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Insurance Designation Randomization Application

or

How to Automate Your Bragging

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ABSTRACT

Having taken over 65 insurance courses over the course of 25 year home office career, I have acquired 15 insurance designations to list behind my name. This causes problems because they never fit neatly on one line -- even if only the initials are used -- and to some people, the list of designations appears ostentatious.

To solve this problem, I have developed SAS code to randomly select only five of the designations at any one time to place behind my name in my emails. Thus the list appears to be fresh with each email and I do not appear to be bragging (well, not too much).

This presentation will include the topics of random selection, placing this output in a macro variable via CALL SYMPUT and calling the macro variable in the email message.

INSPIRATION

This paper came about because of a beery symposium with three friends of mine: LeRoy Bessler, Ph.D., Daniel Fuhrmann, Ph.D., and Douglas Thompson Ph.D. One of them (I will not disclose his name) mentioned that out of the four of us, I was the odd man out since I did not have a Ph.D.

Even though there was no intent to harm, this comment did wing me a bit. To defend myself, I stated that had it not been for college coursework, I too would have a Ph.D. No need to berate me for a slight technicality. Besides, I have two bachelor's degrees and 15 professional insurance designations. That must count for something. Discounting quality, I have a 15 to one designation advantage over each one of them; collectively, a five to one advantage. So I win.

They agreed and since I was buying, they debated how best to showcase my designations. I mulled over what was said that night over the next few beers, er, I mean weeks and the result of their collective rumination is this paper.

INTRODUCTION

Too much of a good thing tends to be a problem. Such is the case with my professional insurance designations. I have collected 15 professional insurance designations over the course of my successful 25 year career. I am proud of my achievements and as is customary in the insurance field, I want them to follow my name. But having 15 sets of letters following my name can appear to some to be a tad bit pretentious. (Pretentious? Moi?). I want to showcase my achievements but I do not want to appear to be bragging. What to do?

In addition to appearing pretentious, if I list all of them, I have the problem of trying to have them fit in a nice little row without them wrapping around or be "continued on page two." It just looks messy. Something must be done.

DESIGNATION DRAMATIS PERSONÆ

Below is a list of my 15 insurance designations. As you can see, I remembered from my childhood the advice given by cereal boxes with regards to baseball card give-a-ways: Collect Them All.

- FALU: Fellow, Academy of Life Underwriting. The Academy of Life Underwriting.
- CEBS: Certified Employee Benefits Specialist. International Foundation of Employee Benefit Plans and the Wharton School of the University of Pennsylvania.
- CLU®: Chartered Life Underwriter®. The American College of Financial Services.
- ChFC®: Chartered Financial Consultant®. The American College of Financial Services.
- FLMI: Fellow, Life Management Institute. Life Office Management Association.
- REBC®: Registered Employee Benefit Consultant®. The American College of Financial Services.

- RHU®: Registered Health Underwriter®. The American College of Financial Services.
- FLHC: Fellow, Life and Health Claims. International Claim Association.
- AIAA: Associate, Insurance Agency Administration. Life Office Management Association.
- AIRC: Associate, Insurance Regulatory Compliance. Life Office Management Association.
- ARP: Associate, Research and Planning. Insurance Institute of America.
- RPA: Retirement Planning Associate. International Foundation of Employee Benefit Plans and the Wharton School of the University of Pennsylvania
- ACS: Associate, Customer Service. Life Office Management Association.
- AIT: Associate, Insurance Technology. Insurance Institute of America.
- HIA: Health Insurance Associate. Academy for Healthcare Management.

Many of these designations took years and seemingly countless study hours to complete. Some of the exams took several attempts to pass. Each of the courses that led to a designation is worth college credit at either an undergraduate or graduate level. All of them are home study courses.

PERMUTATIONS

It seems most sensible to select only a few of them. Five seems to be a reasonable number: equal parts bragging and moderation. So let's pick five. But which designations should I select?

I could select the five most important ones and then rank them in descending order. This seems reasonable: select the ones that are universally accepted as being the most prestigious. These would include the FALU, CEBS, CLU®, ChFC®, and FLMI. They would fit neatly behind my name and then I can ignore the rest of the lot.

Or I could consider different alternatives.

There is any number of groupings in which these designations can be listed. Each has its disadvantages and advantages. Here are the ones that were considered:

- Alphabetical order
- Ones that begin with a vowel
- Ones that have four letters
- Date that they were bequeathed
- Ones that are trademarked

SPECULATION

Still regardless of which ones are selected, some of them will be omitted. This could potentially lead to problems.

What happens if I ignore a certain designation that happens to be one of my co-worker's favorite ones? And what if this person is a Vice President? Perhaps it's the only one that he has and he is immensely proud of it. And here I do not even include it in the list of designations that appear behind my name. I can imagine what might be said about me behind my back (or worse, to my face) "Oh, he does not even consider my ACS worthy enough to list behind his name. Well, isn't he fancy?" Not in so many words perhaps, but a similar vein just the same.

After lengthy consideration of a solution to the problem, I thought why not just leave the selection and ranking of the designations to chance. That way, I am not making a conscious decision that could potentially offend someone by not listing their favorite designation. I could write some SAS code to pick five designations at random. I could make it that the list behind my email signature varies every time I ran the SAS code and sent out an email.

That way when one of my emails goes out to a Vice President who notices that the string of five designations does not include one of his favorites since it was not selected that day, and he suggests that I obtain whatever one his favorite one is, I can explain that I have created a really slick SAS job that randomly selects only five out of the 15 that I possess, his favorite being one of them. Impressed with my technical prowess, he says, "By the way, some of the executives and myself are trying to fill a foursome, do you golf?"

So why not consider leaving it to chance?

WORKPLACE SCENARIO

Why not, indeed?

At work, I am a member of a group that submits a SAS job on a daily basis. We share the workload and whoever submits the job for that particular day is responsible for reviewing the output and resolving any issues that may arise. Since we run these jobs on a daily basis, we have cleverly named this project “The Daily Job”.

Output from The Daily Job includes sending emails. We have developed code that sends out a personalized email signature that is dependent on who submitted the SAS job for that day. This is where I want my name to have the five randomly generated designations listed behind it. The Daily Job must determine who is running the job that day and if it is my turn, the code must generate a set of five randomly generated designations.

SOLUTION PARTIER UN

The first thing that I need to do is create a data set that includes all my designations. I created a WORK data set using an INPUT statement along with DATALINES. This is simple enough.

```
data work.desigs;

input name    $ 1-5;

datalines;
FALU
CEBS
CLU®
ChFC®
FLMI
REBC®
RHU®
FLHC
AIAA
AIRC
ARP
RPA
ACS
AIT
HIA
;

run;
```

SOLUTION PARTIER DEUX

We need some code to randomize the list. The following code will do nicely.

```
data work.rsubset_s_replace;
sampsize=5;
       obsleft=totobs;
       do while(sampsize>0);
              pickit+1;
                     if ranuni(0)<sampsize/obsleft then
                            do;
                                   set work.desigs point=pickit
                                   nobs=totobs;
                                   output;
                                   sampsize=sampsize-1;
                            end;
              obsleft=obsleft-1;
       end;
       stop;

run;
```

We want to select only five designations from the list of 15 so we set the sample size to five. This selection is done without replacement. Once the designation is selected for output, it is removed from the pool for further selection.

The RANUNI function returns a number that is generated from a uniform distribution. Each designation has an equal opportunity to be selected.

The RANUNI function generates streams of random numbers from an initial starting point, called the seed. If you use zero as the seed, the computer clock initializes the stream and the stream of random numbers is not replicable. For our purposes, we will use zero as the seed so that the list of five designations being duplicated is minimal. ($_{15}P_5$ or one in 360,360.)

In order to prevent continuous DATA step looping, you need to add a STOP statement when using the POINT= option. Then, because the STOP statement prevents the output of observations at the end of the DATA step, you also need to add an OUTPUT statement. Place the statement inside the DO loop in order to output each observation that is selected. If the OUTPUT statement were placed after the DO loop, only the last observation would be written.

SOLUTION PARTIER TROIS

Then we need to place the five randomly selected five designations into five macro variables. In a _NULL_ data set, I used a DO loop from one to five to create five macro variables using the CALL SYMPUT function. The variable 'ename' is concatenated with the DO loop sequence number to create five individual numbered macros variables called ename1, ename2, ename3, ename4, and ename5.

CALL SYMPUT assigns a value to each macro variable during the execution of a DATA step. When you use the SYMPUT routine, the macro variable is not actually created and assigned a value until the DATA step is executed. Therefore, you cannot successfully reference a macro variable that is created with the SYMPUT routine by preceding its name with an ampersand within the same DATA step in which it was created.

```
data _null_;

	set work.rsubset_s_replace;

	do i =1 to 5;
		if i = _n_ then do;
		call symput('ename' ||left(trim(put(_n_,1.))),name);
		end;
	end;

run;
```

SOLUTION PARTIER QUATRE

Then I create a macro to differentiate between my name and the names of my coworkers. The automatic macro variable SYSUSERID will determine which employee submits the code for that day. SYSUSERID is the User ID or login of the current SAS process. If I am submitting The Daily Job, then CALL SYMPUT places my email address into two user defined macro variables REPLYTO and SENDITTO. The user defined FnL_name is created in the same way.

```
%macro M_Replyto_list2;

	length email_address $40.
		FnL_name $40.;

	if		strip(&SYSUSERID) = ISXXXXX
		then do;
			email_address = "irv.snider@emailaddress.com";
				call symput("replyto",strip(email_address));
				call symput("senditto",strip(email_address));

			FnL_name = "Irvin Snider";
				call symput("Full_Name",strip(FnL_name));
		end;

	else if		strip(&SYSUSERID) = MMYYYYY
		then do;
```

```
                    email_address = "mark.menzie@emailaddress.com";
                           call symput("replyto",email_address);
                           call symput("senditto",email_address);

                    FnL_name = "Mark Menzie";
                           call symput("Full_Name",strip(FnL_name));
             end;

%mend M_Replyto_list2;

data _null_;
%M_Replyto_list2;
run;
```

SOLUTION PARTIER CINQ

Then I create two macros to differentiate between my name and the name of one of my coworkers.

My coworker has only three designations. Seeing no reason to reason to randomize these three, the designation string is hard coded in the macro M_signature;

```
%macro M_signature;

       put '</br> </br>';
       put '<i>';
       put '<font size="1.5" color="blue">';
       put 'Mark Menzie, ';
       put '<font size="1.25" color="black">';
       put '</i>';
       put 'FLMI HIA ACS';
       put '</br>';
       put 'SAS Certified Base Programmer';
       put '</br> </br>';

%mend M_signature;
```

However, My macro, IS_signature has a string of macro calls &ename1 &ename2 &ename3 &ename4 &ename5 that will place the five randomly generated designations behind my name. And of course, the font with my name is much larger.

```
%macro IS_signature;

       put '<br> </br>';
       put '<i>';
       put '<font size="6" color="black">';
       put 'Irvin Snider, ';
       put '</i>';
       put '<font size="4.25" color="black">';
       put "&ename1 &ename2 &ename3 &ename4 &ename5";
       put '<font size="3" color="black">';
       put '</br>';
       put 'SAS Certified Advanced Programmer';
       put '<br></br>';
       put '<font size="2.5" color="black">';
       put 'Assurant Health';
       put '</br> ';
       put 'Senior Actuarial Analyst';
       put '</br> ';
       put 'Product Implementation';
       put '</br> ';
       put '414-299-6979';
       put '</br> ';
       put '<a href="mailto:irv.snider@assurant.com">irv.snider@assurant.com</a>';
```

```
        put '</br> </br>';

%mend IS_signature;
```

SOLUTION PARTIER SIX

The macros IS_signature and M_signature will be called another macro that will be placed in the email code.

This code determines who submitted the job for that day by comparing the automatic macro &SYSUSEID with my and my co-worker's hard coded userID, i.e., ISXXXXX and MMYYYYY. If someone other than us two submits the code, a generic email message is sent out.

```
%macro M_sig_dist_list;

        if strip(&SYSUSERID)        = ISXXXXX
                then do;
                        put '<p></p>';
                        put "Thank you,";
                        %IS_signature;
                end;

        else if strip(&SYSUSERID)   = MMYYYYY
                then do;
                        put '<p></p>';
                        put "Thank you,";
                        %M_signature;
                end;

        else do;
                put '<p></p>';
                put "Thank you,";
                put 'The Implementation Team';
        end;

%mend M_sig_dist_list;
```

SOLUTION PARTIER SEPT

Here is the email code. The user define macros previously created are called with the ampersand. Automatice macro variables are also called to provide today's date and the name of the job. HTML code is used to make the email look attractive.

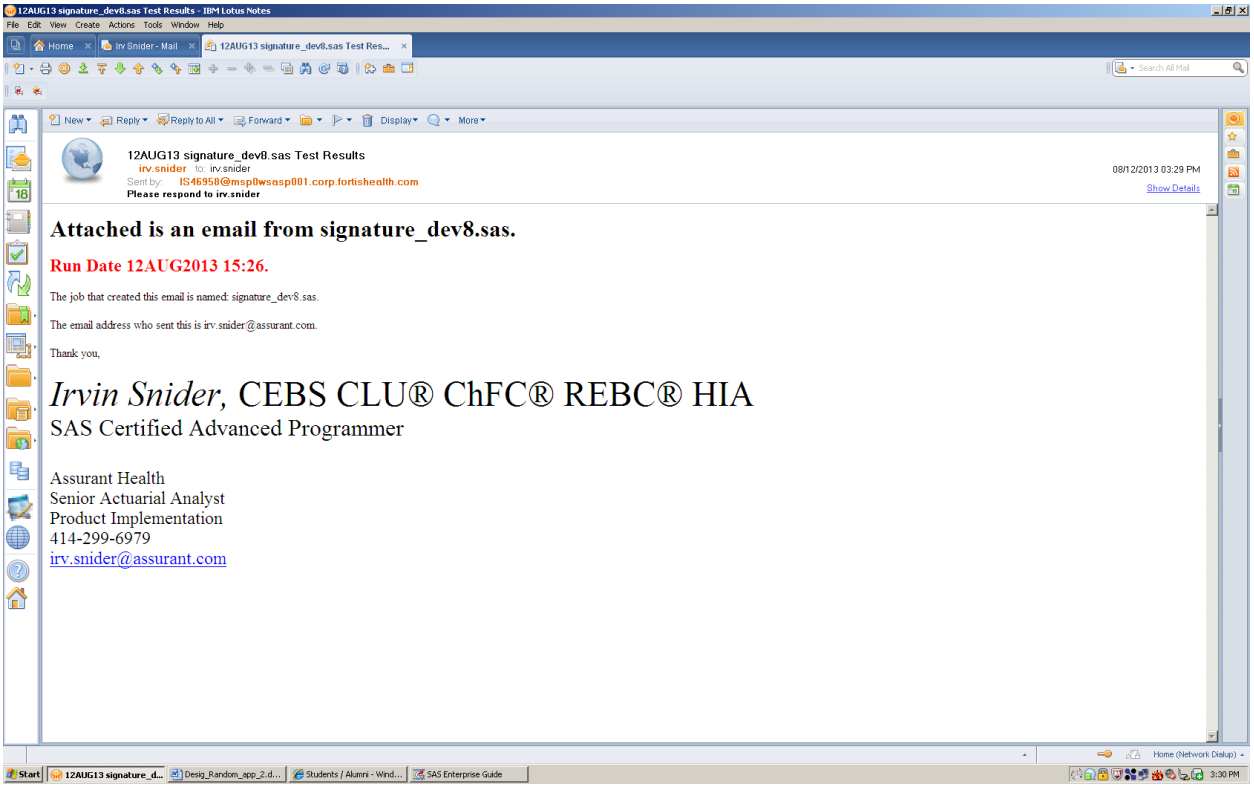
```
filename outbox email "&replyto";

data _null_;

        file outbox

       to=("&senditto")

        type='text/html'
        replyto=      ("&replyto")
        from=         ("&replyto")

        subject="&sysdate &_EGTASKLABEL Test Results"
        ;

        put '<html>';
        put '<head>';

        put "<h1>Attached is an email from &_EGTASKLABEL.. </h1>";
```

```
put '<font color= "red">';
put "<h2>Run Date &sysdate9..</h2>";
put '</font>';
put '<p></p>';

put "The job that created this email is named: &_EGTASKLABEL..";
put '<p></p>';

put "The email address who sent this is &senditto..";
put '<p></p>';

%M_sig_dist_list

put '<p></p>';
put '</head>';
put '</html>';
```

run;

THE EMAIL OUTPUT

Here is a screen print of the email.



MERCI BEAUCOUP

My assigned day to run The Daily Job is Friday. Emails from the Daily Job are sent out to dozens of employees in several departments. The random selection of my designations gives each of these employees something to look forward to each week. They anxiously await my emails to see which designations were selected. They are very grateful for this diversion, especially on a Friday.

I've heard that lotteries have sprung up around the company with people wagering on what the winning designations will be. However, this is merely a rumor and I have no solid proof of their existence although on one occasion, a total stranger (most likely an actuary) has approached me and thanked me for obtaining the FALU CEBS FLHC AIAA and ARP designations. This makes me feel good about myself. After all, it's all about ME ME ME ME ME.

VARIATION: SAMPLING WITH REPLACEMENT

It was suggested by Douglas Thompson Ph.D. that the designations be selected with replacement.

Instead of removing a designation from further selection once it had been selected, the chosen designation would be thrown back into the pool of designations to be potentially selected again. Each observation in the data set has an equal chance to be selected and can be selected over and over again. He thought that it would be amusing that potentially the same designations would be selected on a random basis.

This suggestion made me think of a character in the book Catch-22 named Major Major Major Major. The squadron commander of the base in Pianosa, was named Major Major Major by his father as a joke and was later made a Major by an IBM machine with a sense of humor similar to his father's.

If Major Major Major Major had 15 designations, what are the odds that the random selection with replacement routine would select four designations that are the exactly the same? That would be 1/15 to the fourth power or 1/50, 625. So while the odds are slight that he could send out emails as Major Major Major Major, REBC REBC REBC REBC or Major Major Major Major AIAA AIAA AIAA AIAA, there is the amusing chance that it could happen. Perhaps SAS has a sense of humor similar to an IBM machine (or similarly, Douglas Thompson Ph.D.).

```
proc surveyselect data=work.desigs
             method=urs
             n=5
             seed=0
             rep=1
             out=sample
             outhits
             noprint;
run;
```

PROC SURVEYSELECT is used here to produce the random sample. The method = urs (unrestricted random sampling) is used here to allow the replacement. N= is the number of observations to select. The sample is stored in the OUT= data set, SAMPLE.

The OUTHITS option includes an observation in the OUT= data set or each selected unit. By default, the OUT= will contain one observation for each unique selected unit and the NumberHits variable identifies the number of times each unit is selected.

Of course, one does not have to generate a random sample to accomplish this task. Simple hard coding would do the trick. But what fun is that?

HUNGADUNGER HUNGADUNGER HUNGADUNGER HUNGADUNGER AND McCORMICK

In an attempt to further amuse Douglas Thompson Ph.D., I include the following musing.

In the movie 'Animal Crackers,' Groucho dictates a letter to Zeppo saying. "Jamison, take a letter to my lawyer, the Honorable Charles H. Hungadunger, care of Hungadunger, Hungadunger, Hungadunger, Hungadunger and McCormack."

When 'Jamison' reads it back, he mentions only three 'Hungadungers,' prompting Grouch to tell him, "You've left out a Hungadunger. You've left out the most important one, too."

There must be a way to code SAS so that it would produce similar results with the designation string, i.e., HIA HIA HIA ChFC, but probably not anything close to Groucho's reply.

CONCLUSION

If you have made it this far, hopefully you have caught onto my attempt at humor. (Not meaning to brag but did I mention that I have 15 professional insurance designations?)

However this code might come in handy sometime, especially for the SAS novitiates. Being able to produce random numbers both with and without replacement, being able to employ CALL SYMPUT, create macro variables on the fly in a DATA step, and to employ DO loops all indicate that your programming skills are being developed.

REFERENCES

For further information on Major Major Major Major : http://en.wikipedia.org/wiki/Major_Major_Major_Major

For further information on Hungadunger, Hungadunger, Hungadunger, Hungadunger and McCormack: http://www.filmsite.org/anim3.html

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RECOMMENDED READING

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Hey! Look at that, I gained another designation!