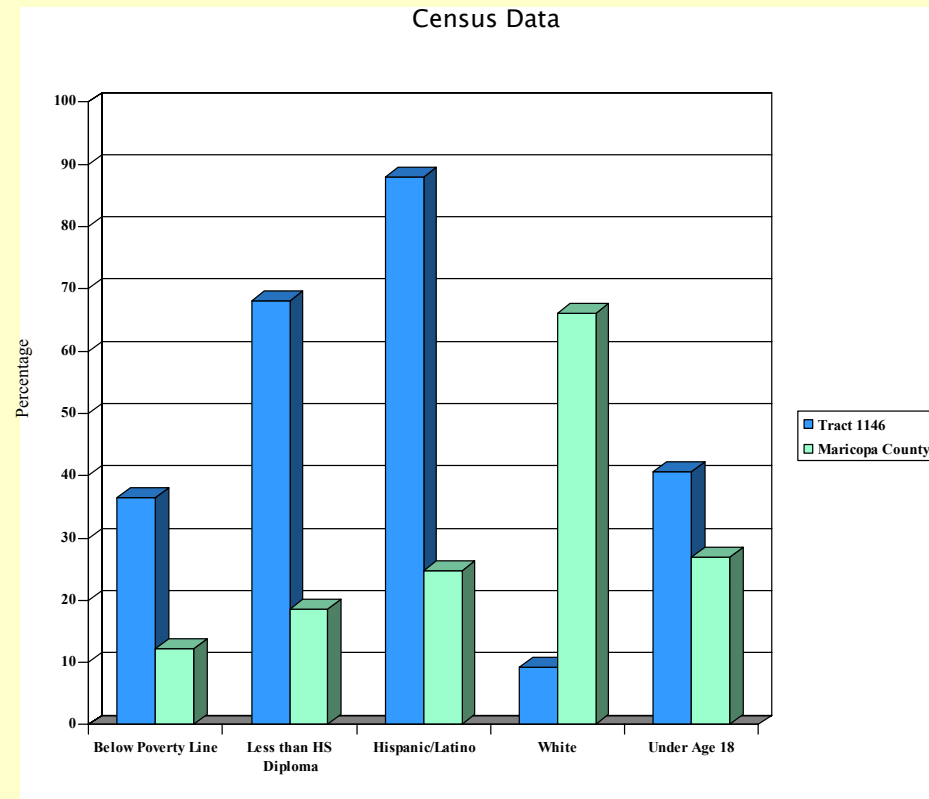
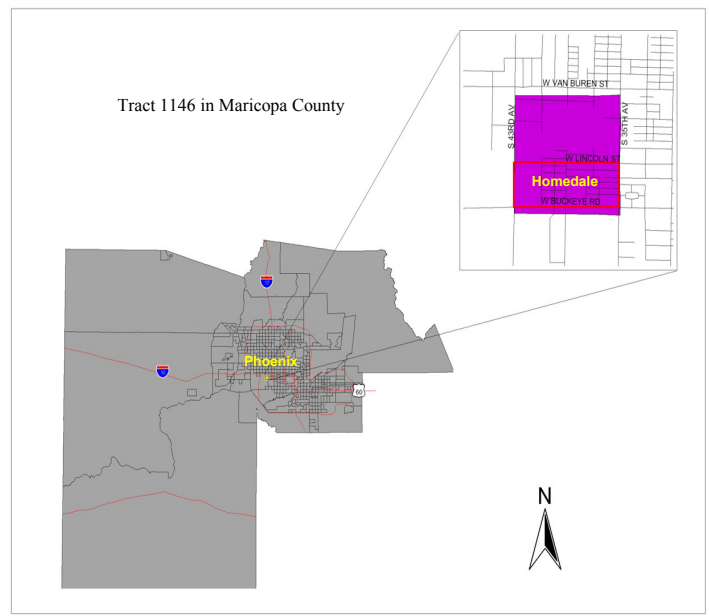


Abstract:

Residents of the Homedale neighborhood in west Phoenix are concerned about environmental conditions in their neighborhood. They complain of sulfur smells and various health problems. They organized themselves to perform a self-study of environmental conditions, health and the quality of life, and came to Arizona State University to ask for information about environmental conditions and guidance in the research. We are collaborating with community leaders to develop a survey instrument focused on health perceptions, hazard perceptions and quality-of-life indicators. In addition, health information will be obtained from symptom and conditions checklists along with information on workplace and neighborhood exposure to environmental hazards. Chemical hazards, toxicity information, and specific health concerns associated with point-source emitters will be mapped in order to help characterize potential risk factors. Ambient air pollution monitoring and dispersion modeling will also be utilized. This project unites sociological, geographical, and geophysical theories, findings and methods (e.g., organizational behavior, community, social stratification, survey research, spatial analysis, and air-quality measurements and modeling) in a community-based research framework. In this it marries the principles of the science shops, pioneered in the Netherlands, with the ideals of a metropolitan university to understand and serve the local community. This project extends existing Central Arizona - Phoenix Long-Term Ecological Research (CAP LTER) into the new area of environmental health. The survey instrument we develop may be used in future CAP LTER Environmental Risk Group research. We hope the project will be a model for future community-based research efforts in greater Phoenix.



The Circle K Truck Stop at 35th Avenue and Buckeye Road borders a residential area. Idling trucks emit Sulfur Dioxide and contribute to ambient air pollution problems in the neighborhood.

Citizens in the Homedale Community developed a survey, with the help of non-profit organizations and ASU researchers, and in November 2001 audited 170 households or approximately half of all the households in the neighborhood.

Results of Community Audit

Health Problems (by household)

- 50.4% Coughing and Congestion
- 47.0% Asthma
- 47.0% Headache
- 46.1% Irritated Eyes
- 21.7% Rashes

Problems in Neighborhood (as reported by respondents)

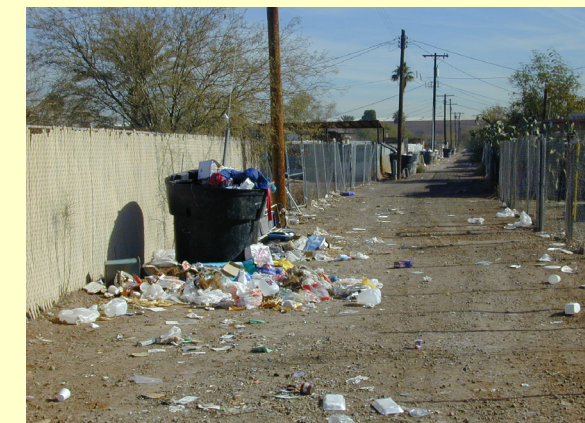
- 68.3% Traffic (i.e., speeding and lack of speed bumps)
- 63.8% Environmental Concerns
- 61.0% Trash
- 51.8% Crime, Drugs, and Gangs
- 47.5% Streetlights
- 44.0% Lack of Youth Programs
- 39.7% Police Protection and Response



An APS power plant is located just west of Smith Park.



Homes and industrial facilities share space in Homedale, a neighborhood in southwest Phoenix.



Homedale residents are concerned about inadequate public service provisions from local government, including the lack of garbage pick-up, streetlights, and speed bumps.