The following transcript of the 1982 Education and Consulting panel discussion has been edited for clarity.

Jim Nelson:

For the second half of the Consulting and Education Session we are holding a panel discussion in hopes of solving your problems and answering your questions on consulting and education services which the SAS staff provides you.

On our panel today, we have John Boiling, Director of Video Education; Mason Nichols, Manager of Consulting Services; Harriet McLaughlin, Senior Technical Consultant; and Herb Kirk, Director of Education. My name is Jim Nelson, the session chairperson, and I will be the moderator. First we will turn this over to Mason Nichols for a few opening comments.

Mason Nichols:

Thank you, Jim. I want to take this opportunity to briefly discuss the consulting services at SAS which will hopefully open up some areas for discussion. As the number of sites and products increase, so does the number of technical calls. And, as Harriet will point out in a few minutes, the number of calls we have been receiving can be answered by simply reading the documentation. So you may ask, "When should I call?" You should call SAS if you need to report a bug in the system; if you need clarification of documentation; if you need to validate a procedure's output; if you need help with new undocumented features; if you want to make a suggestion about the design of SAS; or if you need clarification of error messages. Our technical support staff cannot provide consulting for special interest applications, nor do we have the necessary staff to provide statistical consulting. What we do recommend is that each installation provide consultation services. Then users could direct their questions to them and they, in turn, would contact us if they have a problem they could not handle. If your company provides in-house consulting, we recommend that you contact them first. They maintain a list of existing problems and could probably save you a call to SAS.

To help you set up better consulting services, we are in the process of developing a short course. This course is entitled "Enhancing Technical Support Skills." This course will first be taught in October in Cary, North Carolina. Some of the areas this course will touch on are: SAS's responsibility to the user community; when to contact SAS; the relationship between the component parts of SAS and how they interact. This will answer questions as to why SAS statements cannot currently be link edited and restrictions on data base sizes. We will talk about how to optimally install SAS. This will answer questions as to whether you should put SAS in the LPA library(OS) or the shared segments(CMS). We will also discuss SAS system options and how they should be set. This course will help you to distinguish between a SAS error and a system error. We will investigate the most common user errors and how to readily detect them. We are currently in the development stages and are interested in hearing what you think would be helpful for improving your support skills.

One problem area I anticipate in the future is the new macro facility. What we will probably do in this area is if you cannot reproduce the problem in say 20 statements or less, you will need to mail us the code. It will be impossible to find errors on large problems over the phone. We are also not in the business of de-bugging programs. So please, only mail it if you think it's a SAS problem.

We've talked about when to call SAS, and now we would like to mention what you will need before you call SAS. You should always have your SAS program readily available. This includes the procedure output as well as the log. Some other things that you should know before calling SAS, in case we need to know, are: your site number; what release of SAS you are using and whether it's the optimizer level or the F-level; and what operating system and maintenance release you are running on. If you call in reference to a SAS/GRAPH problem you should know: what terminal access method(VTAM or TCAM) you are using if running under TSO. If you are using an ASCII device, you should know how your PROMPTCHARS option is set. In fact, if you're not getting the right output from SAS/GRAPH and you are using an ASCII device, verify that the translate table as well as the PROMPTCHARS are correct. If you are using an ASCII device, you should know some details about your communications system and terminal (SNA verses NON-SNA; REMOTE verses LOCAL; VTAM, TCAM or VM). We will also need to know all the details of the SASG error message if you are on an IBM3276. If this information is obtained prior to calling SAS, a lot of time may be saved.

When calling SAS, ask for technical support. Do not ask for a particular consultant unless you were already speaking to them on a particular problem. The technical support staff is involved in other projects and those that are not on duty should not be interrupted. As I mentioned Sunday, we are currently in the process of
reorganizing. There will be two levels of consulting, with the second level consultants specializing in different interest areas. They will be getting involved with quality control. This will involve investigating new problems, testing new programs and helping with documentation. We believe this new concept will improve user support. If a question cannot be handled by the person on duty it will be passed on to the second level consultant specializing in that area. It will be this person's responsibility to communicate with the research and development staff to provide you a response.

Now, for what you all have been waiting for. Effective with release SAS79.6 the Usage Notes will no longer be on the installation tapes. A tape containing current Usage Notes will be produced every month. A SAS Representative can request a copy of this tape up to three times a year. Requests must be made in writing and accompanied by a tape. The format of the tape will be two SAS data sets, one data set containing the data and the other data set containing the screen usable by FSEDIT and FS Browse. The data set along with the normal information will contain key words. If a user reports a SOCI with PROC PRINT, you can search for PRINT, ABEND, and SOCI to see if the problem has a fix available. For sites that do not have the Full Screen Product (FSP) the data set can be written to an OS file using PUT statements. With the new version of PROC EDITOR, available in 79.6, this file can be searched like you do with the FSP product. We will monitor this service during the next year. We feel if everyone abides by our guidelines that we will be able to provide this service at no additional cost to the user.

Another service available which we mentioned briefly Sunday and that will be discussed in detail in the CMS session tonight, is the DIAL-A-ZAP. This facility will allow the user to obtain a copy of all the current zaps. This will be available to any site that has a dial-up- terminal. A file is currently set up that contains all the zaps for the CMS release 79.5. After we return from SUGI we will set up more files for OS and all the products on our system.

Last year you were interested in knowing what type of calls came into SAS. Since that time we have taken 2 surveys. I will now turn the program over to Harriet for results of those surveys.

Harriet McLaughlin:
The consulting staff conducted a survey in April of 1981 and then again this past January 1982. During this time, the average number of calls increased from 88 calls per day to 163 calls per day. The number of sites also increased during that time rising from 2400 sites to 4000.

During the April survey we tabulated both the type of questions asked and the resources that we used in answering the questions. Questions asked fell into these categories: 30% data manipulation, 25% procedures, 18% systems, 8% statistical, 15% installation and maintenance, and 7% miscellaneous. As for the resources used to answer the questions, 1/3 of the answers were available in the documentation. One interesting note, we notice a definite pattern to the number of calls during the week. The calls steadily rise to a peak on Wednesday and then steadily decrease to a low on Friday.

Jim Nelson:
If anyone has any questions, and I hope you do, we will answer them up and ask please feel free to come up and ask any questions. I think what has been set up with the tapes and DIAL-A-ZAP will help an awful lot, but I'm sure you have some questions. When you start out, please identify yourselves by name.

Question/Answer Period:

Q - Pete Richard, Virginia Commonwealth
University
You have a problem with users calling you with questions that can be answered by me or the documentation. I have 10,000 users. How can I reach all them and tell them to contact me first?

A - Mason Nichols
Approximately a year and a half ago, we sent out a survey to all sites asking if they provided consulting services and if so, who were their consultants and if they provided consulting services and if so, who were their consultants and did they want their users contacting SAS. When a user called who we felt was not the SAS Representative we would check to see if their site provided consulting. If they did we informed them of this. This survey is now so out of date that it is not being used. After SUGI we will be sending this survey out to all our current sites and then to all new sites as they purchase SAS. With the file up-to-date we will use it and you will get all your users back.

Q - unknown
Your talking about telephone calls, is there anything wrong with us mailing you packages? A lot of things we encounter are not problems but just things that do not work the way they were documented.

A - Mason Nichols
That's great. We would love for you to send us a hard copy of your problems. When there is a new SAS problem reported we usually will request a hard copy.
As far as output that actually does come into SAS, we are in the process of creating a tracking system. When a problem comes in, it will be entered into a data base. If we send it over to systems, there will be a note in the file saying who we gave it to. Then any time you need to know the status of your problem, you could call any of us on the staff and we will be able to let you know. Once the problem has been resolved, you would be contacted and it would be deleted from the file.

Q - unknown, University of Florida
When can we start requesting the usage note tape? Can we start now?

A - Mason Nichols
The tape is not created yet. We will be working on it as soon as we get back and I figure it should be available in a couple of weeks. You can go ahead and send your request and when it gets ready we'll send it.

Q - unknown, University of Florida
Is there a particular person we should send our request to?

A - Mason Nichols
Yes, to the distribution center.

Q - Jim Nelson
Is there any problem if four organizations got together, requested a tape and make copies of it to distribute to the others. This way they would be getting monthly updates.

A - Mason Nichols
No problem. This information will not be copyrighted. Requests are not by the number of licenses that you have but by site. Three requests per year, per site. By how things have gone in prior years, what we recommend is when we have a major release, that you request the tape a month after the release goes out and then again the month after that. For the maintenance releases, a month or two after that comes out should do it. That will then be your three times a year but they would be getting monthly updates.

Q - Charles Shipp, Northrop Corporation
Could you give us specifics on DIAL-A-ZAP?

A - Mason Nichols
I brought the information on the DIAL-A-ZAP. The number that you need to dial is 919/468-3000 (or 3001 or 3002). When you get a carrier, you enter capital-X carrier return. The system at this point will prompt you for CMS or TSO. Enter C for CMS. All files will be on our CMS system. The system then types 'VM370 ONLINE', hit enter. When the system types a '>', enter 'LOGON userid SAS'. The password for all files will be SAS. If you want the CMS 79.5 zaps, enter CM575 or CM5751 or CM5752 as the userid. There will be three user id's per file. To get the zaps for the OS system for 79.5 the userid is OS795. If you want graphics for OS thats OGS795 and I think from there you can figure out from the rest. When you get on the system, there will be a date at the very beginning telling you when the file was last updated. New updates will be added to the beginning. If no new ones have been added, then just hang up. Once you are through listing out all of the zaps the system will log you off.

Q - John Davison, Federal Reserve
Why don't you send out a fill in the blank form to all sites where we can indicate what operating system and what maintenance release etc. we are using. Then when you mail updates you could mail us the copy back to verify that the information is still current. This way all the information you may need you will have on file.

A - Harriet McLaughlin
That's a good idea. For the questionnaire we will be sending out we would include questions on the other information we said we may need.

Q - John Davison
Jim Walker and I were talking about organizing an informal user's group in the Washington area. If other people got together like this they could circulate the usage note tape and keep current.

Q - John Dickinson, IBM Tuson
Would it be helpful to SAS if one IBM location, since we have 75 to 80 licenses, volunteered to be the location where you would send a tape automatically every month. We are starting to form an internal IBM user group and we could pass the tape on to other sites.

A - Mason Nichols
That would be great. Like I said we're going to monitor the system and if it works, then we will be able to continue providing this service at no additional cost. We won't be able to send a tape automatically to you once a month. Just send us a letter once a month.

Q - Pete Richert
In regard to getting sites together, it's hard to know who in the area has SAS. I know you won't tell us who the site reps are for every site in the Richmond area, this is something you wouldn't provide us before. What if I sent you my name and you mail it out to all the sites in my area. Another words give my name out so people could call me and we could then form an informal group. We have at least a dozen sites in the
Richmond area and its hard to know who the SAS reps are.

A - Herb Kirk
Getting our users together and sharing information, we definitely encourage that. If we could funnel the calls through different groups instead of having to answer 100 to 200 calls a day I think we could better serve you. We are willing to support each one of these groups and hope we can assist you in getting organized. When we get back, I will gladly entertain any type of recommendation that you have. If you just send them in writing I personally or Mason will be back in touch with you to see what we can do in organizing this. Everything would be alot better if we could deal with groups instead of individuals.

Q - John Davison
Could you send our names out to people in our area?

A - Mason Nichols
I'm not opposed to maintaining a file. If you tell me I can give your name out to anybody, I'll be glad to. That will help us.

A - Herb Kirk
We will be glad to help you get started in any way that we can. Let us know either in writing or by phone how we can assist you.

Q - Steve Wessell, United Fund
Could you tell me a little about what these usage notes are?

A - Mason Nichols
The usage notes contain problems that we're aware of on our system as well as documentation for new features that have not gotten into our manuals. It also contains information on command user errors they come into SAS time after time. They're really helpful, especially a month after we have a new release. They will then contain all the problems that people have reported to us up to that time.

A - Harriet McLaughlin
We use it under the full-screen-product and when you say search on a certain key you can't believe how fast you get an answer to a certain question. It really is helpful to have the notes available in this form. If you have a problem with PROC PRINT say an OC4 you can search for the OC4. It's really helpful.

Q - Bill Taylor, Biometric Research Institute
I have needs for the notes but I don't want the data set on-line. Is it possible to have them distributed on microfiche, sorted in alot of different ways?

A - Mason Nichols
We are only planning in sending it on tape format in the form that we've discussed. You can take that tape and using SAS or any other means, reorganize it out to a form that would be better for your own use.

A - Herb Kirk
Here again, if we start producing these on multimedia, the cost is going to go up and it's going to be cost prohibitive.

Q - unknown
To help get users in different locations to get together would SAS be willing to maintain an additional user-id on DIAL-A-ZAP, where a FILENAME FILETYPE convention could be used where FILENAME is SASUSER and the FILETYPE is the city you are located in. The file would contain a standard record format which would contain the users name, company name and phone number. When a user dials in they could list this information out and then everything would be on a voluntary basis.

A - Mason Nichols
I think we're going to be limiting what you can get on our system to just the zaps. For security purposes we will need to do this, plus we will need to keep the time available for those who want the zaps. What I thought we might do in this area, is when we go back, get something announced in the SAS Communications for people who want to be added to a file. Then if you want, you can request a list of the people in your area. Let's just handle it by mail instead of through the computer.

Q - unknown, Chicago
Do you have any plans for extending the hours of consultation?

A - Herb Kirk
To be honest with you, in the near future we only plan to maintain the 9 to 5 hours. During the day, consultants are going to come across some problems that they're going to have to do some research on. We need to provide time during the regular work day to resolve these problems. If we extended the hours there would be no time for these activities. I know that's bad for the people on the west coast, but it does give us an opportunity to clean up for that day. We really don't have the manpower to research problems and extend the time that the switch board is opened.

Q - unknown
Any you developing or do you plan to develop an IIS product?

A - John Boling
We have no plans presently to develop an IIS training tool. We are not aware of any other IIS
SAS training products in the marketplace. We have been approached by Delta and ASI companies which many of you already subscribe to in terms of making available our tapes to their users and will be entering into some type of negotiations on our return to Raleigh. They may have an interest in converting SAS into an II5 product.

Comment - Jim Nelson
I do know of one II5 product. The University of South Carolina will distribute at the cost of copying, an II5 course on SAS on the Introduction to SAS Basics. You can contact Charles Poole.

Q - unknown
I would like to ask that some sort of feedback session be set up as a part of education for those of us who have questions or comments about procedures or particular approaches. I don't like the reams of paper that PROC FREQ uses to print the index and I would like some central place to express my comments. I'm not familiar with the SAS staff that so I can not pick out the right person. Is it possible that some session could be set up?

A - Mason Nichols
Do you mean here at SUG? Yes, here at SUGI. That's one of the reasons for coming.

Comment - Herb Kirk
The FREQ suggestion is an item that could go onto the SASWARE ballot and any suggestion we receive become candidates for the ballot. As far as the feedback session we will pass this suggestion on to the SUGI committee for next year to see if they could possibly set something up.

A - John Boling
There are no formal means of organization for accepting such comments, but if you flag down anyone wearing a blue ribbon, we will be more than happy to chat with you or assist you in finding the appropriate individual. We also suggest that since Phil Miller is in the process of gathering information this week on how SUGI should be organized next year, be sure to pass that comment along to him.

Q - Pete Richard
The relationship with education and consulting. I don't answer a hundred questions a day I answer a dozen. I would like to find out what things my users don't understand from the manuals and incorporate this into a short course. Most places teach short courses and we could address these short courses closer to what people don't know.

A - Harriet McLaughlin
I think one thing that is going to help is that the consultants are now reviewing the documentation and can make suggestions on questions that are being asked.

A - Mason Nichols
Pete, there is no way we can keep a list of knowing what your users or somebody else's users are actually asking.

Q - Pete Richard
It's not so much my users, but all users. If you're getting 100 calls a day, there's got to be some specific items they don't understand and I don't care how often you change the documentation, there's got to be some things they don't understand. It would be nice to know that these items are.

A - Mason Nichols
A lot of those areas is what goes into the usage notes.

A - John Boling
The education staff at SAS do provide periodic consulting services and we certainly try to incorporate into courses we teach, areas that we know that users are having trouble with. This is one advantage to bringing us on site to do the course.

Q - unknown, University of Florida
What hours will DIAL-A-ZAP be available?

A - Mason Nichols
As far as I know it will be available whenever the system is up, hopefully twenty-four hours a day.

Q - John Davison
Maybe you could indicate in the usage notes which problems occur frequently?

A - Mason Nichols
We try to put in there only the things that have occurred recently.

Q - AI Best, Medical College of Virginia
In SAS Communications one if the things I would like to see is a Rumors column. It seems a lot of papers are outdated at the conference because you have announced something new. It would be nice to know what's in the wind.

A - Herb Kirk
We will pass your comment on to publications.

Q - Katherine Pano, University of Iowa
I would like to know what changes are being made to your courses.
A - Herb Kirk
John Boling and myself will be addressing this tomorrow morning. We will discuss the course schedule for the coming year, changes we will be making and why, what's happening to our user base and how it is changing.

Q - Ruth Ingram, Proctor and Gamble
My users are calling and finding out things that I don't know.

A - Mason Nichols
The questionnaire that we will be sending out will hopefully help this problem. Hopefully, it will be out shortly.

Q - Unknown
I would like to address the question of having panels in other areas. As far as I can tell, this is the only panel discussion in the program.

A - Jim Nelson
Being involved in the organization of this year's meeting, I do not think there are other panel discussions. I would suggest talking to Phil Miller who was here a little while ago. Please go talk to him. I was in charge of Education and Consulting and I thought that this was a very important part. Mason and I talked about it and came up with this format. That is the only thing that can be done. If nothing else you can form a SUGI panel of SUGI people who feel that they have pretty close contact. Then they can present in mass or whatever the situation is. So comment, we'll take it.

A - John Boling
It might be mentioned that this panel has been held in previous years and this is a continuation of that effort.

A - Jim Nelson
Yes, one other comment that John has just brought up. We have done this panel now for three years and it has gone very well. It would be nice to have it available in other areas.

Q - Mike Hoffman, University of Florida
I know you are planning a new manual for this year, the 82 manual, that makes every three years. With the amount of recent new material that we have, in my opinion, that seems like a long time between manuals. The Usage Notes are pretty thick, even the ones that I got a year ago. The 79 edition in particular seemed to have a lot of problems with the first attempt at typesetting. I really feel that we have been looking a long time for a new manual. We're getting one this year, does that mean we're getting another one in 2 years?

A - Mason Nichols
That is a question that needs to be addressed to the publication's department. They are not here.

Q - Mike Hoffman
As far as education goes, I think that the people in education ought to realize that one paragraph on arrays in the manual is not enough.

A - John Boling
That will be changed. The SAS system is very dynamic and it is difficult to say how frequent the changes in the system are going to be made. Certainly documentation is available in some form and is congruent with the system.

Q - Bill Harrison
We seem to see a fairly consistent problem running through your manuals your education and your video tapes. It seems to be a dual problem. There is an emphasis on the statistical end of SAS and not enough on the fact that SAS is a very good data processing programming language. I think that a lot of people here are here for that reason rather than the statistical end. We would like to see a little more specialization in this area in the education materials.

A - Herb Kirk
I would like to comment on the teaching part of education in this area. The emphasis on the statistical end is one of the things that has really been changing in the last three years. When I started in 1979, we were teaching one course one half was on the data step and the other on procedures and statistics. The first SAS course we ever taught was on site for the Department of Statistics at the University of North Carolina State. For that particular course, all we did was talk about the DATA statement, the INPUT statement, CARDS statement and then onto a few procedure statements. Things have really changed since then, users have changed too. At one time it was used mainly by statisticians now it is being used by people in almost every walk of life. Our courses are hopefully changing, but it takes time. We are now revamping our courses, aiming toward the data handling capability of SAS.

Q - unknown
I just wanted to mention that I'm very glad that SAS has come out with a SAS Video course. One comment on the video, our people had difficulty taking notes at the rate that the slides were being presented on the screen.

A - John Boling
I appreciate your comment. As we will discuss in the paper tomorrow morning with regards to the Basics Video Course, we do plan to upgrade several tapes in the course. A new version of the student workbook is going to include key graphics used on the video tape. We have planned the time of the upgrade at about the same time SAS 82 will be released -- such that the documentation and references will be congruent.
A - Herb Kirk
We're going to try to include in SAS.SAMPLE any examples contained in the courses.

Q - unknown
I would like to know about any plans to have a seminar for users to learn how to teach the course for their own in-house users.

A - Herb Kirk
That's a good comment, but at the present we have no plans to teach such a course. Currently we are planning to hold, at SAS Institute, a seminar on how to enhance technical support.

Q - Rick Laars, Upjohn Company
I would like to comment on the teaching of SAS courses at CMS sites. It makes it difficult when the instructor says in the course "Well, we don't really do it this way in CMS..." and then continues on (without explaining the actual way it is done in CMS).

A - John Boling
It's very difficult in the design of the SAS education courses to make them global in the sense that they are applicable in all situations. That is a proposed change that we are looking at with the Basics Video Course and as part of the structure of the SAS/GRAPH Video Course. We plan to have separate modules that tie all the information together. If you are a CMS site, a different tape will be distributed to you than to a TSO site.

Q - Upjohn Company
Are you also saying that SAS.SAMPLE we will include the data as well as the source. The reason I ask is that the video goes by so fast showing a concept and a page out of that concept, but they don't show the source code given so that it can be double-checked. It would not necessarily need to be in the workbook, but if it were available to me then I could reproduce for our site. It would be helpful to have.

A - Herb Kirk
What will try to distribute in SAS.SAMPLE is the source statements and data for all our courses.

A - John Boling
We are considering as a part of the reorganization for almost any future video course applying a tape that contains all the programs, all the data, etc. that is distributed as a part of that course per se. It's just another piece of information that the course administrator will receive when they lease that video course from us.

Q - unknown
When we call in and find that the problem is in the SAS code level and are told that it will probably be fixed in the next release, I am then left with something that does not work properly for six months or more. I am hoping that SAS will come out with some method so that there is a minimum amount of time between the time it is reported and when it is fixed.

A - John Boling
That question cannot be addressed in this panel discussion.

Q - Clemson University
Have you given any thought to a video course on video disks?

A - John Boling
We are aware of that media in the market place at the present time. I believe there are three video disk standards out there and we are expecting one of them to fall out as the standard. We are looking at the video disks, at the present time, in terms of support of interactive video and we're keeping close tabs on that and hope that sometime in the future we may be getting into that area.

Q - Phil Harris
We are planning a series of short seminars at our company on special topics and one of these is SAS. I was wondering if other companies have had such seminars?

A - Jim Nelson
I don't think that anyone at SAS keeps track of this. I would think of this as being a SUGI function or the SASWARE INDEX.

Q - unknown
I would know how to find out when new SAS VIEWS are being released I would like to be kept informed about this.

A - Herb Kirk
As you have noticed this past year, you have probably had a hard time getting views because we haven't really intended them for full distribution. They are just a copy of our teaching material that we have copyrighted. I think you will later see them on the publication list. We have discouraged it in the past. We ship at least 800 of these views a month and it would be very embarrassing if we have to cancel a course because we didn't have any VIEWS available.

Q - Jim Nelson
No more questions? If not, then this is the conclusion of today's session. Thank you very much.
EDUCATION AND CONSULTING
Private Industry and Government