



# American Statistical Association

## SAN FRANCISCO BAY AREA CHAPTER

### SPECIAL EDITION OF THE NEWSLETTER

#### SUMMER 1987 Calendar

AUG 12            WED    Predictive Statistical Control Charts for Dynamic Process Control (ASQC)

AUG 17-20   MON-THUR   Joint Statistical Meetings (ASA, ENAR, WVAR, IMS)

#### STATISTICS TASK GROUP OF THE ASQC - SANTA CLARA VALLEY SECTION

**SPEAKERS:**       Rahman Azari, University of California at Davis  
Fred Khorasani, Intel Corporation

**TOPIC:**           Predictive Statistical Control Charts for Dynamic Process Control

Most widely used control charts such as Shewhart and CLMSUM are based on their assumption of independent observations. However, in many industrial applications, this assumption is rarely valid. Quite often the observations are correlated within the samples, between the samples, or both. This is due to the sampling method and the nature of the manufacturing process. Therefore, the usual control charts may result in erroneous conclusions and costly consequences. In this presentation alternative methods for control charting of correlated datasets using multivariate and time series modeling are given. These methods are applied to data from a wafer manufacturing process, and the results are compared. It will be shown that the control charts based on time series modeling have the added advantage of being predictive and therefore can be used as a tool for dynamic process control.

**DATE:**            Wednesday, August 12, 1987 at 4:00 p.m.

**PLACE:**           Intel Corporation Auditorium  
Santa Clara Building 9  
3601 Juliette Lane  
Santa Clara

**DIRECTIONS:**   Take Montague Exit from Highway 101. At the first light turn left onto Mission College Blvd. At the next light, turn left into Intel parking lot. For additional information, call Fred Khorasani (408) 496-9998.

**PRESIDENT**  
Elizabeth S. King  
(415) 938-9417

**PRESIDENT-ELECT**  
Alvin D. Wiggins  
(916) 752-7623

**VICE-PRESIDENT  
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Florence van Geem  
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(415) 855-2615

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(415) 493-5000 x2181

**TREASURER**  
Anna Bagniewska  
(415) 855-5289

**COUNCIL of CHAPTERS  
REPRESENTATIVE**  
Barbara Kamm  
(415) 855-6163

## EMPLOYMENT OPPORTUNITIES

### Syntex Laboratories has the following job opening:

### BIostatistician I/II

Design, analyze and report Phase IV clinical trials; determine appropriate experimental designs, statistical analysis techniques, and report formats; perform statistical analyses using micro and mainframe computers, and write statistical reports. Must be able to work independently, under pressure, and with medical and other non-statistical staff.

Requirements: MS in biostatistics with 5-10 years of clinical trials experience, or Ph.D. with 1-10 years experience.

If interested, contact:

Laurie Peltier  
Syntex Laboratories  
3401 Hillview Ave.  
Palo Alto, CA 94303  
(415) 855-5914

Lucho Bravo  
Syntex Laboratories L-1108  
3401 Hillview Ave.  
Palo Alto, CA 94303  
(415) 855-6297

### Failure Analysis Associates, a nationwide engineering and scientific consulting firm, has the following vacancies at its Palo Alto Office:

#### 1. SENIOR STATISTICIAN (Reference #GF)

Responsibilities include:

- Developing procedures to perform statistical analyses using a large volume of accident data
- Coordinating and managing tasks performed by research assistants and junior-level statisticians.

Requirements: Ph.D. in Statistics; a doctorate-level degree in an engineering discipline and strong statistics background may qualify. Familiarity with experimental and survey designs and knowledge of statistical packages such as SAS and SPSS desirable. Must be able to convey highly complex issues to both technical and non-technical personnel:

#### 2. BIostatistician (Reference #RP.1)

Duties include:

- Quantitative analyses of occupational and environmental epidemiologic studies; health risk assessments; statistical modeling
- Critical review of the health risk literature
- Writing reports describing risk assessments

Requirements: A Master's degree or Ph.D. degree in Statistics or Biostatistics. Good computing skills and familiarity with statistical packages are highly desirable. Applicants should have 3 or more years of relevant experience.

Excellent remuneration and benefits package. Applicants should send a resume to:

Personnel Manager  
Failure Analysis Associates  
P.O. Box 51470  
Palo Alto, CA 94303

### 1987 JOINT STATISTICAL MEETINGS

The 1987 joint meeting of the ASA, IMS, and the Biometrics Society will be held in San Francisco on August 17-20. Elsewhere in this newsletter are the titles of the special and invited sessions; they are reproduced from the April issue of Amstat News. The preliminary program will appear in the June issue of Amstat News.

Since the April issue, a few titles and the names of several speakers have been announced. They include:

#### Monday, August 17

- 8:30 a.m. General Methodology Lecture #1 will be presented by G.P. Patil of Penn State University, "Encountered Data, Statistical Ecology, Environmental Risk Analysis, and Weighted Distributions".
- 12:30 p.m. Economic Outlook Luncheon (Fee Event)  
Professor Milton Friedman will present his outlook for the economy.
- 2:00 p.m. Congressman Mervyn Dymally will chair a formal congressional hearing by the House Subcommittee on Census and Population about "The Impact of Population Undercount."

#### Tuesday, August 18

- 8:30 p.m. ASA Presidential Address  
Barbara Bailer will speak on "Statistical Practice in Research: The Essential Interactions".

#### Wednesday, August 19

- 8:30 a.m. General Methodology Lecture #2 will be presented by N.A.C. Cressie of Iowa State University, "Statistics of Spatial Data".
- 4:00 p.m. The R.A. Fisher Lecture will be given by F. Mosteller of Harvard University.

For the convenience of those Chapter members who are not members of the ASA, a preregistration form has been included in this Newsletter. Chapter members with questions about the joint meeting: Those in the vicinity of Davis, call Alvin Wiggins (916) 752-7623; those in the East Bay, call Elizabeth King (415) 938-9417; those in San Francisco and Marin County, call Arlene Frazier (415) 622-8422; others should call Kelvin Lee (415) 493-5000, #2528.

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### VOLUNTEERS NEEDED - 1987 JOINT STATISTICAL MEETINGS

The Chapter is issuing a plea for members to volunteer to man the INFORMATION BOOTH or the PRESS ROOM at the Joint Statistical Meetings, to be held at the San Francisco Civic Auditorium. Members will be needed at the INFORMATION BOOTH (to answer questions about transportation, dining, how to get to tourist sites, etc.) from Sunday, August 16 through Thursday noon, August 20.

Please contact Dr. Dean Fearn at California State University, Hayward [(415) 881-3447] if you can volunteer some time or Elizabeth King [(415) 938-9417] if you have any questions. Some books from the Publishers' Exhibits will be available to students who work.

### SURVEY OF THE CHAPTER

The new Chapter officers are in the process of making plans for 1987-88, and they would like your input about Chapter activities. What do you want out of the local ASA Chapter membership? How might the Chapter improve its function and/or services to better meet your needs? Although Chapter memberships exceed 500, attendance at Chapter meetings generally average about 30 people. We would like to organize activities to get more members involved. Please take several minutes to complete the enclosed questionnaire, and return it to Kelvin Lee, 515 Tiller Lane, Redwood City, CA 94065. If it is more convenient, call him with your comments at (415) 493-5000, #2528.

To refresh your memory, fifteen meetings were held in 1986-87. The list of speakers:

	<u>General Applic</u>	<u>Joint</u>	<u>Biostat</u>
Sept	Arlene Frazier		Alvin Wiggins
Oct	George Milliken		Allen Izu
Nov		Dorit Carmelli	
Dec	Michael Orkin		
Jan			Alice Whittemore
Feb	Laurence George		Stuart Beal
March	Janet Williams		Anthony Thrall
April	Andrew Carey		Nicholas Jewell
May		Barbara Bailar	
June		Michael Tarter	

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### POSITION WANTED

Statistician looking for leadership position in quality field. Five years industrial consulting experience with 3-year experience implementing Dr. Deming's techniques. Has MS in Statistics from Univ of Wisconsin (Madison) with research work under Dr. George Box. Strengths include experimental design, SPC, QC, and Taguchi methods. Adept with SAS, Fortran, Minitab, JASS, and IMSL subroutines. For further information, contact Tim Kramer, 4725 Sheboygan #232, Madison, WI 53705. (608) 238-8134/9934.

# 1987 Joint Statistical Meetings

ASA • ENAR • WNAR • IMS

San Francisco • August 17-20



## SPECIAL AND INVITED SESSIONS

MONDAY, AUGUST 17  
8:30 a.m.-10:20 a.m.

GENERAL METHODOLOGY LECTURE I  
ASA, ENAR-WNAR, IMS

HOW MUCH IS YOUR EX-SPOUSE WORTH? VALUING HOME PRODUCTION INTERNATIONALLY, IN THE U.S., AND LEGALLY  
*Caucus for Women in Statistics, ASA Comm. on Women in Stat., Bus. & Econ. Stat. Sec., Soc. Stat. Sec.*

PROBABILITY AND ARTIFICIAL INTELLIGENCE IN MEDICINE  
*Bio. Sec., ENAR-WNAR, IMS, Biopharm. Sec., Soc. Stat. Sec.*

STATISTICAL PACKAGES IN TIME SERIES  
*Bus. & Econ. Stat. Sec., Sec. on Phys. & Engr. Sci., Sec. on Stat. Comp.*

ADMINISTRATIVE OFFICE OF THE COURTS: NEW STATISTICS  
*Soc. Stat. Sec.*

APPLICATIONS OF RECENT METHODOLOGY IN REGRESSION\*  
*Stat. Comp. Sec.*

THE MISSING, THE HOMELESS, AND THE VICTIM: COUNTING THE HARD TO COUNT  
*Sec. on Surv. Res. Meth.*  
SPECIAL INVITED PAPER  
IMS

TIME SERIES ANALYSIS  
IMS

10:30 a.m.-12:20 p.m.

JASA THEORY & METHODS INVITED PAPER  
ASA

EPIDEMIOLOGIC METHODS (Dedicated to the Memory of Bernard G. Greenberg)  
*Bio. Sec., ENAR-WNAR*

CASE STUDIES IN QUALITY AND PRODUCTIVITY  
*Sec. on Phys. & Engr. Sci., ASA Comm. on Quality & Productivity*

USING THE SIPP TO ANALYZE FAMILY COMPOSITION AND INCOME DYNAMICS  
*Soc. Stat. Sec.*

STATISTICAL COMPUTING: EDUCATION AND FUTURE  
*Stat. Comp. Sec., Sec. on Stat. Educ.*  
WALD LECTURE I  
IMS

12:30 p.m.

ECONOMIC OUTLOOK LUNCHEON  
*Bus. & Econ. Stat. Sec.*

2:00 p.m.-3:50 p.m.

THE IMPACT OF POPULATION UNDERCOUNT (Congressional Hearing)  
*ASA Comm. on Govt. Stat.*

STATISTICAL ISSUES IN CHRONIC DISEASE NUTRITION TRIALS  
*Bio. Sec., ENAR-WNAR*

ECONOMETRIC MODELS OF COST AND PRODUCTION FUNCTIONS: SOME COMPARISONS  
*Bus. & Econ. Stat. Sec.*

A RETROSPECTIVE LOOK AT THE TAGUCHI METHOD IN THE U.S.A.  
*Sec. on Phys. & Engr. Sci., ASA Comm. on Quality and Productivity*

COMPUTER-AIDED EXPERIMENTAL DESIGN  
*Stat. Comp. Sec., Sec. on Phys. & Engr. Sci.*

SURVIVAL ANALYSIS  
IMS

RECENT DEVELOPMENTS ON SEQUENTIAL ESTIMATION  
IMS

QUANTILE DATA ANALYSIS  
IMS

4:00-5:50 p.m.

PRESIDENT'S INVITED ADDRESS  
ASA

TUESDAY, AUGUST 18  
8:30 a.m.-10:20 a.m.

JASA APPLICATIONS INVITED PAPER  
ASA

META ANALYSIS OF CLINICAL TRIALS  
*Biopharm. Sec.*

APPLICATIONS OF RECENT METHODOLOGY IN BAYESIAN ANALYSIS OF DYNAMIC MODELS: THE KALMAN FILTER AND BEYOND\*  
*Bus. & Econ. Stat. Sec., Bio. Sec., Sec. on Phys. & Engr. Sci.*

STATISTICS FOR AN AGING SOCIETY  
*Soc. Stat. Sec.*

QUALITY CONTROL PROGRAMS IN ACADEMIA AND INDUSTRY  
*Sec. on Stat. Educ., ASA Comm. on Quality & Productivity*

NEW METHODOLOGY IN STATISTICAL GRAPHICS  
*Sec. on Stat. Graphics, Stat. Comp. Sec.*

MEASURING THE CONCENTRATION OF PERSONAL WEALTH IN THE UNITED STATES, 1962-1983  
*Sec. on Surv. Res. Meth.*

SPECIAL INVITED PAPER  
IMS

SMALL SAMPLE ASYMPTOTICS  
IMS

NONPARAMETRIC STATISTICS  
IMS

10:30 a.m.-12:20 p.m.

STATISTICS IN SPORTS  
*ASA Council of Chapters*

IMPROVING THE EFFECTIVENESS OF STATISTICAL CONSULTANTS: A LIVE DEMONSTRATION  
*Stat. Div. of American Soc. for Quality Control, Sec. on Stat. Educ.*

NON-STANDARD CLINICAL TRIALS—DESIGN AND ANALYSIS  
*Bio. Sec., ENAR-WNAR, Biopharm. Sec.*

HOW GOOD ARE ECONOMETRIC MODELS?  
*Bus. & Econ. Stat. Sec.*

RESPONSE SURFACE METHODOLOGY  
*Sec. on Phys. & Engr. Sci., Sec. on Stat. Graphics*

POLICE HANDLING OF DOMESTIC VIOLENCE  
*Sec. on Surv. Res. Meth., Soc. Stat. Sec.*

PARALLEL PROCESSING IN STATISTICS  
*Stat. Comp. Sec.*

WALD LECTURE II  
IMS

2:00 p.m.-3:50 p.m.

TECHNOMETRICS INVITED PAPER  
*ASA, American Soc. for Quality Control*

ENVIRONMENTS AND TOOLS FOR DISPLAYING STATISTICAL DATA  
*Nat. Computer Graphics Assn., Sec. on Stat. Graphics*

STATISTICAL ISSUES IN ESTIMATION OF PROGRESS AGAINST CANCER  
*ASA Comm. on Women in Stat., Caucus for Women in Stat., Bio. Sec., ENAR-WNAR, Biopharm. Sec.*



STATISTICAL ANALYSIS OF BIOMEDICAL IMAGES: TECHNIQUES FOR SHAPE COMPARISONS

Bio. Sec., ENAR-WNAR, Sec. on Stat. Graphics

MAKING STATISTICS MORE EFFECTIVE IN SCHOOLS OF BUSINESS

Bus. & Econ. Stat. Sec., Sec. on Stat. Educ.

CAUSAL MODELS IN SOCIAL SCIENCE

Soc. Stat. Sec., Bio. Sec., ENAR-WNAR, Bus. & Econ. Stat. Sec.

SPECIAL INVITED PAPER

IMS

PROBABILISTIC ANALYSIS OF ALGORITHMS

IMS

NONPARAMETRIC INFERENCE FOR WEAKLY DEPENDENT RANDOM VARIABLES

IMS

4:00 p.m.-5:50 p.m.

APPLICATIONS OF STATISTICS IN METEOROLOGY AND CLIMATOLOGY

American Meteorological Soc., Sec. on Phys. & Engr. Sci.

EXACT INFERENCE FOR CATEGORICAL DATA

Bio. Sec., ENAR-WNAR

ACCOUNTING FOR ERRORS IN VARIABLES IN STATISTICAL INFERENCE

Bus. & Econ. Stat. Sec., Bio. Sec., ENAR-WNAR, Soc. Stat. Sec.

1990 CENSUS UNDERCOUNT AND ADJUSTMENT

Soc. Stat. Sec.

STATISTICAL TEXT PROCESSING

Stat. Comp. Sec.

COMPLIANCE AND COST CONTROL: TAXES, WELFARE, AND STUDENT LOANS

Sec. on Surv. Res. Meth.

SPECIAL INVITED PAPER

IMS

8:30 p.m.

PRESIDENTIAL ADDRESS

ASA

WEDNESDAY, AUGUST 19

8:30 a.m.-10:20 a.m.

GENERAL METHODOLOGY LECTURE II

ASA, ENAR-WNAR, IMS

STATISTICAL NEEDS AND IMPROVEMENT IN RISK ASSESSMENT

Bio. Sec., ENAR-WNAR, Biopharm. Sec.

DATA ANALYSIS PROBLEMS IN TIME SERIES ANALYSIS

Bus. & Econ. Stat. Sec.

APPLICATIONS OF RECENT METHODOLOGY IN INDUSTRIAL MIXTURE EXPERIMENTS\*

Sec. on Phys. & Engr. Sci., ASA Comm. on Quality & Productivity

MICROS AND SUPERMICROS IN UNDERGRADUATE STATISTICAL EDUCATION

Sec. on Stat. Educ., Stat. Comp. Sec.

MANPOWER EXPERIMENTS: DESIGN, EXECUTION, ANALYSIS

Sec. on Surv. Res. Meth.

BOOTSTRAP AND COMPUTER INTENSIVE METHODS

IMS

MARKOV PROCESSES

IMS

10:30 a.m.-12:20 p.m.

JBES INVITED PAPER

ASA

APPLICATIONS OF RECENT METHODOLOGY IN BIOSTATISTICS\*

Bio. Sec. ENAR-WNAR

DRUG APPROVAL IN MORE THAN ONE COUNTRY

Biopharm. Sec.

FIELD AND FOLLOW-UP STUDIES IN RELIABILITY

Sec. on Phys. & Engr. Sci., Bio. Sec., ENAR-WNAR, ASA Comm. on Quality & Productivity, IMS

INTEGRATED ENVIRONMENTS FOR STATISTICAL COMPUTING ON MICROCOMPUTERS

Stat. Comp. Sec.

COGNITIVE ASPECTS OF SURVEYS

Soc. Stat. Sec., Sec. on Surv. Res. Meth.

REITZ LECTURE

IMS

2:00 p.m.-3:50 p.m.

ANALYSIS OF MESSY DATA: A CASE STUDY

Bio Sec., ENAR-WNAR, Stat. Comp. Sec., Sec. on Stat. Graphics

HETEROGENEITY AND CONSUMER CHOICE

Bus. & Econ. Stat. Sec., Subsec. on Stat. in Marketing

TOPICS IN EXPERIMENTAL DESIGN

Sec. on Phys. & Engr. Sci., Stat. Comp. Sec.

PANEL DISCUSSION—APPLICATIONS OF RECENT METHODOLOGY IN IMPROVING THE QUALITY OF BUSINESS STATISTICS COURSES: A PROCESS APPROACH\*

Sec. on Stat. Educ., Mu Sigma Rho

QUALITY STATISTICS AND GRAPHICS FOR MANAGERS, ENGINEERS, AND SCIENTISTS

Sec. on Stat. Graphics, Bus. & Econ. Stat. Sec., Subsec. on Stat. in Marketing

IMPROVING THE QUALITY OF EDUCATION STATISTICS FOR POLICY PURPOSES

Sec. on Surv. Res. Meth.

GOODNESS-OF-FIT TESTS

IMS

PROBABILITY AND PHYSICS

IMS

4:00 p.m.-5:00 p.m.

COPSS PRESIDENTS' AWARD, R.A. FISHER AWARD AND LECTURE

ASA, ENAR-WNAR, IMS, SSC

THURSDAY, AUGUST 20

8:30 a.m.-10:20 a.m.

STATISTICS IN NUCLEAR RISK ANALYSIS

Soc. for Risk Anal., ASA Comm. on Nuclear Reg. Research, Sec. on Phys. & Engr. Sci.

APPLICATIONS OF RECENT METHODOLOGY IN BIOPHARMACEUTICAL STUDIES\*

Biopharm. Sec.

RECENT IMPROVEMENTS AND FUTURE DEVELOPMENTS IN BUSINESS SURVEYS

Bus. & Econ. Stat. Sec., Sec. on Surv. Res. Meth.

EXPERT OPINION: STATISTICAL ISSUES

Soc. Stat. Sec., Sec. on Phys. & Engr. Sci.

MAKING THE COMPUTER DO MORE WORK

Stat. Comp. Sec.

ARE HYPOTHESIS TESTS, P-VALUES, AND MULTIPLE COMPARISONS APPROPRIATE TOOLS IN APPLIED RESEARCH?

Sec. on Stat. Educ., Subsec. on Teaching Stat. in the Hlth. Sci., Bio. Sec., ENAR-WNAR, Biopharm. Sec.

SPECIAL INVITED PAPER

IMS

PROJECTION PURSUIT

IMS

10:30 a.m.-12:20 p.m.

STATISTICS AND ASSESSMENT OF EQUAL OPPORTUNITIES

ASA Ad Hoc Coordinating Comm. for Equal Opportunity in Stat., ASA Comm. on Minorities in Stat., ASA Ad Hoc Comm. on Disabled in Statistics

ERRORS-IN-VARIABLES REGRESSION: BIOMETRIC AND ECONOMETRIC PERSPECTIVES

Bio. Sec., ENAR-WNAR, Bus. & Econ. Stat. Sec., IMS

MODELING EXPERT PROBLEM SOLVING

Sec. on Phys. & Engr. Sci., Soc. Stat. Sec.

APPLICATION OF RECENT METHODOLOGY IN STATISTICAL GRAPHICS FOR NONSPECIALISTS\*

Sec. on Stat. Graphics

ESTIMATING THE SPREAD OF THE AIDS EPIDEMIC

Sec. on Surv. Res. Meth., Bio. Sec., ENAR-WNAR

WALD LECTURE III

IMS

## 1987 JOINT STATISTICAL MEETINGS

American Statistical Association  
Biometric Society, ENAR and WNAR  
Institute of Mathematical Statistics

August 17-20, 1987  
San Francisco, California

PREREGISTRATION FORM

Please Print Legibly!

Name \_\_\_\_\_  
Last First Initial

Badge for Spouse/Guest—print name \_\_\_\_\_  
Last First Initial

(If the spouse/guest is a member who will attend technical sessions, that person must register and pay the appropriate fee.)

Badge Information \_\_\_\_\_  
Work Affiliation City State/Country

Mailing Address \_\_\_\_\_

City State/Province Zip/Mail Code Country

Major Employment Affiliation (check only one box)

U ☐ University or College (not Student)S ☐ StudentB ☐ Business & IndustryN ☐ Nonprofit OrganizationG ☐ Government (Federal, State, Local)☐ Other

Please check your membership(s) ☐ ASA ☐ ENAR ☐ WNAR ☐ IMS ☐ None of these (see #2 or #3)  
A E W I

Check one

1. Preregistration Fee for Member (if received by July 22\*) .....\$95 ☐

If you prepaid, you must attach the original receipt here; photocopies will not be accepted.

(Registration Fee after July 22 will be \$105)

2. Special introductory dues rate for new ASA Members only. Regular Member dues and registration (if received by July 22\*) .....\$145 ☐

(After July 22 Fee will be \$155)

3. Preregistration Fee for Nonmember (if received by July 22\*) .....\$120 ☐

(Registration Fee after July 22 will be \$130)

4. Student Fee (Full-time student only) .....\$30 ☐

5. Senior Member Fee (Retired persons over 65) .....\$45 ☐

\*After July 22: Do not register by mail; pay at the Registration Desk in San Francisco.

Registration includes printed Program & Abstracts Book, admission to Sunday night Mixer (free beer and soft drinks), and Tuesday night Informal Party (cash bar) for registrant and spouse/guest.

Totals for:

Preregistration Fee (from above) .....\$ \_\_\_\_\_

Luncheons (from reverse) .....\$ \_\_\_\_\_

Tours (from reverse) .....\$ \_\_\_\_\_

Proceedings (from reverse) .....\$ \_\_\_\_\_

Total Enclosed .....\$ \_\_\_\_\_

☐ Send information on child care  
(please enclose addressed,  
stamped envelope)

MAKE CHECK PAYABLE TO: JOINT STATISTICAL MEETINGS

If you will not be staying at a hotel shown on the housing form, please enter the San Francisco area phone number where you can be reached (\_\_\_\_\_) \_\_\_\_\_.

Return this form with remittance to: Joint Statistical Meetings, P.O. Box 1401, Alexandria, VA 22313. Registration forms without payment will be returned. This form and payment must be received in Alexandria by July 22, 1987, to qualify for preregistration fee. After this date, registrations by mail will not be accepted.

**Cancellations:** Cancellations received in writing by July 22 will be refunded, less \$10. After July 22 the registration fee, less \$15, will be refunded, but tickets for fee events will not be refunded. Requests for refunds will not be honored after September 15, 1987.

(See over to order fee events and proceedings)

## FEE EVENTS

(See descriptions in brochure)

### LUNCHEONS

How Many?

1. **Economic Outlook Luncheon**—Mon., Aug. 17, 12:30 p.m. .... (ECOL) \$21 × \_\_\_\_\_ = \$ \_\_\_\_\_

**Roundtable Luncheons:** Indicate below your 1st, 2nd, 3rd and 4th choices from the listings in the brochure. Limit 10 persons per table.

☐ Please check here if you are the Discussion Leader, and include ticket payment.

2. **Biopharmaceutical Section**—Tues., Aug. 18, 12:30 p.m. .... (BP) \$21 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Nos. BP-1 through BP-9

1st      2nd      3rd      4th

3. **Social Statistics Section**—Tues., Aug. 18, 12:30 p.m. .... (SS) \$21 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Nos. SS-1 through SS-8

1st      2nd      3rd      4th

4. **Section on Statistical Education**—Tues., Aug. 18, 12:30 p.m. .... (ED) \$21 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Nos. ED-1 through ED-5

1st      2nd      3rd      4th

5. **Business & Economic Statistics Section**—Wed., Aug. 19, 12:30 p.m. .... (BE) \$21 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Nos. BE-1 through BE-10

1st      2nd      3rd      4th

6. **Statistical Computing Section**—Wed., Aug. 19, 12:30 p.m. .... (SC) \$21 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Nos. SC-1 through SC-11

1st      2nd      3rd      4th

**Total for Luncheons** \$ \_\_\_\_\_

### TOURS

Children under 5, sitting on an adult lap, may travel free. Children 5-15 have special rates as noted.

How Many?

1. **Legendary Landmarks**—Mon., Aug. 17, 1:00 p.m.-5 p.m.  
Adult (TR1A) ..... \$16 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Child (ages 5-15) (TR1C) ..... \$15 × \_\_\_\_\_ = \$ \_\_\_\_\_

2. **Splendid Survivors**—Tues., Aug. 18, 1:00 p.m.-5:00 p.m.  
Adult (TR2A) ..... \$23 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Child (ages 5-15) (TR2C) ..... \$22 × \_\_\_\_\_ = \$ \_\_\_\_\_

3. **Legendary Landmarks**—Wed., Aug. 19, 9:00 a.m.-1:00 p.m.  
Adult (TR3A) ..... \$16 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Child (ages 5-15) (TR3C) ..... \$15 × \_\_\_\_\_ = \$ \_\_\_\_\_

4. **Marin Experience**—Wed., Aug. 19, 9:00 a.m.-1:00 p.m.  
Adult (TR4A) ..... \$16 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Child (ages 5-15) (TR4C) ..... \$15 × \_\_\_\_\_ = \$ \_\_\_\_\_

5. **Wine Country Excursion**—Thurs., Aug. 20, 11:00 a.m.-6:00 p.m.  
Adult (TR5A) ..... \$26 × \_\_\_\_\_ = \$ \_\_\_\_\_

**Total for Tours** \$ \_\_\_\_\_

### ORDER YOUR 1987 PROCEEDINGS NOW AT PREPUBLICATION PRICES

To order the Proceedings volumes of papers and discussions presented at this Annual Meeting, indicate below and include payment (no billing, please). These special prices, which include postage, hold only for orders received by September 15, 1987. After September 15, selling prices will be higher. The volumes will be mailed early in 1988; please be sure your mailing address on this form is complete (including zip code).

How Many?

Biopharmaceutical Proceedings\* ..... (B) \$19 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Business & Economic Statistics Proceedings ..... (C) \$28 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Social Statistics Proceedings ..... (F) \$22 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Statistical Computing Proceedings ..... (J) \$21 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Statistical Education Proceedings ..... (H) \$16 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Survey Research Methods Proceedings ..... (G) \$30 × \_\_\_\_\_ = \$ \_\_\_\_\_  
Statistical Graphics Proceedings ..... (K) \$12 × \_\_\_\_\_ = \$ \_\_\_\_\_

**Total for Proceedings** \$ \_\_\_\_\_

\*To include Biopharmaceutical Section papers presented at Midwest Workshop, Spring Regional Meeting, and Applied Statistics Workshop.



SAN FRANCISCO BAY AREA CHAPTER - SPECIAL QUESTIONNAIRE

1. Referring to the Newsletter, out of the 15 meetings scheduled, how many were you able to attend? \_\_\_\_\_ If you attended less than 4, state the pertinent reason(s) why you were unable to participate more.

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2. First circle the area where your home is located. Second, record your preferences for meeting sites by coding 1, 2, and 3, with 1 for the most preferred site; enter "O" for any site(s) where you would NOT attend.

\_\_\_\_\_ San Francisco  
\_\_\_\_\_ Peninsula (Palo Alto and North)  
\_\_\_\_\_ South Bay (e.g. San Jose, Santa Clara, Sunnyvale)  
\_\_\_\_\_ East Bay (e.g. Berkeley, Hayward, Oakland, San Ramon)  
\_\_\_\_\_ Davis  
\_\_\_\_\_ Other (please specify) \_\_\_\_\_

3. Which meeting times do you prefer (Code 1, 2, and 3, with 1 for the most preferred time; enter "O" for any time at which you would NOT attend)?

\_\_\_\_\_ Luncheon  
\_\_\_\_\_ Late afternoon  
\_\_\_\_\_ Evening  
\_\_\_\_\_ Time doesn't matter

4. Which meetings have you liked best? What types of meetings don't you like?

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5. Please suggest interesting topics and/or speakers for presentations which you would likely attend.

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Name (Optional) \_\_\_\_\_

Please return to: Kelvin Lee, 515 Tiller Lane, Redwood City, CA 94065