

extremely suitable for a wide range of applications, from the management of all types of archaeological data to more mundane administrative tasks. We plan to find a lot of uses for it. I would be happy to provide more information on how we are using the system and on the results we achieve with it to anyone who may be interested.

The developer and supplier is Ian Johnson, Minark Research, Department of Anthropology and Sociology, University of Queensland. (More information on Minark appears in the Product Announcements section of this issue of CAAN.) -- Doris Weiland, Department of Anthropology, Temple University, Philadelphia, PA 19122, Tel. 215-787-1423

SOFT ON SOFTWARE ?

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I had a dream. So, I programmed it. Now what do I do with it? Henry Harpending (CAAN 1(4):19) suggests selling it. Lee Sailer (CAAN 1(1):4) suggests giving it away. I am a bit bewildered. Harpending (CAAN 1(4):19) says that software is like a freshman textbook, since intellectually it represents nothing new. This, it seems to me, is like comparing a portable rocket launcher with the handbook for using it. The former is likely to have much more impact than the latter, although "intellectually" the former represents nothing new over the latter. Software is power. It does a job. It works for you.

When I began to use my new program, it awed me enough to say to myself, "Do I really want to give it away?" So I decided on a compromise. It isn't a big program so I thought I would sell it for a small price (\$20.00). Perhaps individuals can buy it. And, those who have grants will save money in that area. Which brings me to my next problem.

I use computers creatively, which means I use them to get grants not to finish them. I need to be set up with some good software before I commit myself to completing a research project. I have to know that the software will work and do the job. I have to know if the proposal is feasible. If Harpending wrote his software after getting a grant to do it, then he is in bigger trouble than he realizes. Selling it under those circumstances is not what NSF has in mind. Obviously he did not, then what does he suggest the creative

grant-getters do?

I am going to fix up my program creatively as I feel like it. Twenty dollars is not enough for me to start worrying about other users who might not like it the way it is. However twenty dollars is enough to make me feel that my creative efforts have not gone unrewarded.

STATISTICAL PACKAGES FOR MICRO-COMPUTERS

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In CAAN (1-3) there was mention of the expense of running SPSS on a mainframe (Grosboll and Salomon:2). More and more often, mainframe statistical analysis is becoming incompatible with reduced departmental budgets or even grant budgets in these cost containment times. Then there was mention of the cost of purchasing the less than ideal attempt made by SPSS to scale down their package for micro computers (report of Watson's letter). SYSTAT was mentioned as a reasonable alternative to mainframe packages by yet another author (White:9). Finally, a program for matrix manipulation and multivariate data analysis was announced (Harpending:20-22).

In fact, there are now a number of excellent alternatives to using mainframe statistical packages such as SPSS or BMDP. These alternatives are micro computer stat packages that were first developed for micros, not scaled down from mainframe or mini programs. Most of them use double precision numbers, will handle from 2000 cases upward, and will accommodate as many as 255 variables per case. They already include most of the routines of mainframe packages, and they are evolving constantly and quickly. You give up a bit of speed to save a bundle of bucks, when you use them. You do not give up any precision, sometimes you gain a bit. And you do not give up ease of data entry, you can even gain there with some of the packages. Finally, you do not give up your favorite statistical routine. All of the packages have the most commonly used statistics, and some even have the exotics (such as SYSTAT's canonical correlation and cluster analysis routines).

Choosing the right micro statistical package is a matter of personal need and preference. I reviewed five excellent,

professional-level statistical packages for the March 1985 issue of Profiles, a computer magazine for Kaypro owners (Trotter 1985). These five (ABstat, Walonick's StatPac, Microstat, NWA Statpak, and Systat) contain between 35 and 75 statistical routines (descriptive, non-parametric, parametric, etc.). They allow recoding of data, subset creation, editing, merging, and a bunch of other data management functions. Better yet, most of them allow you to use already existing data sets, such as dBase II and III files, DIF files, and files downloaded from mainframe computers. So if you absolutely, positively have to run one routine on the mainframe, you can run the rest on your micro.

The main differences between the packages I reviewed consisted of the number of routines that were available, and the style of operation (menu as opposed to command driven). The other difference was the main purpose for which the package was designed. For example, Walonick's StatPac was created with social science survey data in mind. You can use the package to select sample sizes, generate random numbers, choose 3 different data entry modes (depending on how much prompting and protection from mis-coding you want), and then run the most commonly used social science statistical routines, from frequencies and cross-tabs through multiple regression and 3 way ANOVA's. NWA Statpak's designers were interested in the ability to utilize existing, as well as newly created, data sets and with providing you with as many well designed interactive statistical routines as could be crammed on a disk, without causing problems. They succeeded, since the CP/M version has 69 routines, at last count (including 6 non-parametric routines, as well as useful exotics like geometric, harmonic, and quadratic means, moving averages, hypergeometric and inverse normal functions and Fourier analysis). Then there is Systat, with 75 routines in its CP/M configuration, and more than that on its MS/DOS incarnation. It is very powerful. It is also very complex, the one being a direct function of the other. In addition to doing what the other packages do, it also does log linear models, correlation matrix, repeated measures, discriminant analysis, and other routines (to give you a basic idea why White (CAAN 1-3:9) wrote enthusiastically about it.

However, some of you may not want all that power, nor the complexity, not to mention confusion and choice anxiety, that goes along with the most powerful packages. Two of the other packages provide a comfortable alternative. The easiest package to learn and to get up and running in virtually no time at all is ABstat. It has a nice, if not exotic set of statistical routines, and will not scare statistics phobes. Microstat is another alternative, since it balances

between the simplicity of ABstat and the power of Systat. The profiles article compares each of these packages, in terms of statistics and data management and entry routines available.

If you don't want to take my word for it (or want to look at packages that run on Apple DOS, PC/DOS, or UCSD pascal, as well as CP/M and MS/DOS) you can read an article in Byte (Carpenter, Deloria, and Morganstein 1984). It compares the features of 24 statistical packages for micro computers. And it discusses their strengths and weaknesses in some detail.

Both articles are now outdated, since several of the companies have recently released new, improved versions of their packages. But both will give you enough information to narrow the search down to packages that you can both afford and can be confident in, when you submit an article for publication that needs some number crunching in it.

REFERENCES CITED

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1984 Statistical Software for Microcomputers: A Comparative Analysis of 24 Packages. Byte (April):234-264.
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CULTURAL ANTHROPOLOGY DATABASE

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Anthropologists at UCLA are compiling a Standardized Cross Cultural Time Allocation Database. Working with an NSF grant, they are developing a series of monographs that will soon begin to be published by HRAF Press. The monographs, accompanied by ethnographic descriptions prepared by the original ethnographers, will be presented in a dual format consisting of the activity pattern data as originally coded, plus standardized codes of the same data. They expect to have fifteen to twenty such monographs published this year, with each package consisting of a booklet and data