```
%let path=/home/hzhan1210/census;
libname census "&path";

/*Select particular variables from data set*/
data census.psam_h17_subset1;
set census.psam_h17;
keep HINCP VALP;
label HINCP='household_income'
      VALP='property_value';
format HINCP Z9.
       VALP Z9.;
run;

/*PROC REG using VALP and HINCP*/
ods graphics;

proc reg data=census.psam_h17_subset1;
model VALP=HINCP;
title "Simple Regression with HINCP as Regressor";
run;
quit;

/*Select particular variables from data set*/
data census.psam_h17_subset1;
set census.psam_h17;
keep VALP MV ACR ACCESS;
label
      VALP ='Property Value'
      MV ='When moved into this house or apartment'
```

```
        ACR ='Lot size'
        ACCESS = 'Access to the Internet';
run;

/*Get the sample dataset of 300 obs*/
proc surveyselect data=census.psam_h17_subset1
method=srs n=301 out=census.glm;
run;

proc format;
value $acrfmt    "1"="less than one acre"
                                    "2"="less than ten acres"
                                    "3"="ten or more acres"
run;

proc format;
value $accessfmt
                                    "1"="Internet access with subscription"
                                    "2"="Internet access without subscription"
                                    "3"="No Internet access"
run;

proc format;
value $mvfmt "1"="12 months or less"
                                "2"="13~23 months"
                                "3"="2~4 years"
                                "4"="5~9 years"
        "5"="10~19 years"
                                "6"="20~29 years"
```

```
        "7"="30 years or more"
run;

/*PROC GLM using VALP as response and HFL as predictor variable*/
ods graphics;

proc glm data=census.glm plots=diagnostics;
class MV ACR ACCESS;
model VALP=MV ACR ACCESS;
means MV ACR ACCESS / hovtest=levene;
format MV $mvfmt. ACR $acrfmt. ACCESS $accessfmt.;
title "One-Way ANOVA with Moved, Lot size and Access to the Internet as Predictor";
run;
quit;

/*Select particular variables from data set*/
data census.psam_h17_subset1;
set census.psam_h17;
        if HINCP >=100000 then value = 1;
   else if HINCP <100000 then value = 0;
keep HINCP value MV ACR ACCESS;
label
        HINCP='household_income'
        value = 'HINCP(Household Income)>$100,000'
        MV ='When moved into this house or apartment'
        ACR ='Lot size'
        ACCESS = 'Access to the Internet';
run;
```

```
/*PROC LOGISTIC*/
ods graphics on;

proc logistic data=census.psam_h17_subset1 alpha=.05
        plots(only)=(effect oddsratio);
        class MV ACR ACCESS;
model value(event='1') = MV ACR ACCESS / clodds=pl;
format MV $mvfmt. ACR $acrfmt. ACCESS $accessfmt.;
title 'LOGISTIC MODEL (1):Value=ACR and ACCESS';
run;
```