



# The American Statistical Association

## San Francisco Bay Area Chapter

Since 1928

March 1993

JOINT MEETING  
of the  
SAN FRANCISCO A. S. A. CHAPTER  
with the  
GOLDEN GATE SECTION  
of the  
A. S. Q. C.

**DATE** Tuesday, March 16, 1993

**PLACE** His Lordships Restaurant  
199 Seawall Drive  
Berkeley

**TOPIC #1**

Time: 5:15 P.M.

Title: "Has the Bay Area Attained the Ozone Standard?"

Speaker: David Farley

**DINNER**

Time: 6:30 P.M.

Bill of Fare: Choice of Cornish Game Hen or Top Sirloin

Price: \$25.00 per person

**TOPIC #2**

Time: 7:15 P.M.

Title: "The Importance of New Environmental Regulations to Your Business"

Speaker: Nigel Guest, Avalon Engineers

**CONTACT:**

Loren Schoof before March 13th for Reservations at 510-823-9020

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ASQC STATISTICAL TASK GROUP  
Curtis Engelhard  
(408) 765-9325

David Fairley  
Biographical Information

David Fairley is the statistician at the Bay Area Air Quality Management District. He received his Ph.D. in statistics from Stanford University in 1992. He was an assistant professor in the Ohio State University Statistics Department between 1982 and 1987, when he returned to San Francisco and began his work at the District.

### **ABSTRACT**

During the period from 1990 to 1992, no more than two excesses of the federal ozone standard were measured at any Bay Area Air Quality Management District site. The federal ozone standard permits up to three excesses at any site, so it appeared that the District had met the federal ozone standard for the first time in its history.

Unfortunately, the data for the Alum Rock site in Santa Clara County was very limited, and during this limited period it did experience an ozone excess. Federal regulations require that adjustments be made for missing data, and simple-minded missing data adjustment suggests that Alum Rock might have violated the federal standard. A more sophisticated analysis, however, suggests otherwise.

Ozone tends to be quite consistent spatially, and there is a high density of ozone monitors in the San Jose area near the Alum Rock site. So, although the Alum Rock site hasn't operated very long, it was possible, using regression analysis, to predict with a reasonably high degree of precision what the site would have measured. Naturally, these predictions contain a degree of uncertainty. But it was possible to both quantify the uncertainty of predictions for individual days and also to combine these individual uncertainties into an overall probability that Alum Rock would have had at most three ozone excesses. The conclusion did not seem sensitive to the choice of error distributions.

## JOB OPPORTUNITIES

Becton Dickinson Immunocytometry Systems  
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2350 Qume Drive  
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### Biostatistician

BDIS is seeking an accomplished Biostatistician, preferably with a background in the health care industry.

You'll perform statistical analyses and develop tracking systems to determine the efficiency of clinical trials and interact with clinical investigators to determine protocol design; perform statistical analyses to resolve product testing/development and manufacturing quality control problems. Evaluate databases and statistical analysis programs and interact with computer groups to determine hardware/software compatibility.

The ideal candidate will have an MS in statistics or mathematics and 3-5 years of related experience, 0-2 with a Ph.D. You should have strong interpersonal skills and expertise in statistical methodology, statistical programming and computer systems. Familiarity with at least one statistical package is required, e.g., SAS, SYSTAT, SuperANOVA. Knowledge of both IBM and Macintosh computers a plus.

### NOTE: ADMINISTRATIVE

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It is very important that all ASA Officers and Members fax any material for the Newsletter a month before the Newsletter is mailed. Please fax your information to Ronald Thomas, Ph.D., ASA Secretary. Our fax # is 415-463-2605

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American Statistical Association  
SAN FRANCISCO BAY AREA CHAPTER

570 Jefferson Drive  
Palo Alto, Ca. 94303

