



PhilaSUG newsletter



Winter 2018 Meeting Announcement

PhilaSUG Winter 2018 Meeting Wednesday, March 7, 2018

The Philadelphia Area SAS Users Group Winter Meeting will be on Wednesday, March 7, 2018 at 1:00 PM, and will be hosted by Dornsife School of Public Health at Drexel University, New College Building, 245 N 15th St., Philadelphia, PA 19102. All visitors must present an ID when they come in the building. A map, detailed driving, and parking instructions are available later in the newsletter.

Registration will begin at 12:15 PM. The meeting will commence at 1 PM. Membership for the year is \$30. There are no other fees for attending PhilaSUG meetings. This year we will be accepting cash, check (made out to "PhilaSUG"), or credit/debit card (this charge will show up on your credit/debit card statement as paid to "Michael Davis / PhilaSUG"). If you are a student of Drexel, fees for this meeting will be waived, but please complete the meeting sign-up form so that we can get a better food count. Receipts will be available at registration time.

Abstracts and bios can be found later in this newsletter.



Important – For Drexel security and in order to obtain an accurate food count we are asking all attendees to please complete the required [Meeting Attendee Sign-up Form](#) by **March 4th**.

Agenda

We thank our host for providing lunch and break refreshments

12:15-1:00	Registration and lunch
1:00-1:10	Opening Remarks
1:10-2:00	An Introduction to the SAS MACRO Language — <i>Jonas Bilenas</i>
2:00 -2:30	Date with Macros — <i>Alex Chaplin</i>
2:30-2:45	Break and refreshments
2:45-3:15	How to Beautify Your Report — <i>Haibin Shu</i>
3:15-3:45	Thinking Outside the SAS Box: UNIX Tools — <i>David Horvath</i>
3:45-4:15	Rapid Rolling Windows Regressions via Home-Made SSCP — <i>Mark Keintz</i>
4:15-4:30	Raffle Prizes and closing Remarks

The presenters and the PhilaSUG Executive Committee will adjourn for dinner at a nearby restaurant when the meeting concludes. You are invited to join us. The location will be announced at the meeting.

About Our Host

Drexel is a comprehensive global research university ranked among the top 100 in the nation. With approximately 26,000 students, Drexel is one of America's 15 largest private universities. Drexel has built its global reputation on core achievements that include: leadership in experiential learning through Drexel Co-op; a history of academic technology firsts; and recognition as a model of best practices in translational, use-inspired research.

Dornsife School of Public Health at Drexel University is committed to a blended academic model of science and practice that fosters scientific discovery shaped by a mission to improve the health of the public. We are recognized for our academic excellence—nationally and internationally. In addition to teaching and research activities specifically in epidemiology and biostatistics, the Department supports second-year MPH concentrators majors in Epidemiology & Biostatistics, as well as students in the MS in Biostatistics, MS in Epidemiology, PhD in Epidemiology and, starting fall 2018, the PhD in Biostatistics program.. Drexel students acquire a mastery of core public health topics, while developing: critical thinking skills; an interdisciplinary approach to problem solving; and a commitment to self-directed, lifelong learning. Our degree programs prepare students for careers as public health researchers, planners and practitioners, as well as for entry into doctoral programs. As part of a multidisciplinary research-intensive university, students can access a wide range of schools for coursework research and academic exchange. We regularly collaborate with other schools at Drexel in our design of coursework and degree programs. We also provide integrated research and learning opportunities across the university.

The mission of the Department of Epidemiology and Biostatistics within the School of Public Health is to apply, develop, and teach approaches to understanding the distribution and determinants of disease in populations in order to generate knowledge that can be used to improve public health. The **epidemiology** program focuses on descriptive and analytic approaches used to understand the complex causes of major public health problems and to develop effective strategies to prevent them. The **biostatistics** program focuses on the development and application of theory and methods in the collection, analysis and interpretation of data used in public health and other biomedical sciences. In addition to teaching and research activities specifically in epidemiology and biostatistics, the Department supports second-year MPH concentrators majors in Epidemiology & Biostatistics, as well as students in the MS in Biostatistics, MS in Epidemiology, PhD in Epidemiology and, starting fall 2018, the PhD in Biostatistics program.

The Department is committed to collaborative inquiry with colleagues in related disciplines and to fostering thoughtful implementation of epidemiology and biostatistics methods in public health practice. Research areas include aging; autism spectrum disorders; biostatistical methods; cancer; cardiovascular disease; data analysis; diet and heart disease; environmental / built environment; environmental risk factors for diseases; neurodevelopmental disorders; infectious disease & prevention; nutrition, physical activity; sampling and survey modeling; social and psychiatric and obesity. Many opportunities are available for individual and companies who wish to partner with graduate students on internship or projects, such as the Data Analysis Project completed by MS students or the Community Based Master's Project Integrated Learning Experience done by MPH students. More information about collaboration or degree programs can be discussed with Mary Genevieve Carty, MHEd, Program Manager, Dept. of Epidemiology & Biostatistics at mary.carty@drexel.edu.

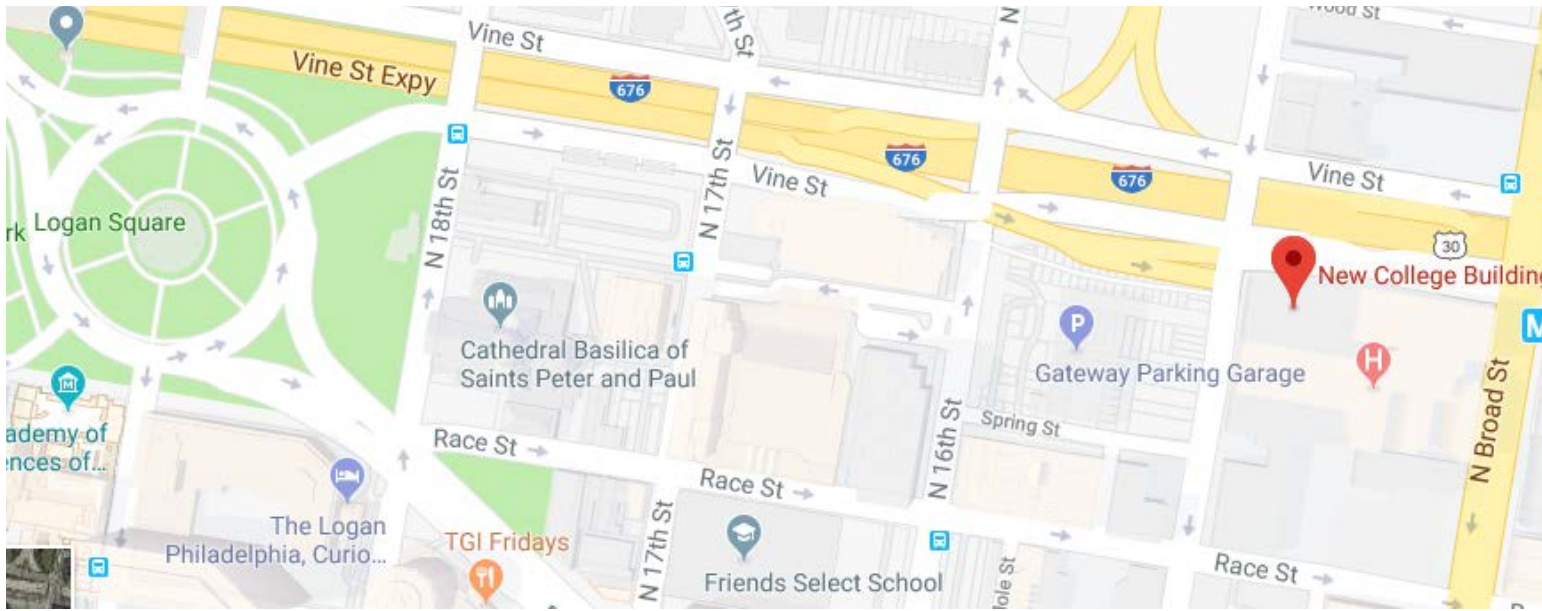
Directions to Our Host Site

Our meeting will be held at Drexel University School of Public Health, New College Building (Building 5 on the campus map), Geary A auditorium. The building is at 245 N 15th St., Philadelphia, PA 19102. The door to enter is on 15th Street, near the corner of 15th and Vine. It is only 3 blocks from Suburban Station and 1 block from the Race-Vine Street stop on the Broad Street Line.

There are numerous bus routes that stop near the building on Broad St. For more information on bus routes, please go to the SEPTA website.

There is a parking garage across from the building.





**Please consider using public transit (See following the driving directions)
Driving Directions to Drexel Center City Campus:**

- Directions to campus using [Google Maps](#).

• FROM NEW YORK AND THE NORTHEAST CORRIDOR

- Take the New Jersey Turnpike south to Exit 4 (Camden/Philadelphia).
- Take NJ-73 North to NJ-38 West and follow signs to Philadelphia and the Ben Franklin Bridge.
- Cross the Ben Franklin Bridge, and stay in the left lane, following signs for I-676 West.
- Proceed on I-676 West to the Broad Street exit.
- Take the Broad Street exit and proceed south on 15th Street to Race Street. The New College Building is located on the corner of 15th and Vine Streets.

• FROM THE NORTH

- Take I-95 South to the I-676/Central Philadelphia exit.
- Proceed on I-676 West to the Broad Street exit.
- Take the Broad Street exit and proceed south on 15th Street to Race Street. The New College Building is located on the corner of 15th and Vine Streets.

• FROM THE WEST

- Take the Pennsylvania Turnpike to Exit 326 (Valley Forge).
- Proceed on I-76 East to I-676 East.
- Take the Broad Street exit and proceed south on 15th Street to Race Street. The New College Building is located on the corner of 15th and Vine Streets.

FROM THE AIRPORT AND POINTS SOUTH

- Take I-95 North to I-676 West (left-hand exit).

- Take the Broad Street exit and proceed south on 15th Street to Race Street. The New College Building is located on the corner of 15th and Vine Streets.

PUBLIC TRANSPORTATION

For the latest schedules and information, please visit:

- [SEPTA – Southeastern Pennsylvania Transportation Authority](#)
- [Amtrak](#)
- [New Jersey Transit](#)
- [PATCO – Port Authority Transit Corporation](#)

From Philadelphia International Airport

Take SEPTA's R1 train to Suburban Station (16th and JFK Boulevard), which is four blocks from Drexel's Center City Campus.

Amtrak

Amtrak trains stop at 30th Street Station (30th and Market Streets). From there take SEPTA's Market-Frankford Line (the Blue Line) one stop to 15th and Market Streets. Then walk three blocks north to Drexel's Center City Campus.

SEPTA Regional Rail

All Regional Rail trains stop at Suburban Station (16th and JFK Boulevard), which is four blocks from Drexel's Center City Campus.

SEPTA Subways and Trolleys

The Market-Frankford Line (the Blue Line) and all trolley trains (the Green Lines) stop at 15th and Market Streets. From there, walk three blocks north to Drexel's Center City Campus. Alternatively, take the Broad Street Line to the Race-Vine stop.





To check for cancellations, check www.Cancellations.com after 10 AM on the day of the meeting for any last minute cancellation notices. In the “Search for Cancellations” section you only need enter “PhilaSUG” in the “Org Name:” box and click on the **Search** button. If the next screen says: “**No Decision Has Yet Been Made to Cancel the March 12 PhilaSUG Meeting**” we are still on!

PhilaSUG Executive Committee

Michael Davis, President
John Cohen, Membership Coordinator
Diane Foose, Treasurer
Robert Schechter, Newsletter Editor, and Web Master
Jonas V. Bilenas
Barry Cohen
Mark Keintz
Haibin Shu
Max Cherny
David Horvath
Steve Rhoades

The PhilaSUG EC team appreciates the efforts of all contributors, without whom this newsletter would not be possible. We are always looking for volunteers to contribute content to the quarterly newsletter. If you have ideas or suggestions for the newsletter, please share them with us. We would love to hear them!

Host Sites Wanted

We continuously seek host sites for future PhilaSUG meetings. There is not a lot of work involved, and it is a great way to put your company on the local SAS map. We need your help with this. If your company would like to host a meeting, within reasonable geographic proximity to Philadelphia, PhilaSUG would be grateful if you would contact Michael Davis at michael.davis@alumni.duke.edu.

E-mail Announcements



PhilaSUG-L is a low volume, announcement-only e-mail notification service provided free of charge to all members who wish to subscribe. In order to sign up for this service, you need only send a blank e-mail message to PhilaSUG-L-subscribe@onelist.com. Note that you can subscribe as many times with as many different e-mail addresses as you wish to have the e-mail sent to; e.g., home and office.

PhilaSUG Web Site

Our site on the World Wide Web always contains the latest information concerning upcoming meetings, SAS training and seminars, links to SAS related hot topics, and local SAS job opportunities.



Visit us regularly at: <http://www.PhilaSUG.org>

Presenters Wanted



You are invited to be a presenter. The PhilaSUG Executive Committee requests presentation abstracts from individuals who wish to participate actively in our meetings by presenting various SAS topics in the form of delivered papers or posters. This is a great way to share your knowledge with others, to brush up your presentation prior to delivery at SGF or some other major conference, and to gain confidence as a speaker. If this is of interest to you, please use the online abstract submission form found on our web site. Presentations can be from a few minutes to 50 minutes. Your abstract must be submitted online at our web site.

A Thank You



The PhilaSUG Executive Committee wishes to thank Mary Genevieve Carty, MHEd, Program Manager, Dept. of Epidemiology & Biostatistics, Drexel University, School of Public Health, for arranging the hosting of this meeting. In addition, we wish to thank two members of our Executive Committee, Jonas V. Bilenas for speaker/program coordination and Mark Keintz for site coordination.



Paper Abstracts

An Introduction to the SAS MACRO Language

Jonas Bilenas, Barclays Bank

This presentation will explore the versatility of the SAS MACRO language to automate code. We will look at MACRO concepts including MACRO VARIABLES, SYSTEM MACRO VARIABLES, MACRO CODE, MACRO LOOPING, capturing statistics into MACRO VARIABLES, some MACRO FUNCTIONS (including %STR, %SCAN, %EVAL, %SYSEVALF, %SYSFUNC) and storing MACROS in SASAUTOS and compiled MACRO catalogs.

Jonas Bilenas has been using SAS form more than 30 years in the field of Consumer Risk Management. He has presented at many Local, Regional, and International User Groups and is currently active in the PhilaSUG Executive Committee.



Date with Macros

Alex Chaplin, Bank of America

This presentation will demonstrate the use of macros to easily increment and decrement dates in different date formats for a specified number of months ahead of and prior to a defined start date. This greatly simplifies the extract of data across multiple month ends for multiple runs and facilitates automation of extract processes. Plug in the desired month end start date, the number of months to extract prior and after the start date and whether to append to any previously extracted data.

Mr. Chaplin has been using SAS since 2007. He is a SAS Certified Base and Advanced SAS Programmer. Mr. Chaplin has over 25 years of experience in Information Technology working a range of roles from programmer to technical project manager across a range of industries including travel, manufacturing, chemical, retail and financial in the UK, Spain and the US.

How to Beautify Your Report

Haibin Shu, AccuClin Global

SAS ODS not only makes PROC REPORT output look better but also presents information more effectively. The presenter will demonstrate how to use the commonly-used-features such as text aligning, word wrapping, indenting, pagination etc. based on real examples. The objective of this presentation is to show how these features can be pleasantly applied in daily work.

Haibin Shu is an experienced clinical data professional, a SAS User for over 20 years, and the founding principal of AccuClin Global that passionately supports clinical research programs and regulatory submissions.



Thinking Outside the SAS Box: UNIX Tools

David Horvath

What do you do when you get a file that is too large (too wide a record or too many records or both) to easily view? How do you know the CSV or TAB-delimited file really is structured correctly? When you get a fixed format file, how do you figure out what the field at position 468 really looks like (what data it contains)? How do you deal with files that do not read correctly, or worse, break the engine you're using?

There are a number of UNIX/Linux tools to help resolve those issues. Those same tools are also available under Windows with add-ons from Microsoft and other sources. They are included with the MAC OSX operating system!

This session will review a few of these commands including live demos under Windows. These examples come from real life problem solving.

David is an IT Professional who has worked with SAS, since the late 1980's largely as a data manipulation (4GL/ETL) and analysis tool. He has presented at PhilaSUG, SESUG, and, shortly, SGF; he has presented at other user groups and organizations (workshops and seminars) in Australia, France, England, the US, and Canada. His holds a Masters in Organizational Dynamics from UPENN, spent most of his career in consulting, and currently works for a regional bank in Risk Analytics Infrastructure in the Philadelphia area. He has several books to his credit (none SAS-related) and is an Adjunct Instructor covering IT topics.

Rapid Rolling Windows Regressions via Home-Made SSCP

Mark Keintz, Wharton Research Data Services

Although the technique of applying regressions to rolling time windows is common in financial research, SAS® offers no routines for directly performing this analysis. The natural approach to this problem is to create a data set with every window completely populated, succeeded by PROC REG with a BY statement, which can quickly result in a very large dataset and poor performance. However, the ability of PROC REG to accept sums of squares and cross-products (SSCP) removes much of the performance-sapping burden of a large intermediate data set.

The presentation will show how to efficiently generate rolling window SSCP data ready for PROC REG, using the DATA step and PROC EXPAND (part of the SAS/ETS product). Time permitting, we'll also demonstrate how to use PROC FCMP (in BASE SAS) as a substitute for PROC EXPAND.

Mark Keintz has been using SAS® since it was documented in one book.

His interests are largely in development of applications for financial research and education, addressed in several presentations at SAS Global Forums and various regional SAS user groups. Mark's primary SAS expertise is in DATA step programming, Hash programming techniques, efficient use of large data sets, and macro programming.



Future Meetings and SAS Events



SAS Global Forum 2018

Where: Denver, CO

When: Sunday, April 8-11

Meeting Facility: Colorado Convention Center



PharmaSUG 2018
April 29 - May 2,
Seattle, Washington



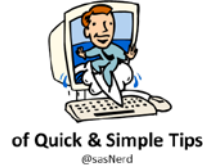
Next PhilaSUG Meeting

To Be Announced

PhilaSUG Spring 2018 Meeting

Host: TBA

When: TBA,
but targeting Mid June



SAS Tip: Determining the Size of a Data Set

Kirk Paul Lafler, Software Intelligence Corporation

When developing SAS® data sets, program code and/or applications, efficiency is not always given the attention it deserves, particularly in the early phases of development. Since data sizes and system performance can affect a program and/or an application's behavior, SAS users may want to access information about a data set's content and size. To access, for example, how much disk space a data set is using, users can make a few calculations and/or learn how to access metadata content to obtain the information to this important information. This tip explores a few ways to determine, or estimate, the size of a data set – a question many users are curious about when discussing SAS performance and tuning techniques.

Using PROC SQL and DICTIONARY.TABLES

The SAS System collects valuable information (known as “metadata”) about all known SAS libraries, data sets (tables), catalogs, indexes, macros, system options, views and a collection of other “read-only” tables called Dictionary tables and SASHELP views. One specific Dictionary table, TABLES, and its SASHELP view equivalent, VTABLE, contains details about a SAS session's data sets. In the following PROC SQL code, the specification of a PROC SQL SELECT-clause is illustrated to access the contents of four columns found in the TABLES Dictionary table, specifically LIBNAME, MEMNAME, MEMTYPE and FILESIZE to display the size of the CARS data set.

PROC SQL and Dictionary.TABLES:

```
PROC SQL ;
  TITLE 'Filesize for CARS Data Set' ;
  SELECT LIBNAME,
         MEMNAME,
         FILESIZE FORMAT=SIZEKMG.,
         FILESIZE FORMAT=SIZEK.
  FROM DICTIONARY.TABLES
  WHERE LIBNAME = 'SASHELP'
         AND MEMNAME = 'CARS'
         AND MEMTYPE = 'DATA' ;
QUIT ;
```

Results:

Filesize for CARS Data Set

Library Name	Member Name	Size of File	Size of File
SASHELP	CARS	192KB	192K

Analysis:

As shown in the results, above, the CARS data set filesize is 192KB. **Note:** When the SIZEKMG. format is specified in a format= option, SAS determines whether to apply **KB** for kilobytes, **MB** for megabytes, or **GB** for gigabytes; and divides the numeric filesize value by one of the following values:

KB	1024
MB	1048576
GB	1073741824

Using PROC PRINT and SASHELP.VTABLE

In the next example, the specification of a PROC PRINT is illustrated to access the contents of three columns found in the VTABLE SASHELP view, specifically LIBNAME, MEMNAME and FILESIZE to display the size of the CARS data set.

PROC PRINT and SASHELP.VTABLE:

```
PROC PRINT DATA=SASHELP.VTABLE NOOBS ;
  VAR LIBNAME MEMNAME FILESIZE ;
  WHERE LIBNAME = 'SASHELP'
        AND MEMNAME = 'CARS' ;
  FORMAT FILESIZE SIZEKMG. ;
  TITLE 'Filesize for SASHELP.CARS Data Set' ;
RUN ;
```

Results:

Filesize for SASHELP.CARS Data Set

libname	memname	filesize
SASHELP	CARS	192KB

Using DATA _NULL_, SASHELP.VEXTFL and CALL SYMPUTX

In the final example, a DATA _NULL_ is illustrated to access the contents of the VEXTFL SASHELP view with a FILENAME statement. An assignment statement is specified to calculate the FILESIZE value for the size of the CARS data set. The CALL SYMPUTX left justifies and trims the trailing blanks from the numeric FILESIZE value of 196608.

DATA _NULL_ and SASHELP.VEXTFL:

```
filename myfile 'C:\Program Files\SAS9.4\SASFoundation\9.4\CORE\SASHELP\Cars.sas7bdat' ;
DATA _NULL_ ;
  SET SASHELP.VEXTFL (WHERE=(FILEREf='MYFILE')) ;
  /* Calculate the Filesize in MB */
  FILESIZE = FILESIZE / (1024 ** 2) ;
  CALL SYMPUTX ('FILESIZE', FILESIZE) ;
RUN ;
```

Results:

	fileref	xpath	xengine	modate	filesize	level	directory	exists	temporary
1	#LN00002	TERMINAL	TERMINAL	01JAN60:00:00:00	0	0	no	no	yes
2	#LN00004	C:\Users\KPL\Documents	DISK	28MAR17:03:51:46	0	0	yes	yes	yes
3	#LN00006	C:\Users\KPL\Desktop	DISK	27MAR17:20:45:09	0	0	yes	yes	yes
4	MYFILE	C:\Program Files\SAS9.4\SASFoundation\9.4\CORE\SASHELP\Cars.sas7bdat	DISK	19JUN13:22:57:13	196608	0	no	yes	no
5	#LN00001	C:\Program Files\SAS9.4\SASFoundation\9.4\core\sasmsg	DISK	28APR14:03:21:58	0	1	yes	yes	yes
6	#LN00001	C:\Program Files\SAS9.4\SASFoundation\9.4\accelmva\sasmsg	DISK	28APR14:03:21:58	0	2	yes	yes	yes
7	#LN00001	C:\Program Files\SAS9.4\SASFoundation\9.4\access\sasmsg	DISK	28APR14:03:21:58	0	3	yes	yes	yes
8	#LN00001	C:\Program Files\SAS9.4\SASFoundation\9.4\cmp\sasmsg	DISK	28APR14:03:21:58	0	4	yes	yes	yes
9	#LN00001	C:\Program Files\SAS9.4\SASFoundation\9.4\spdsclient\sasmsg	DISK	28APR14:03:21:58	0	5	yes	yes	yes

About the Author of the SAS Tip: *Determining the Size of a Data Set*



Kirk Paul Lafler has been using SAS since 1979 and is consultant and founder of Software Intelligence Corporation. He is a SAS Certified Professional, application and tool developer, provider of IT consulting services, trainer to SAS users around the world, mentor, and sasCommunity.org emeritus Advisory Board member. As the author of six books including Google® Search Complete (Odyssey Press. 2014); PROC SQL: Beyond the Basics Using SAS, Second Edition (SAS Press. 2013); PROC SQL: Beyond the Basics Using SAS (SAS Press. 2004); Kirk has written more than five hundred papers and articles, been an Invited speaker and trainer at four hundred-plus SAS International, regional, special-interest, local, and in-house user group conferences, educational forums, and meetings, and is the recipient of 23 “Best” contributed paper, hands-on workshop (HOW), and poster awards.

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Twitter: @sasNerd

Enhance your SQL programming skills with [PROC SQL: Beyond the Basics Using SAS®, Second Edition!](#)
Learn how to perform better Google® searches with the book the pros use, [Google® Search Complete!](#)

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Philadelphia Area SAS User Group (PhilaSUG)

Membership Form

Membership only needs to be paid once per calendar year. Our membership year runs from Jan. 1st through Dec. 31st. Dues for the year are \$30. Membership entitles you to all PhilaSUG meetings free of charge. Your RSVP is all that's needed, otherwise please complete this form (please print) and return it to the registration desk of any PhilaSUG meeting (do NOT mail it). An attached business card helps legibility and is appreciated. This year we will be accepting cash, check (made out to "PhilaSUG"), or credit/debit card (this charge will show up on your credit/debit card statement as paid to "Michael Davis / PhilaSUG"). Please print.

Name: _____

Affiliation: _____

Day Time Phone Number: () _____ - _____ ← Only needed if paying by Credit/Debit Card

***Privacy Statement** - Local SAS User Groups are requested to share their membership/ mailing list with SAS Institute on an annual basis. We respect your privacy and will never rent, sell or trade your personal information provided with any other group or individual and the information provided will only be used for PhilaSUG mailings. We will not share your email address with SAS unless you Opt In below.*

Check this box (Opt In) if you agree to allow us to share *your email address with SAS.*

PhilaSUG-L is a low volume, announcement-only, e-mail notification service provided free of charge. By subscribing you'll be notified of the latest information about upcoming events, especially meeting announcements. By listing your e-mail address below you will be added to the electronic mailing list, you can cancel at any time.

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(Please be sure to clearly distinguish a dash from an underscore)