Lab 4: SAS Macro and Report Examples

Sebastian Martinez

*exercise 1;

```
%MACRO sqr(a,b);
data sqr_table;
 do n = &a to &b;
  Sqr_n = n*n;
  output;
 end;
title "Table of Squared Values for Integers from 1 to 5";
proc print data=sqr_table noobs;
run;
%MEND sqr;

%sqr(10,15);
```

Table of Squared Values for Integers from 1 to 5

n	Sqr_n
10	100
11	121
12	144
13	169
14	196
15	225

Exercise 2

```
libname L "~/my_shared_file_links/u5338439/";
%MACRO twoprov(a,b);
title "Beneficiary Age and Risk by Provider Type";
```

```
proc tabulate data=L.cms_providers_la;
 where provider_type = &a or provider_type = &b;
 var beneficiary_average_age beneficiary_average_risk_score;
 class provider_type;
 table (beneficiary_average_age beneficiary_average_risk_score),
       provider_type='' * (n='N' mean='Mean' std='Standard Deviation') ;
run;
%MEND;

%twoprov("Anesthesiology", "Orthopedic Surgery");
```

Beneficiary Age and Risk by Provider Type

	Anesthesiology			Orthopedic Surgery		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Average Age of Beneficiaries	316	70.72	3.61	131	71.78	4.99
Average HCC Risk Score of Beneficiaries	316	2.22	0.81	131	1.44	0.46

Exercise 3

```
title "Beneficiary Age and Risk by Provider Type";
%MACRO exer3(numobs,varmeans);
ods rtf file = "~/my_files/data/sampleoutput1_&varmeans..rtf" style=journal;
title "Listing of &numobs Physicians";
proc print data=L.cms_providers_la (obs=&numobs);
 id npi;
 var nppes_provider_last_org_name nppes_provider_first_name;
run;

title "&varmeans by Provider Gender";
proc means data=L.cms_providers_la;
 class nppes_provider_gender;
 var &varmeans;
run;
ods rtf close;

%MEND exer3;
```

Exercise 4

```
%MACRO exer3(numobs,varmeans,name);
ods rtf file = "~/my_files/data/output_&name..rtf" style=journal;
```

```
title "Listing of &numobs Physicians";
proc print data=L.cms_providers_la (obs=&numobs);
 id npi;
 var nppes_provider_last_org_name nppes_provider_first_name;
run;

title "&name by Provider Gender";
proc means data=L.cms_providers_la;
 class nppes_provider_gender;
 var &varmeans;
run;
ods rtf close;

%MEND exer3;

%exer3(8,beneficiary_average_age,Beneficiary Mean Age);
```

Exercise 5

```
proc report data=L.cms_providers_la;
 column provider_type total_drug_unique_benes total_drug_submitted_chrg_amt;
 define provider_type/display group "Provider Type"; *without group its everything;
 define total_drug_unique_benes/analysis sum format=8.;
 define total_drug_submitted_chrg_amt/analysis sum format=dollar20.2;
run;
```

Exercise 6

```
proc report data=L.cms_providers_la;
 column provider_type npi total_drug_unique_benes total_drug_submitted_chrg_amt;
 define provider_type/display group "Provider Type";
 define npi/ display group "NPI";
 define total_drug_unique_benes/analysis sum format=8.;
 define total_drug_submitted_chrg_amt/analysis sum format=dollar20.2;
 break after provider_type /summarize ;
run;
```