options nofmterr;

libname DATASET 'C:\Users\LWANG18\Box\NHANES\_LU';

\*\*\*\*The price data prides the food price per 100 grams of a FoodCode \*\*\*\*;

**PROC** **IMPORT** OUT= WORK.Price1516

DATAFILE= "C:\Users\lwang18\Box\lasting\_aim\_3\data\in\Food p

rices\NHANES Foods National Average Prices\_InfoScan only.xlsx"

DBMS=EXCEL REPLACE;

RANGE="NHANES1516\_IRI2015\_2016\_retail$";

GETNAMES=YES;

MIXED=NO;

SCANTEXT=YES;

USEDATE=YES;

SCANTIME=YES;

**RUN**;

**data** price1516 ; set price1516; if FOODCode ne **.** ; **run**;

\*\*\*FPED prides the content of each food group(in servings, cups, or oz equi) per 100 grams of a FoodCode;

**data** FPED1516;

set DATASET.fped\_1516 ;

/\*rename variable to be consistent with previous analysis \*\*/

rename V\_DRKGR =veg\_dg ;

rename V\_REDOR\_TOTAL =veg\_ro ;

rename V\_LEGUMES =veg\_leg ;

rename V\_STARCHY\_TOTAL =veg\_sta ;

rename V\_OTHER =veg\_oth ;

rename F\_TOTAL =fruit ;

rename G\_WHOLE= gr\_whole ;

rename G\_REFINED= gr\_refined ;

rename D\_TOTAL= dairy ;

rename PF\_MEAT= pf\_redm ;

rename PF\_CUREDMEAT= pf\_pm ;

rename PF\_NUTSDS= pf\_ns ;

rename PF\_LEGUMES= pf\_leg ;

rename PF\_POULT= pf\_POULTRY ;

rename PF\_EGGS= pf\_EGG ;

pf\_seafood=sum(PF\_SEAFD\_HI, PF\_SEAFD\_LOW) ;

rename oils= oil;

**run** ;

\*combine FPED and Price data \*\*\*;

**proc** **sql** ; create table FPEDprice1516 as select

\* from price1516 as a left join FPED1516 as b on a.Foodcode=b.Foodcode ;

**quit** ;

\*Estimate intake for each Foodcode, as the weighting factor ;

**data** DR1iff\_i ;

set DATASET.DR1iff\_i ;

keep dr1iFDCD dr1igrms wtdrd1 ;

rename dr1igrms=dr12igrms ;

rename dr1iFDCD=FoodCode ;

rename wtdrd1=wtdrd ;

**run**;

**data** DR2iff\_i ;

set DATASET.DR2iff\_i ;

keep dr2iFDCD dr2igrms wtdr2d;

rename dr2igrms=dr12igrms ;

rename dr2iFDCD=FoodCode ;

rename wtdr2d=wtdrd ;

**run**;

**data** D12iff ;

set DR1iff\_i DR2iff\_i ;

gramwt=dr12igrms\*wtdrd ;

**run**;

**proc** **sql** ; create table FCintake as select Foodcode,

sum(gramwt ) as FCgrm from D12iff group by Foodcode ;

**quit** ;

\*\*\*Combine weighting factor with FPED-PRICE data ;

**proc** **sql** ; create table FPEDprice1516a as select

\* from FPEDprice1516 as a left join FCintake as b on a.Foodcode=b.Foodcode ;

**quit** ;

\*\*\*Using the cotent of FPED food group in 100 grams of each FoodCode to predict the price of 100 grams of a FoodCode.

The coeffecient will represent the unit price for each FPED food group \*\*\*;

ods output ParameterEstimates=Priceest ;

**proc** **reg** data=FPEDprice1516a ;

model price\_100gm=veg\_dg veg\_ro veg\_leg veg\_sta veg\_oth fruit gr\_whole gr\_refined dairy pf\_redm pf\_pm pf\_poultry

pf\_egg pf\_seafood pf\_ns pf\_soy oil add\_sugars solid\_fats/NOINT; /\*\*no interaction\*/

weight FCgrm;

**quit** ;

ods close ;

\*\*the dataset Priceest contains the unit price estimate for each FPED group ;

**data** Priceest ; set Priceest ;

rename estimate=unitprice ;

rename stderr=unitprice\_se ;

drop probt tvalue DF Model dependent; **run**;

**PROC** **EXPORT** DATA= WORK.PRICEEST

OUTFILE= "C:\Users\lwang18\Box\lasting\_aim\_3\data\in\Food pr

ices\Price\_FPEDgroup1516.xls"

DBMS=EXCEL REPLACE;

SHEET="aa";

**RUN**;