



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

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Project Title 20-Year Study of Air Quality at University of California (UC) Campuses	
Abstract Objectives/Goals To evaluate the University of California (UC) school campuses as to ambient air quantity standards set by the Environmental Protection Agency (EPA). The study period took place during class sessions from 1980 to 2000. Methods/Materials Ambient monitoring stations nearest to the ten UC campuses were identified. Data templates were then originated from these monitoring stations. The resulting tables measured the ambient concentrations per day during the school session. A formula was inserted to identify the days in the year exceeding the federal standard. Results UCR had the highest count in Particulate Matter and Ozone (1-hr.) concentrations of the 1999-2000 school year. All sites met the federal standards for 8-hr. carbon monoxide quantities. Environments surrounding UCD, UCI, UCM, and UCR exceeded the ozone 8-hr. federal standards. The general trend of improvement in air quality should lead to adequate concentrations for the 2000-2001 school year. Conclusions/Discussion The universities that were in an unhealthy environment are more prone to cause faculty and students to be susceptible to asthma and other breathing problems. Universities in sites that currently exceed may want to consider implementing pollutant reduction measures (carpooling, rapid transit, etc). By 2006, the air quality at all the universities should meet the EPA standards.	
Summary Statement This project evaluated the University of California campuses of whether they maintained a healthy environment in attainment with the U.S. federal air quality standards.	
Help Received California Air Quality Management District provided 20 years' information; Semi-finalist of Southern California Junior Science and Humanities Symposium.	