

# DCSUG Newsletter

Washington, DC SAS Users Group

## Second Quarter Meeting

When: Tuesday, June 13, 2000  
Time: 8:30a.m. to noon  
Place: Bureau of Labor Statistics  
Postal Square Building  
Room G440  
First Street North East  
Washington DC



See Page 3 for **VERY IMPORTANT INFORMATION**

Agenda:	8:30 - 9:00	Registration and refreshments
	9:00 - 9:15	Announcements
	9:15 - 10:15	Ian Whitlock, Westat <b><i>A Personal View of SAS-L as a Teaching Tool</i></b>
	10:15 - 10:30	Break
	10:30 - 11:30	Charles Partridge, PDPC, Ltd. <b><i>How to Parameterize Your SAS Program</i></b>
	11:30 - Noon	User-to User Questions and Answers Moderators - DCSUG officers <b>*Presentation times subject to change</b>



Visitors must use the visitor's entrance on First Street NE. Directions for those taking Metro: Take the Red Line to Union Station. Exit the station via the Amtrak exit, but do not go up to the train level. Instead, after going up to and out through the farecard gates, turn to the left where there is an exit to the street (First Street NE). Directly across from the exit are the employee and visitor's entrances to the building. After checking in with security, take the main elevators down to the G level. **BRING PICTURE ID!**



If you have special needs and are planning to attend this meeting, please contact any DCSUG officer no later than 5/30/2000

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ΦΦΦΦΦΦΦΦ **If you are not currently a paid member of the DCSUG and are planning to attend the meeting, please Email Arlene Siller at [asiller@cdc.gov](mailto:asiller@cdc.gov) or call 301-458-4498 by June 8<sup>th</sup> and leave your name. Security at the Bureau of Labor Statistics is very tight and having your name on a list of possible attendees will make your entrance to the building easier.**

ΦΦΦΦΦΦΦΦ

### President's Message

Peter Knapp

I hope that those of you who went to SUGI 25 in Indianapolis, IN had as good a time as I did. I focused my time on learning about SAS Version 8 as my office will be switching from Version 6.12 in the very near future. It will be an exciting time for me as I will have the challenge of not only learning how to use the new features of Version 8, but will also be teaching my mostly non-programming savvy office mates how to use the enhanced program editor and generate their output using the new ODS system.

As my office and I go through the SAS Version 8 learning curve, I'll be sure to take advantage of the expertise present at DCSUG meetings to ask for help. An advantage of DCSUG is being able to learn about SAS without having to travel long distances to go to regional and national conferences!

For example, the second quarterly DCSUG meeting will be held on June 13 at the Bureau of Labor Statistics and will offer some great opportunities for learning. Charles Partridge will be flying in from Burlington, CT to give a presentation. The inaugural member of the SAS-L Hall of Fame, DCSUG's very own Ian Whitlock will also be presenting.

I hope you can make the meeting. I certainly look forward to attending the meeting and learning something new from these two interesting speakers!

## Speaker Abstracts

### How to Parameterize Your SAS Program

Charles Patridge, PDPC, Ltd.

Many times, beginning SAS programmers develop their programs to perform a task assigned to them without much of any consideration as to how their creation will change in the future due to the ever changing needs of their management and/or environment. As such, many of these beginning SAS programmers will "cut and paste" their prior creations into "new" creations to formulate another solution based upon what they have already created to answer a new but similar business problem.

Afterwards, we end up with a series of similar, yet slightly different SAS programs which become harder to maintain as we move forward into creating more "similar" programs. What happens when the very basic component of our original program has to change due to data changes or another application is created with similar needs?

Copy our existing programs to another directory, make a series of changes to all of our program code, setup new filename(s) or libname(s), and then "Voila", we are ready to go!

Reflection or spending a little more time on the very first SAS program, and thinking about what could change on the next request, how could I use the same program to answer a new question without changing the original code?

Officially, this presentation "[How to Parameterize Your SAS Program](#)" will walk you through a simple SAS program, make a few changes to answer new problem(s), evolve the same program so that it can answer a variety of questions. And finally, ending up with a program that can be used over and over again by many applications resulting in a "Plug-N-Play" methodology of developing future applications.

Sit back, clear your thoughts, take a deep breath, and open your mind to doing things differently! I hope you can see the potential of parameterizing your SAS programs.

*Chuck has been using SAS since 1979 in various positions, companies and consulting assignments. He has worked for Hartford Steam Boiler Inspection and Insurance Co., LIMRA, CIGNA, Aetna, Coldwell Banker Relocation, Bayer Inc., SNETCO, State of Connecticut, Automobile Association of British Columbia, United States Postal Service, Australian Federal Health Insurance Commission, Australian Government, Applied Psychological Techniques, Alan K. Campbell Public Affairs Institute, Arthur Andersen Consulting, Paine Webber, and currently, for The Hartford. In addition, he operates his own company (PDPC, Ltd.) specializing in SAS and "fuzzy merge" applications as well as statistical analysis in a variety of industries. His area of SAS*

*expertise lies in BASE, STAT, AF, FSP, Macros, and ETS.*

*He is the original founder of HASUG in 1983 and currently a member of its steering committee, founder and director of SAS CONSIG (Consultant Special Interest Group), creator and Webmaster for SAS CONSIG web site. He has presented numerous papers and speaking engagements to HASUG, BASUG, NYSUG, NESUG and SUGI as well as presentations at the Institute for Graphic Communications. Since March 1994, Chuck has been informally operating a network (now on the Internet) to link companies, agencies, consultants and SAS professionals with contracts and full time positions. To date, his efforts has directly and indirectly placed over 80 individuals with assignments throughout the United States and overseas. The Internet address to make his effort successful is <http://www.sasconsig.com>. He holds a BS in Mathematics from Central Connecticut State University, 45 hrs of graduate studies in Statistics, completed parts I & II of the Society of Actuaries, HIAA and LOMA exams.*

### A Personal View of SAS-L as a Teaching Tool

Ian Whitlock, Westat

SAS-L is an online SAS Users Group with over 2,000 members around the world, plus a huge number of participants who follow the discussions via the associated news group, comp.soft-sys.sas. After a short introduction and history of the group I will consider questions such as

- C Can you learn from asking questions? Or Is there too much misinformation?
- C Can you learn by giving answers? Or Do you need to be an expert?
- C Is SAS-L sufficiently recognized by training and support people? Or Should you add SAS-L to your learning kit?

I will then provide answers in terms of my participation on SAS-L using examples of interesting coding problems. In summary, this presentation is for anyone who uses SAS who has not been aware of SAS-L and for all the SAS-Ler's who want more.

*Ian Whitlock is a senior systems analyst at Westat, working on survey research problems. He has been programming largely in SAS since 1981 using an interactive environment to develop programs for execution in a batch environment. He is a skilled in problem solving involving SAS macro, PROC SQL, reporting procedures and the DATA step. In addition to programming, he teaches SAS courses to Westat employees. He is active on SAS-L, and has presented many different papers at national, regional, and local SAS User Group meetings.*

## Questions and Answers

Moderated by DCSUG Officers



Bring your SAS programming or procedure questions to DCSUG and its members. During this open session, you can ask questions of and get answers from experienced SAS users. All are welcomed to participate

# DCSUG 2000 Steering Committee OFFICERS

## CHAIR -- Peter Knapp

(202) 482-1359 (202)482-1388(fax)  
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## OTHER COMMITTEE MEMBERS

### Karen Dennis

(301) 294-3876 (301) 294-2034 (fax)  
dennisk1@westat.com

## DESKTOP SPECIAL INTEREST GROUP

### CO-CHAIR -- Joe Mirabal

(703) 265-4620  
jmmirabal@aol.com

### VICE-CHAIR -- Yesvy Gustasp

(301) 589-4530 (202) 307-5888 (fax)  
Yesvy.Gustasp@mix.cpcug.org

## Desktop Special Interest Group

*The Desktop Special Interest Group is looking for a new place to meet twice a year in the evening. If you know of any convenient place, please contact the co-chairs.*

The next meeting TBA

Check the DCSUG home page for the next meeting announcement:  
<http://www.ita.doc.gov/industry/otea/dcsug>

Please contact Yesvy Gustasp or Joe Mirabal (see Steering Committee column) with questions, requests, suggestions, and offers.

## VERY IMPORTANT!!!!!!

Due to the high cost of mailing out newsletters, DCSUG will be **emailing** notices of the availability of accessing the quarterly newsletter (and other important announcements) at the DCSUG Internet site. If you are receiving this newsletter by mail, please check the upper right corner of your label. If you see the following symbol '?@?' it means we do not have your correct email address. Please notify Larry Altmayer at [laltmayer@census.gov](mailto:laltmayer@census.gov) with the email address you want to use to receive notification of the publication of the newsletter. Members will have the option of continuing to receive a hard copy of the newsletter upon request. Please check the upper left hand corner of the label for the renewal date of your membership.

**Please keep your membership current**

# SAS Talk

by Ian Whitlock

Let's look at macro design. How do you design for flexibility? As an example let's build a word wrapping macro. The problem is that you have a long character string and want to wrap on word boundaries (a space) to a shorter length.

For an algorithm we can use jump ahead  $n + 1$  characters. If the  $n+1$  character is a space then take the  $n$ -characters, otherwise search backward for the first space. If found then take up to that point, otherwise take  $n$  characters as the best we can do. Repeat until the entire string has been covered.

Now for the design questions: What should the level of usage be, i.e. should the macro manage a whole DATA step or should it generate part of a DATA step? If the macro manages the whole step then we have to produce a finished result, report, output file, etc., and the user has little control over this step. Thus for flexibility, we want to generate part of a DATA step, letting the consumer supply her part while we supply the code for the word wrapping. In other words, the word wrapping macro should do just that; take care of word wrapping and nothing else.

Now what should we give the user? An array is the most apparent thing, but what if the consumer wants to make a file of multiple records per string, or she wants to write a report? In short, we are not in a position to know what the consumer wants.

The problem is that our algorithm performs a loop and the most desirable thing would be to give the consumer control inside the macro at the bottom, but inside our loop. If we do this, the consumer could decide what she wants, i.e. we have achieved true flexibility. The alternative, to provide enough parameters to guide us in generating the code to her specification, provides flexibility; but at a cost. She would have to learn how to specify what she wants in terms of our parameters, rather than simply writing her own SAS code.

Now we have pointed precisely to the problem - how can we give the consumer control within our macro? The answer is surprisingly simple. Provide a parameter, MAC, to specify invocation of a consumer written macro at the bottom of our main loop. This macro might collect values into an array, or it might use PUT statements to write part of a report, it might output a file, or even do something we have not yet conceived. That is flexibility.

What about the other parameters? Do we need a parameter, INVAR, to name the long character variable? Yes, it would be most inconvenient to insist that the consumer use our name. It should be a required parameter, since there is no way we might guess the name of this variable. It is also convenient to have a parameter with a good default value for the name of the receiving variable. It is true that the consumer will probably move data from this variable, so we could insist that she use our name, but it is politer to allow her a chance to specify the name instead. Finally we need to know the length of the receiving variable. How should we get this information? The output variable belongs to the consumer, since she named it and she will supply that macro that uses it. Typically, she would specify the length in a LENGTH statement before invoking our macro. Well, SAS Version 8 gives us a chance to find out that length with the VLENGTH function. But what if she doesn't care about the variable and doesn't want a LENGTH statement for it? Or what if she has not yet moved to Version 8? Let's supply a parameter, LEN with the null value for default. When it is null, we can use the VLENGTH function, and when it is not, we can make the LENGTH statement based on the value of LEN.

We now have a complete interface:

```
%WordWrap ( invar= , /* required input variable */
            outvar = chunk , /* output variable */
            mac = usermac /* invocation of consumer written macro
                           for use as each chunk is calculated
                           */
            ) ;
```

Suppose the consumer needs an array, then she might write:

```
%macro collect ;
    i + 1 ;
    if i <= dim ( chrray ) then chrray ( i ) = chunk ;
    else error "Need larger array" ;
%mend collect ;
data dsnout ;
    length chunk $ 50 ;
    array chrray (10) $ 50 ;
    set dsnin ;
    i = 0 ; /* index counter to chrray */
    %wordwrap ( invar = longvar , mac = collect ) ;
```

```
run ;
```

Or suppose the consumer decides she wants to directly write the report. then she might have:

```
%macro wrtline ; put @35 chunk ; %mend collect ;
data _null_ ;
  length chunk $ 50 ;
  set dsnin ;
  put blahblah @ ;
  %wordwrap ( invar = longvar , mac = collect ) ;
run ;
```

Note how the consumer has complete control. All her code is from her perspective and she does not need to know anything about the wrapping algorithm except that every once in a while it spits out a variable, CHUNK, that she must use in a macro designed by her for her purpose. Now that we have a good design, let's look at the code.

```
%macro WordWrap ( invar = , /* required input variable */
outvar = chunk , /* consumer result variable */
  mac = usermac , /* consumer macro to be executed */
  len = /* when a chunk is ready */
  /* null defaults to length of */
  /* &outvar (null requires V8) */
) ;
```

```
/* -----
Break at space boundary within required length unless a word is
longer than required length, in which case, word is broken into
required length pieces. The consumer controls what is done with
the created variable, &outvar, in a macro that he specifies.
```

Assume no variables beginning with double underscore in PDV.

Examples:

```
1) %macro m ; output w ; %mend ;
   data w ;
     length chunk $ 40 ;
     set in ;
     %wordwrap ( invar = string , mac = m )
   run ;

2) %macro m ;
   i + 1 ;
   if i <= dim ( a ) then a(i) = chunk ;
%mend ;
data w ( keep = a1 - a10 ) ;
  array a (10) $ 80 ;
  i = 0 ;
  set w ;
  %wordwrap ( invar = longstring , mac = m )
run ;
```

Ian Whitlock <whitloil@westat.com> 5may2000

```
-----
*/
%if %length(&len) = 0 %then %let len = vlength(&outvar) ;
%else %str(length &outvar $ &len ; ) ;
drop __len __start __end __i ;
__len = length ( &invar ) ;
__end = 1 ;
do until ( __end = __len ) ;
  do __end = __end to __len ;
    if substr( &invar , __end , 1 ) ^= " " then leave ;
  end ;
  __start = __end - 1 ;
  __end = __start + &len + 1 ;
  if __end > __len then __i = __len ;
  else
  do __i = __end to __start + 1 by -1 ;
    if substr ( &invar , __i , 1 ) = " " then leave ;
  end ;
  if __i < __start + 1 then __i = __end - 1 ;
  else
  __end = __i ;
  &outvar = substr ( &invar , __start + 1 , __i - __start ) ;
  %&mac
end ;
%mend wordWrap ;
```



## Ian Whitlock First SAS-L Hall of Fame Member



Mike Rhoads

As someone who has been privileged to work with Ian Whitlock for quite a few years now (neither one of us is saying exactly how many), one of the highlights of this spring's SUGI conference was the standing ovation that Ian received from a packed room of SAS-L members as he was inducted as the first member of the SAS-L Hall of Fame. We DCSUG folks, of course, have also been fortunate to benefit from Ian's long-running SAS Talk newsletter column and his many presentations at our meetings. The text of the award certificate signed by the members of the SAS-L SUGI 25 Planning Committee aptly summarizes Ian's contributions over the years:

As the first recipient of this honor, Ian is recognized for the consistently professional and in-depth responses that he invariably amplifies with supportive examples. As one nominator said, "Everyone knows that in SAS, Ian is the Master of the Universe." No single contributor on SAS-L has provided so much help to so many people. Ian's acute sense of what is useful and potentially practical combined with his ingenuity and willingness to provide examples make his responses invaluable and incomparable. But perhaps Ian's greatest gift is his passion as a teacher -- which he has so generously shared with the members of SAS-L over the years. The SAS-L community has indeed been fortunate in having Ian as a long-standing sustaining contributor. Thank you Ian.



### Other local SUGI winners

The following persons from the local area won awards at SUGI for their presentations. Congratulations to all of you!

Hung X. Phan, U.S. Bureau of the Census, Building an Audit and Tracking System Using SAS/AF Software and SCL (Honorable Mention, Applications Development)

Michael Raithel, Raithel Consulting Services, Transferring Your Mainframe SAS Programs to Your PC in Three Easy Steps (Honorable Mention, Coders' Corner)

Dianne Rhodes, Westat, Migrate to ORACLE? I Need My SAS Software! (Winner, Data Warehousing)

Rick Mitchell, Westat, Forcing SAS/GRAPH Software to Meet My Statistical Needs: A Graphical Presentation of Odds Ratios (Winner, Information Visualization)

Rick Mitchell, Westat, Odds Ratios and 95% Confidence Intervals for the Association of Needle Exchange Program Participation with Transmission of HIV Through IV Drug Use (2nd Place, Graphical Presentation Category of Information Visualization Competition)

Linda Tompkins and Arlene Siller, Centers for Disease Control and Prevention, Analyzing Complex Sample Survey Data: A New Beginning (2nd Place, Posters)

Joseph Mirabal, America Online Inc., and Zhengyu Wang, Sybase Inc., Using SAS Software for Exception Analysis of Sybase Performance (Winner, Systems Architecture)

## Calendar of Meetings and Events

This feature is meant to give users an idea of some of the activities of area users groups and special interest groups, as well as regional and international groups. If your group would like to be regularly included in this feature, please call Mike Rhoads or one of the DCSUG officers. There is a DCSUG directory with phone, fax, and E-mail contact information elsewhere in this newsletter.

### June

13 DCSUG DC SAS Users Group,  
General Meeting  
Time: 8:30 am - 12:00 noon  
Site: Bureau of Labor Statistics  
2 Massachusetts Ave. N.E.  
Program: See front page  
announcement  
Contacts:  
Mike Rhoads at (301) 251-4308  
RhoadsM1@Westat.com  
Peter Knapp at (202) 482-1359  
peter\_knapp@ita.doc.gov

### September

12 DCSUG DC SAS Users Group,  
General Meeting  
Time: 8:30 am - 12:00 noon  
Site: Bureau of Labor Statistics  
2 Massachusetts Ave. N.E.  
Program: TBA

24-26 NESUG NorthEast SAS Users  
Group  
Site: Adam's Mark Hotel  
Philadelphia PA  
Contacts:  
Erik Larson at (703) 568-3083  
nesug2000@aol.com  
Alexa Parliyan at (212) 733-6584  
parlia@pfizer.com

### October

15-17 SESUG 2K SouthEast SAS Users  
Group  
Site: Adam's Mark Hotel  
Charlotte NC  
Contacts:  
Maribeth Johnson at (706) 721-3785  
maribeth@stat.mcg.edu  
Philip J. d'Almada at (404) 639-6120  
pxd2@cdc.gov

### December

5 DCSUG DC SAS Users Group,  
General Meeting  
Time: 8:30 am - 12:00 noon  
Site: Bureau of Labor Statistics  
2 Massachusetts Ave. N.E.  
Program: TBA

### Other Groups

CENSUG Census SAS Users Group  
Contact: Debbie Gattuso at (301) 457-1687

MDSUG Maryland SAS Users Group  
Contact: Mr. R.H. Miller, (410) 740-4229  
refa09a@prodigy.com

NCHSSUG National Center for HealthStatistics  
SAS Users Group  
Contacts: Arlene Siller at (301) 458-4498  
asiller@cdc.gov  
Linda Tompkins at (301) 436-7022

NIHSUG National Institutes of Health SAS  
Users Group  
Contact: Ray Danner at (301) 496-6037

NOVASUG Northern Virginia SAS Users Group  
Contact: Joe Mirabal at (703) 265-4620  
jmmirabal@aol.com

VASUG Virginia SAS Users Group  
(Richmond area)  
Contact: Beth Wilson at (804) 967-1000  
beth.wilson@capitalone.com

## NESUG 2000 News Flash

In September, the NorthEast SAS Users Group (NESUG) comes to Philadelphia. From September 24-26, join conference co-chairs Erik Larsen and Alexa Parliyan and many other SAS users from all over the Northeast at the Adams Mark Hotel.

A first for NESUG will be to hold the opening session outside the hotel - at the Franklin Institute Science Museum, a short shuttle bus ride from the hotel. Ben Franklin has already been lined up for the entertainment portion of the evening.

Erik and Alexa are bringing back the popular Hands-On Workshops first introduced at NESUG '99. Absent for several years, the Pharmaceuticals section is returning as a nod to the concentration of pharmaceutical SAS users in the greater Philadelphia area.

In addition to these two sections, 7 more sections will be offered. These are anchored by Advanced Tutorials and Beginning Tutorials (co-chaired by HASUG's own Ralph Leighton). General programming tips and techniques will be found in Applications Development (co-chaired by DCSUG's own Chris Roper), SAS Solution Tracks (co-chaired by DCSUG's own Larry Altmayer), and the ever popular Coder's Corner, which features SAS nuggets in presentations of up to 10 minutes in length. The Internet/Intranets, the Web, and SAS section is also returning. And Posters (co-chaired by DCSUG's own Michael Yu) and Statistics and Data Mining round out the offerings.

There are many ways to volunteer for the conference. As this article was going to press, the registration booklet is being finalized, but there are still many ways to be part of the conference volunteer team. Being part of the registration staff is perfect for meeting other SAS users as you hand out the conference registration materials. And you would make DCSUG's own Linda Atkinson and Sue Douglass, this year's registration co-chairs, very happy!

If you know that you will be concentrating on attending papers in a particular section, volunteer as a session coordinator to help the

section chairs keep the section running smoothly. For those top-notch SAS users who like to solve problems, consider volunteering as a code clinic expert in your field of expertise.

Put September 24-26 on your calendar. It will be well worth your time. For more information, consult the NESUG 2000 Web page at:

<http://www.nesug.org/2000>

OR contact the conference co-chairs:

Erik Larsen - [larsen770@aol.com](mailto:larsen770@aol.com) (703) 568-3083  
Alexa Parliyan - [parlia@pfizer.com](mailto:parlia@pfizer.com) (212) 733-6584

## VASUG

The Virginia SAS Users Group will hold it's first meeting in the year 2000 on Wednesday, May 17, at the Virginia Power building in West Richmond (the same site as September's meeting).

You do not need to be a member to attend, and you can come for just part of the day if you'd prefer. The Virginia Power building is at 5000 Dominion Blvd. This is across Broad Street from the Card Center, at the end of Dominion Blvd. Stay left when the road forks toward the end and look for the Visitors sign near the flag poles. Park anywhere.

We will be having 2 presentations of popular topics from SUGI, and one talk by a representative of SAS Institute.

The agenda:

9:30-10:00 registration and greetings

10:00-10:15 call to order, introductions and announcements

10:15-11:30 Advanced DATA Step Techniques (by Neil Howard at SUGI 25, presented by Carrie Mariner)

11:30-1:00 lunch and social networking

1:00-2:00 ODS, V8, 8.1 and 8.2 (by Glen Walker, SAS Institute)

2:00-2:15 break

2:15-3:15 Developing a SAS Application Using Microsoft Excel (by John Xu at SUGI 25, presented by Mark Jordan)

3:15-3:45 Member Forum

The VASUG website has current meeting information, so check out <http://vasug.org> as the meeting day approaches for directions and any updated information.



## Membership Application/Renewal

Date: \_\_\_\_\_  
Name: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
City, \_\_\_\_\_ State, \_\_\_\_\_  
Zip \_\_\_\_\_  
Phone # \_\_\_\_\_ Fax # \_\_\_\_\_  
E-Mail: \_\_\_\_\_  
Preferred mode of contact (check one):  
 Fax  e-mail  
SAS Version(s) \_\_\_\_\_  
SAS Product(s): \_\_\_\_\_  
Operating System(s) \_\_\_\_\_  
Check one:  
 Individual membership for 1 year is \$10.00  Corporate sponsorship for 1 year is \$50.00  
Please indicate a contact person for Corporate Sponsorships!  
\_\_\_\_\_  
Check one:  
 New membership  Renewal membership

Mail to:

Washington DC SAS Users Group  
P.O. Box 44670  
Washington, DC 20026-4670

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## SAS Programmer/Analyst Position

**MedImmune, Inc.**, a biotechnology firm located in Gaithersburg, MD is seeking a SAS Programmer/Analyst to support the work of the Director of Pharmacoeconomics and outcomes Research. The candidate will monitor, acquire, and analyze large health data sets for information on the incidence, burden, and cost of disease as well as the cost-effectiveness of alternative therapies.

Requirements include: undergraduate degree in a health or social science or a quantitative field. MA in economics, health policy, public health, epidemiology, or biostatistics with course work in biostatistics or statistics required. Prefer at least two years experience in computer programming large complex health data sets using SAS or SPSS. Exposure to SUDAAN or Stata valued. Must be able to conduct Proc Step and Proc Sort functions, conduct tests of significance and regression analysis. Familiarity with MEDLINE and ability to think with data and write well a must. Interested candidates should send a current resume, salary history, and writing samples to:

Shelah Leader, Ph.D.,  
Director of Pharmacoeconomics and Outcomes Research

**MedImmune Inc.**  
35 Watkins Mill Rd.  
Gaithersburg, MD 20878  
fax 301-527-4215  
(Dr. Leader's phone 240-632-4169)

## 2000 Meetings

Plan ahead and mark your calendars now. The DCSUG will meet on the following dates in 2000: June 13, September 12, December 5. Meeting times and locations to be announced. If at any time you have a question about an upcoming meeting or other DCSUG information, call one of the members of the Steering Committee.

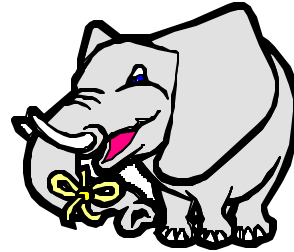
**You're Invited**

**To visit the DCSUG home page**

**The URL for the DCSUG home page on the Web:**

**<http://www.ita.doc.gov/industry/otea/dcsug>**

## Remember to Join DCSUG!!!



Don't forget to renew your DCSUG membership for 2000. Dues are used to defray the costs of producing and mailing the newsletter and provide refreshments at our meetings. You'll make sure that you keep receiving the newsletter and keep DCSUG going. If you have not joined DCSUG, now is a great time to do so. Joining DCSUG is as easy as completing the membership form included in this newsletter. Individual memberships are only \$10; corporate memberships are \$50.

Washington DC SAS Users Group  
P.O. Box 44670  
Washington, DC 20026-4670