

URBAN CHANGE - INTEGRATED MODELING ENVIRONMENT (UCIME)

Annual Report for the National Science Foundation (NSF)

NSF Award ID: 9817761
Annual Report for Period: 02/1999 - 01/2000
Principal Investigators: Clarke, Keith C. and Couclelis, Helen
Organization: University of California, Santa Barbara
Official Title: An integrated Modeling Environment for Urban Change Research

Project Participants

Senior Personnel:

Name: Clarke, Keith C. (Dr. Keith C. Clarke)
Worked for more than 160 hours: Yes

Name: Couclelis, Helen (Dr. Helen Couclelis)
Worked for more than 160 hours: Yes

Graduate Students:

Name: Candau, Jeannette (Ms. Jeannette Candau)
Worked for more than 160 hours: Yes

Name: Sutton, Pual (Mr. Paul Sutton)
Worked for more than 160 hours: Yes

Name: Liu, Xiahang (Ms. Xiahang Liu)
Worked for more than 160 hours: Yes

Name: Goldstein, Noah (Mr. Noah Goldstein)
Worked for more than 160 hours: Yes

Organizational Partners

- US Geological Survey (USGS).
- Los Alamos National Laboratory (LANL).
- University of Utrecht - Visit to UCSB by Dr. Peter Purrough. Transfer of PCRaster modeling software to the project. Training sessions given at UCSB.

Other Collaborators or Contacts

- Collaboration with Prescott College, Arizona, Dr. Will Orr.

Activities and Findings

Project Activities and Findings:

- Finalized working version of the Deltatron Land Use change version of the model and posted the source code to the WWW.
- Model Calibration completed for the Santa Barbara, Ca. Study site.
- Established research ties with the National University of Mexico (UNAM) in Mexico City that has sent a research to Santa Barbara to work on the Mexico City Application.
- Couclelis lecture at Department of Geography at the University of Utrecht, Netherlands, "Developing an Integrated Modeling Environment of Urban Change: Theoretical and Methodological Challenges".
- Couclelis presented UCIME as part of the Geography Department Colloquium series.
- Clarke and Candau visited Institute of Ecology at the National University of Mexico to establish research collaboration.

- Have selected the Santa Barbara Economic Community urban growth modeling collaborative as a prototype environment for the Integrated Modeling Environment (IME).
- Held launch meeting for project at the Santa Fe Institute in April, 1999.

Project Training and Development:

- Population density can be partially modeled using returns from the Dense Meteorological Satellite program.

Research Training:

- GIS skills.
- Modeling experience.
- General research preparation and conference presentations.

Education and Outreach Activities:

- Conference presentation at AAG National Meeting, Honolulu, Hi.
- Launched project web page at <http://www.geog.ucsb.edu/~kclarke/ucime/index.html>.
- Gave presentations at two City of Santa Barbara planning meetings.

Publications and Products

Journal Publications:

Books or Other One-time Publications:

Web/Internet Sites:

- <http://www.geog.ucsb.edu/~kclarke/ucime/index.html>

Other Specific Products:

Contributions

Contributions within the Discipline:

Contributions to Other Disciplines:

Contributions to Human Resource Development:

- PhD student Paul Sutton, supported by the project, was hired as an Assistant Professor at the University of Denver.

Contributions to Science and Technology Infrastructure:

Beyond Science and Engineering:

Special Requirements

Special reporting requirements: None.

Change in Objectives or Scope: None.

Unobligated Funds: Less than 20% of current funds.

Animal, Human Subjects, Biohazards: None.

Categories for which nothing is reported