the Advancement of Sustainability in Higher Education (AASHE) or hire a local sustainability consulting firm

get support, access resources, and receive recognition

Why?

- AASHE can give MCC the tools necessary to achieve their emission and waste reduction goals
- MCC can connect with other 2-year institutions working towards increased sustainability

How?

- Apply online on the AASHE website
- Pay a \$310 annual membership fee



The Association for the Advancement
of Sustainability in Higher Education

RECOMMENDATION 3

Establish baseline emission data

use an online calculator to determine areas for improvement like increasing energy efficiency and conduct comprehensive energy audits of buildings

Why?

- MCC needs benchmark emissions data in order to set goals and track progress
- Efforts like moving toward energy-efficient lighting, appliances, and computers also saves money

How?

- Use the free online calculators provided by organizations like UC Berkeley or the U.S. EPA



RECOMMENDATION 4

Create comprehensive long-term plan that guides SER Efforts

- First phase of the plan should include visioning and establishment of priorities and goals
 - Recommended focus areas and goals
- Second phase should determine SER projects and initiatives
 - Determine short-term, mid-term, and long-term initiatives to meet goals
 - Cost of ownership models for initiatives
- Third phase is implementation of the initiatives
- Final phase is regular monitoring and reporting of progress of goal initiatives

RECOMMENDATION 5

Improve the MCC Waste Management System

switch to source separation of paper, plastic, bottles, cans, and hazardous waste and pursue food waste composting



Why?

- High contamination rates in recycling and cans/bottles bins
- Inconsistency in where cans/bottles bin contents are going
- Confusion around where the compost bin contents are going and how frequently

How?

- Switch to single-stream recycling with current contractor Republic, potentially keeping cans/bottles separate
- Invest in new recycling bin lids that have openings for more than just paper
- Increase communication about and efficiency of current composting

RECOMMENDATION 6

Increase sustainability education in the curriculum

ensure Cardinals understand sustainability, especially as it relates to their future careers

Why?

- 80.4% of respondents either completely agree (48) or somewhat agree (38) that it is important that MCC incorporates sustainability education into all its programs
- Company leaders increasingly see sustainability as one of their top three priorities

How?

- Copy principles of MCC's successful "diversity-rich course" design, in which professors voluntarily have their courses designated
- Avoid creating a requirement that may become a barrier to graduation

RECOMMENDATION 7

Encourage low carbon transportation

work with the City of Muscatine to improve MuscaBus and bike accessibility for MCC commuters

Why?

- Survey data showed that only .8% of respondents utilize public transportation in their commute to campus
- Reasons included: public transportation routes are not geographically accessible, it takes too much time, and the schedules do not align with class schedules

How?

- Schedule a meeting with the Muscatine Transit Supervisor to discuss routes and schedules
- Encourage public transportation and rideshare options, perhaps through increased marketing and subsidies/vouchers

RECOMMENDATION 8

Create a Campus Farm or Garden

products of which can be distributed to students, staff and faculty who may be food insecure

Why?

- This can connect students to sustainability through behavioral engagement
- 44.6% of MCC's students have exceptional financial need and addressing student hunger has already been identified as a priority for MCC

How?

- Involve summer interns of local companies living in student housing
- Pay MCC students to maintain the garden
- Work with the campus food pantry



THANK YOU

APPENDIX A: SUSTAINABILITY AND ENVIRONMENTAL RESPONSIBILITY COMMITTEE

- These committees are responsible for the development and progress of an institution's sustainability efforts, conducting baseline research on the institution, implementing policy changes and projects to counter what they identify as impediments to the progress of sustainability initiatives on campus, and the regular review and reporting of the successes and failures of these initiatives. The SER committee commonly develops a public SER plan that outlines the priorities, projects, and ongoing efforts regarding sustainability on their campuses.
- "The Citrus College Sustainability Committee, consisting of students, faculty and staff, was established in March 2012 to develop the Sustainability Plan and to manage and track its implementation. Over time, members of the committee change, new members are added and some members drop from participation, but the overall management of the plan is relegated to the current members. The Committee meets approximately quarterly to implement the plan and to report progress to the College community"
- Creation of a Vision Statement that can guide sustainability efforts
 - Example: "*Citrus College will promote an active learning and participatory environment, where students, faculty and staff are immersed in quality education and collaborate with peers and industry professionals to encourage and create sustainability awareness and social responsibility, thereby, fostering the advancement of sustainable practices and conservation of resources for the College proper, community and nation as a whole.*"
- We suggest that student organization PTK have a permanent seat on the committee, perhaps held by the current student president to ensure consistency and resonance with the organization's Honors in Action Projects.

APPENDIX B: RECOMMENDATIONS

Some examples of projects and initiatives that should be considered for inclusion in the SER plan, based on data collected and research by the UI project team, should be in the areas of:

- Establishing membership with AASHE to get support, access resources, and receive recognition
- Increasing sustainability education in the curriculum through experiential learning across all programs
- Ensuring energy efficiency through efficient lighting and lighting controls, energy management systems, and the use of energy saving appliances and computers.
- Improving MCC's recycling program with source separation of paper, plastic, bottles cans, and hazardous waste, meeting with community organizations to assist with sorting, collecting and selling recyclable materials, and pursuing green waste and composting. The waste audit and meetings with campus staff revealed high contamination rates in paper recycling bins and a lack of understanding of where bin contents were going.
- Encouraging low carbon transportation options including public transportation, rideshare, bicycling options, and enhanced distance learning. (something about survey data)
- Creation of a Campus Farm or Garden products of which can be distributed to students, staff and faculty who may be food insecure.
- Changing to Green Purchasing Practices so that office products, paper products, custodial and cleaning materials are made of recyclable materials and using local vendors whenever possible.
- Installation of on-site energy generation through implementation of solar and wind power generation.
 - Encouraging the creation of Green student organizations.
- Implementing sustainable water use and landscaping strategies that conserve water as well as the use of native and water-conserving flora.

APPENDIX C: EXAMPLE GREENHOUSE GAS CALCULATORS

Simplified GHG Emissions Calculator

The EPA Simplified GHG Emissions Calculator is designed as a simplified calculation tool to help small business and low emitter organizations estimate and inventory their annual greenhouse gas (GHG) emissions. The calculator will determine the direct and indirect emissions from all sources at a company when activity data are entered into the various sections of the workbook for one annual period.



CoolClimate Network
Smart Tools for a Cooler Planet

A University - Government - Business - NGO Partnership
at the University of California, Berkeley