

APPENDIX TO IHIS DATA BRIEF NO. 2

SUPPLEMENTARY MATERIALS

Section 1. Variables Used to Define Age Group and Poverty Status and Generate Analysis Results

Table 1. Variables Used to Define Age Group and Poverty Status in the Data Brief

IHIS Name	Description	Codes
AGE	Age	0 to 85 (top coded)
POVIMP1	Ratio of imputed family income to poverty threshold	01 to 14
POVIMP2	Ratio of imputed family income to poverty threshold	01 to 14
POVIMP3	Ratio of imputed family income to poverty threshold	01 to 14
POVIMP4	Ratio of imputed family income to poverty threshold	01 to 14
POVIMP5	Ratio of imputed family income to poverty threshold	01 to 14

Table 2. Variables Used for the Analyses

IHIS Name	Description	Codes
YEAR	Survey year	2007 to 2014
STRATA	Stratum for variance estimation	
PSU	Primary sampling unit (PSU) for variance estimation	
SAMPWEIGHT	Sample Person Weight	
YBARCARE	Needed but couldn't afford medical care, past 12 months	1: No 2: Yes
YBARMEDS	Needed but couldn't afford prescription medicines, past 12 months	1: No 2: Yes
YBARMENTAL	Needed but couldn't afford mental health care, past 12 months	1: No 2: Yes
HINOTCOVE	Health Insurance coverage status	1: Not covered 2: Covered
HIPUBCOVE	Has any Medicaid/other public assistance/State sponsored plan or CHIP (recode)	1: No 2: Yes
HIPRIVATEE	Covered by private health insurance: Recode	1: No 2: Yes, information 3: Yes, but no information
HIMILITE	Covered by military health insurance: Recode	10: No 25: Yes, information 26: Yes, no information
HIMCAREE	Covered by Medicare: Recode	1: No 2: Yes, information 3: Yes, but no information
HIPWORKR	Has any private insurance obtained through employment	02: Yes
HIPBUYOWNR	Has any private insurance	2: Yes

	purchased directly	
<u>HIPEMPAYR</u>	Has any private insurance plan paid in part or full by employer	02: Yes
<u>HIPOUTR</u>	Has any private insurance plan paid for by someone outside the household	02: Yes
<u>HIP1WHO</u>	Plan 1: Plan in whose name	1: In own name 2: Someone else in family 3: Person not in household
<u>HIP2WHO</u>	Plan 2: Plan in whose name	1: In own name 2: Someone else in family 3: Person not in household

Section 2. SAS Code

```
/* DATA steps*/
```

```
/*Create age group variable for children (ages 0-18), young adults (ages 19-25), and adults (ages 26-64)*/
```

```
data ipums.acabrief;  
    set ipums.ihis_00035;  
    if age le 18 then agegrp = "Child";  
    else if 19 le age le 25 then agegrp = "Young";  
    else if 26 le age le 64 then agegrp = "Adult";  
    else agegrp = "Other";  
run;
```

```
/*Create new variable ybar for persons who experienced income barriers to medical care, prescription medicine, or mental health care.*/
```

```
data ipums.acabrief;  
    set ipums.acabrief;  
    if (ybarcare = 2 | ybarmeds = 2 | ybarmental = 2) then ybar = 1;  
    else if ybarcare = 1 & ybarmeds = 1 & ybarmental = 1 then ybar = 0;  
    else ybar = .;  
run;
```

```
/*Create poverty statuses (poor = 0%-99% FPL, near-poor = 100%-199% FPL, not-poor = 200%+ FPL) from imputed poverty files*/
```

```
data ipums.acabrief;  
    set ipums.acabrief;  
    IF povimp1 ge 01 & povimp1 le 03 THEN imppov1 = "poor";  
        ELSE IF povimp1 ge 04 & povimp1 le 07 THEN imppov1 = "near";  
        ELSE IF povimp1 ge 08 & povimp1 le 14 THEN imppov1 = "not";  
    RUN;
```

```
data ipums.acabrief;  
    set ipums.acabrief;  
    IF povimp2 ge 01 & povimp2 le 03 THEN imppov2 = "poor";  
        ELSE IF povimp2 ge 04 & povimp2 le 07 THEN imppov2 = "near";  
        ELSE IF povimp2 ge 08 & povimp2 le 14 THEN imppov2 = "not";  
    RUN;
```

```
data ipums.acabrief;  
    set ipums.acabrief;  
    IF povimp3 ge 01 & povimp3 le 03 THEN imppov3 = "poor";  
        ELSE IF povimp3 ge 04 & povimp3 le 07 THEN imppov3 = "near";  
        ELSE IF povimp3 ge 08 & povimp3 le 14 THEN imppov3 = "not";  
    RUN;
```

```

data ipums.acabrief;
  set ipums.acabrief;
  IF povimp4 ge 01 & povimp4 le 03 THEN imppov4 = "poor";
    ELSE IF povimp4 ge 04 & povimp4 le 07 THEN imppov4 = "near";
    ELSE IF povimp4 ge 08 & povimp4 le 14 THEN imppov4 = "not";
  RUN;

```

```

data ipums.acabrief;
  set ipums.acabrief;
  IF povimp5 ge 01 & povimp5 le 03 THEN imppov5 = "poor";
    ELSE IF povimp5 ge 04 & povimp5 le 07 THEN imppov5 = "near";
    ELSE IF povimp5 ge 08 & povimp5 le 14 THEN imppov5 = "not";
  RUN;

```

```

/*Group pre-reform years (2005-2009), reform implemenation year (2010), postreform years (2011-2013) and mandate
year (2014).*/

```

```

data ipums.acabrief;
  set ipums.acabrief;
  if year < 2010 then ya_prepost = 1;
  else if year = 2010 then ya_prepost = 2;
  else if year > 2010 & year < 2014 then ya_prepost = 3;
  else if year = 2014 then ya_prepost = 4;

```

```

/*Prioritize insurance responses*/

```

```

data ipums.acabrief;
set ipums.acabrief;
  if (hipubcove = 1 & hiprivatee = 1 & himilite = 10 & himcaree = 1) then instat = "Uninsured";
  else if age <= 18 & himcaree in (2,3) then instat = "Public";
  else if hiprivatee in (2,3) then instat = "Private";
  else if (hipubcove = 2 | himcaree in (2,3) | himilite in (20,21,22,23,24,25,26)) then instat = "Public";
  else if hinotcove = 1 then instat = "Uninsured";
  else instat = "Unknown";
run;

```

```

/*Create binary variable for each insurance type from instat*/

```

```

data ipums.acabrief;
  set ipums.acabrief;
  if instat = "Public" then public = 1;
  else public = 0;
  if instat = "Private" then private = 1;
  else private = 0;
  if instat = "Uninsured" then uninsured = 1;

```

```

else uninsured = 0;
if instat = "Unknown" then unknown = 1;
else unknown = 0;
run;

/*proc freq data = ipums.acabrief;
tables public private uninsured unknown;
run;*/

/*Determine primary source of coverage*/

data ipums.acabrief;
set ipums.acabrief;
if uninsured = 1 then primcov = "Uninsured";
else if public = 1 then primcov = "Public";
else if private = 1 & hipbuyownr = 2 then primcov = "Individual"; /*If primary source is private and has any plan
purchased directly, then primary coverage is individual market*/
else if private = 1 & hipoutr = 02 then primcov = "Dependent coverage ESI"; /*Else if NOT purchased directly on
individual market but is paid for by somebody outside the household, primcov is Dependent ESI*/
else if private = 1 & (hipempayr = 02 | hipworkr = 02) & hip1who = 1 then primcov = "Policy holder ESI"; /*Else if
work pays for all or part of the plan and the person's FIRST plan is in their name, primcov is Policyholder ESI*/
else if private = 1 & (hipempayr = 02 | hipworkr = 02) & hip1who in (2,3) then primcov = "Dependent coverage
ESI"; /*Else if work pays for all or part of the plan and the person's FIRST plan is in somebody else's name, primcov is
Dependent ESI*/
else if private = 1 & (hipempayr = 02 | hipworkr = 02) & hip2who = 1 then primcov = "Policy holder ESI"; /*Else if
work pays for all or part of the plan and the person's SECOND plan is in their name, primcov is Policyholder ESI*/
else if private = 1 & (hipempayr = 02 | hipworkr = 02) & hip2who in (2,3) then primcov = "Dependent coverage
ESI"; /*Else if work pays for all or part of the plan and the person's SECOND plan is in somebody else's name, primcov is
Dependent ESI*/
else if private = 1 & hip1who = 1 then primcov = "Policy holder ESI"; /*Else if the plan is private and the person's
FIRST plan is in their name, primcov is Policyholder ESI*/
else if private = 1 & hip1who in (2,3) then primcov = "Dependent coverage ESI"; /*Else if the plan is private and
the person's FIRST plan is in somebody else's name, primcov is Dependent ESI*/
else if private = 1 then primcov = "Private, unspecified"; /*Else there is insufficient information to classify a
private plan as individual/policyholder ESI/dependent ESI*/
else primcov = "Unknown"; /*Else there is insufficient information to identify the plan as public or private*/
run;

/*Create binary variables for primary coverage from primcov, not including the variables from instat*/
data ipums.acabrief;
set ipums.acabrief;
if primcov = "Individual" then individual = 1;
else individual = 0;
if primcov = "Dependent" then dependent = 1;
else dependent = 0;
if primcov = "Policy ho" then policyholder = 1;
else policyholder = 0;
if primcov = "Private," then othprivate = 1;

```

```

        else othprivate = 0;
run;

/*~~~~~*/

/* PROC steps*/

proc sort data = ipums.acabrief;
    by agegrp year;
run;

/*Table 1: Young adult uninsurance by FPL*/

/*Generate LS means for uninsurance rate by agegroup*imputed poverty for each year*/
proc surveyreg data = ipums.acabrief;
    strata strata;
    cluster psu;
    weight sampweight;
    class year imppov1 imppov2 imppov3 imppov4 imppov5;
    domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
    model uninsured = year;
    lsmeans year;
    ods output lsmeans = Fig1Means;
run;

/*Identify imputation numbers for output data set*/
data Fig1Means;
    set Fig1Means;
    _Imputation_ = .;
    IF _N_ > 8 & _N_ <= 104 THEN _Imputation_ = 1;
    ELSE IF _N_ > 104 & _N_ <= 200 THEN _Imputation_ = 2;
    ELSE IF _N_ > 200 & _N_ <= 296 THEN _Imputation_ = 3;
    ELSE IF _N_ > 296 & _N_ <= 392 THEN _Imputation_ = 4;
    ELSE IF _N_ > 392 & _N_ <= 488 THEN _Imputation_ = 5;
RUN;

/*Sort output data by agegrp and imputed poverty status*/
data Fig1Means;
    set Fig1Means;
    impsort = .;
    IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;

```

```

ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

```

```

proc sort data = Fig1Means;
    by impsort year;
run;

```

```

proc format cntlout = impsort_f;

```

```

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"
    12 = "Young, poor"
;

```

```

run;

```

```

data Fig1Means;
    set Fig1Means;
    format
        impsort impsort_f.
;
run;

```



```
/*Combine means and variance for relationship between insurance and imputed poverty status*/
```

```
proc mianalyze data=Fig1Means;  
    modeffects estimate;  
    by impsort year;  
    stderr stderr;  
    ods output varianceinfo=mi_var1 ParameterEstimates=mi_parm1;  
run;
```

```
/*Generate regression coefficients for model uninsured = year by age group and poverty level*/
```

```
proc sort data=fig1means;  
by _Imputation_ impsort;  
run;
```

```
proc reg data = fig1means outest = outreg covout noprint; /*Create output dataset with regression statistics*/
```

```
    model estimate = year;  
    by _Imputation_ impsort;  
run;
```

```
proc sort data=outreg;
```

```
by impsort _Imputation_ ; /*Sort output dataset by agegroup/poverty level and imputation number*/  
run;
```

```
proc mianalyze data=outreg;
```

```
    modeffects year; /*Combine coefficient estimates for each year*/  
    by impsort;  
run;
```

```
/*Generate between-year differences in uninsured rate by poverty status*/
```

```
proc surveyreg data = ipums.acabrief;
```

```
    strata strata;  
    cluster psu;  
    class year agegrp imppov1;  
    domain agegrp;  
    model uninsured = year*imppov1;  
    lsmeans year*imppov1 / diff;  
    ods output diffs = Fig1Diffs1;  
    weight sampweight;  
run;
```

```
proc surveyreg data = ipums.acabrief;
```

```
    strata strata;  
    cluster psu;  
    class year agegrp imppov2;  
    domain agegrp;  
    model uninsured = year*imppov2;  
    lsmeans year*imppov2 / diff;  
    ods output diffs = Fig1Diffs2;  
    weight sampweight;
```

```

run;
proc surveyreg data = ipums.acabrief;
  strata strata;
  cluster psu;
  class year agegrp imppov3;
  domain agegrp;
  model uninsured = year*imppov3;
  lsmeans year*imppov3 / diff;
  ods output diffs = Fig1Diffs3;
  weight sampweight;
run;
proc surveyreg data = ipums.acabrief;
  strata strata;
  cluster psu;
  class year agegrp imppov4;
  domain agegrp;
  model uninsured = year*imppov4;
  lsmeans year*imppov4 / diff;
  ods output diffs = Fig1Diffs4;
  weight sampweight;
run;
proc surveyreg data = ipums.acabrief;
  strata strata;
  cluster psu;
  class year agegrp imppov5;
  domain agegrp;
  model uninsured = year*imppov5;
  lsmeans year*imppov5 / diff;
  ods output diffs = Fig1Diffs5;
  weight sampweight;
run;

data Fig1Diffs1;
  set Fig1Diffs1;
  if domain ne "agegrp=Young" then delete;
  _Imputation_ = 1;
run;

Data Fig1Diffs2;
  set Fig1Diffs2;
  if domain ne "agegrp=Young" then delete;
  _Imputation_ = 2;
run;

data Fig1Diffs3;
  set Fig1Diffs3;
  if domain ne "agegrp=Young" then delete;
  _Imputation_ = 3;
run;

```

```
data Fig1Diffs4;
  set Fig1Diffs4;
  if domain ne "agegrp=Young" then delete;
  _Imputation_ = 4;
run;
```

```
data Fig1Diffs5;
  set Fig1Diffs5;
  if domain ne "agegrp=Young" then delete;
  _Imputation_ = 5;
run;
```

```
data Fig1Diffs1_5;
  set Fig1Diffs1 Fig1Diffs2 Fig1Diffs3 Fig1Diffs4 Fig1Diffs5;
  if imppov1 = "poor" | imppov2 = "poor" | imppov3 = "poor" | imppov4 = "poor" | imppov5 = "poor" then
imppov = "poor";
  else if imppov1 = "near" | imppov2 = "near" | imppov3 = "near" | imppov4 = "near" | imppov5 = "near" then
imppov = "near";
  else if imppov1 = "not" | imppov2 = "not" | imppov3 = "not" | imppov4 = "not" | imppov5 = "not" then imppov
= "not";
run;
```

```
data Fig1Diffs1_5;
  set Fig1Diffs1_5;
  if _imppov1 = "poor" | _imppov2 = "poor" | _imppov3 = "poor" | _imppov4 = "poor" | _imppov5 = "poor" then
_imppov = "poor";
  else if _imppov1 = "near" | _imppov2 = "near" | _imppov3 = "near" | _imppov4 = "near" | _imppov5 = "near"
then _imppov = "near";
  else if _imppov1 = "not" | _imppov2 = "not" | _imppov3 = "not" | _imppov4 = "not" | _imppov5 = "not" then
_imppov = "not";
run;
```

```
Proc sort data = fig1diffs1_5;
  by year _year imppov _imppov _Imputation_;
run;
```

```
proc mianalyze data=Fig1Diffs1_5;
  by year _year imppov _imppov;
  modeleffects estimate;
  stderr stderr;
  ods output varianceinfo=mi_var1_5 ParameterEstimates=mi_parm1_5;
run;
```

```
proc sort data=mi_parm1_5;
  by year _year imppov _imppov;
run;
```

```
proc glm data = mi_parm1_5;
  class year imppov;
  model estimate = year / solution;
  by imppov;
run;
```

```
proc glm data = mi_parm1_5;
  class year imppov;
  model estimate = imppov / solution;
  by year;
run;
```

/*Table 2: Difference in uninsurance, poor vs. not poor, for all age groups*/

/*Generate differences in LS means for agegroup*imputed poverty for each year*/

```
proc surveyreg data = ipums.acabrief;
  strata strata;
  cluster psu;
  class agegrp imppov1;
  domain year;
  model uninsured = agegrp*imppov1;
  lsmeans agegrp*imppov1 / diff;
  ods output diffs = Fig2Diffs1;
  weight sampweight;
run;
```

```
proc surveyreg data = ipums.acabrief;
  strata strata;
  cluster psu;
  class agegrp imppov2;
  domain year;
  model uninsured = agegrp*imppov2;
  lsmeans agegrp*imppov2 / diff;
  ods output diffs = Fig2Diffs2;
  weight sampweight;
run;
```

```
proc surveyreg data = ipums.acabrief;
  strata strata;
  cluster psu;
  class agegrp imppov3;
  domain year;
  model uninsured = agegrp*imppov3;
  lsmeans agegrp*imppov3 / diff;
  ods output diffs = Fig2Diffs3;
  weight sampweight;
run;
```

```

proc surveyreg data = ipums.acabrief;
    strata strata;
    cluster psu;
    class agegrp imppov4;
    domain year;
    model uninsured = agegrp*imppov4;
    lsmeans agegrp*imppov4 / diff;
    ods output diffs = Fig2Diffs4;
    weight sampweight;
run;

```

```

proc surveyreg data = ipums.acabrief;
    strata strata;
    cluster psu;
    class agegrp imppov5;
    domain year;
    model uninsured = agegrp*imppov5;
    lsmeans agegrp*imppov5 / diff;
    ods output diffs = Fig2Diffs5;
    weight sampweight;
run;

```

```

/*Append output data sets from surveyreg*/
data fig2diffs1_5;
    set fig2diffs1 fig2diffs2 fig2diffs3 fig2diffs4 fig2diffs5;
run;

```

```

/*Label final output data set by imputation*/
data Fig2Diffs1_5;
    set Fig2Diffs1_5;
    _Imputation_ = .;
    IF effect = "agegrp*imppov1" THEN _Imputation_ = 1;
    ELSE IF effect = "agegrp*imppov2" THEN _Imputation_ = 2;
    ELSE IF effect = "agegrp*imppov3" THEN _Imputation_ = 3;
    ELSE IF effect = "agegrp*imppov4" THEN _Imputation_ = 4;
    ELSE IF effect = "agegrp*imppov5" THEN _Imputation_ = 5;
RUN;

```

```

/*Create sorting variables KEEP and MATCH for differences between not-poor and poor of same agegrp*/
data Fig2Diffs1_5;
    set Fig2Diffs1_5;
    keep = (imppov1 = "not" & _imppov1 = "poor") | (imppov2 = "not" & _imppov2 = "poor") | (imppov3 = "not" &
_imppov3 = "poor") | (imppov4 = "not" & _imppov4 = "poor") | (imppov5 = "not" & _imppov5 = "poor");
run;

```

```

data Fig2Diffs1_5;
    set Fig2Diffs1_5;
    if agegrp = _agegrp then match = 1;
    else match = 0;

```

```

run;

proc sort data = Fig2Diffs1_5;
    by match keep domain agegrp _Imputation_;
run;

/*Combine means and variance for difference of insurance status by imputed poverty level*/
proc mianalyze data=Fig2Diffs1_5;
    where keep = 1 & match = 1;
    by domain agegrp;
    modeleffects estimate;
    stderr stderr;
    ods output varianceinfo=mi_var2 ParameterEstimates=mi_parm2;
run;

/*Generate regression coefficients for model difference = year by age group and poverty level*/
data fig2diffs1_5;
    set fig2diffs1_5;
    if domain = "Survey year=2007" then year = 2007;
    else if domain = "Survey year=2008" then year = 2008;
    else if domain = "Survey year=2009" then year = 2009;
    else if domain = "Survey year=2010" then year = 2010;
    else if domain = "Survey year=2011" then year = 2011;
    else if domain = "Survey year=2012" then year = 2012;
    else if domain = "Survey year=2013" then year = 2013;
    else if domain = "Survey year=2014" then year = 2014;
run;

proc sort data = Fig2Diffs1_5;
    by match keep _Imputation_ agegrp year;
run;

proc reg data = fig2diffs1_5 outest = outreg2 covout noprint;
    where keep = 1 & match = 1;
    model estimate = year; /*Regress insurance rate difference on year*/
    by _Imputation_ agegrp;
run;

proc sort data=outreg2;
by agegrp _Imputation_;
run;

proc mianalyze data=outreg2;
    modeleffects year; /*Combine MI estimates of insurance rate gap by age group*/
    by agegrp;
run;

/*Table 3: Insurance composition (private, public, uninsured) by percentage point difference from prereform*/

```

```
/*Generate frequencies of insurance type by agegroup across prereform, implementation, postreform, and mandate periods*/
```

```
proc surveyreg data = ipums.acabrief;  
    strata strata;  
    cluster psu;  
    class agegrp ya_prepost;  
    domain agegrp;  
    model private = ya_prepost;  
    lsmeans ya_prepost / diff;  
    weight sampweight;  
run;
```

```
proc surveyreg data = ipums.acabrief;  
    strata strata;  
    cluster psu;  
    class agegrp ya_prepost;  
    domain agegrp;  
    model public = ya_prepost;  
    lsmeans ya_prepost / diff;  
    weight sampweight;  
run;
```

```
proc surveyreg data = ipums.acabrief;  
    strata strata;  
    cluster psu;  
    class agegrp ya_prepost;  
    domain agegrp;  
    model uninsured = ya_prepost;  
    lsmeans ya_prepost / diff;  
    weight sampweight;  
run;
```

```
proc surveyreg data = ipums.acabrief;  
    strata strata;  
    cluster psu;  
    class agegrp ya_prepost;  
    domain agegrp;  
    model unknown = ya_prepost;  
    lsmeans ya_prepost / diff;  
    weight sampweight;  
run;
```

```
/*Table 4: Insurance composition (private, public, uninsured) changes for young adults by FPL*/
```

```
/*Generate differences in LS means for ya_prepost for each insurance type by imputed poverty level*/  
proc surveyreg data = ipums.acabrief;
```

```

strata strata;
cluster psu;
class agegrp ya_prepost;
domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
model private = ya_prepost;
lsmeans ya_prepost / diff;
ods output diffs = Fig4DiffsPrivate;
weight sampweight;
run;

```

```

proc surveyreg data = ipums.acabrief;
strata strata;
cluster psu;
class agegrp ya_prepost;
domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
model public = ya_prepost;
lsmeans ya_prepost / diff;
ods output diffs = Fig4DiffsPublic;
weight sampweight;
run;

```

```

proc surveyreg data = ipums.acabrief;
strata strata;
class agegrp ya_prepost;
domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
model uninsured = ya_prepost;
lsmeans ya_prepost / diff;
ods output diffs = Fig4DiffsUninsured;
weight sampweight;
run;

```

```

proc surveyreg data = ipums.acabrief;
strata strata;
class agegrp ya_prepost;
domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
model unknown = ya_prepost;
lsmeans ya_prepost / diff;
ods output diffs = Fig4DiffsUnknown;
weight sampweight;
run;

```

```

/*Label differences by agegrp and imputed poverty status for PRIVATE insurance*/
data Fig4DiffsPrivate;
set Fig4DiffsPrivate;
impsort = .;
IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impso
rt = 1;
ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impso
rt = 2;

```



```

ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

```

```

proc sort data = Fig4DiffsPrivate;
    by impsort ya_prepost;
run;

```

```

proc format cntlout = impsort_f;

```

```

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"
    12 = "Young, poor"
;

```

```

run;

```

```

data Fig4DiffsPrivate;
    set Fig4DiffsPrivate;
    format
        impsort impsort_f.
;

```

```

run;

/*Create sorting variable KEEP for difference in private insurance between pre-reform and post-reform*/
data Fig4DiffsPrivate;
    set Fig4DiffsPrivate;
    keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

proc sort data = Fig4DiffsPrivate;
    by keep impsort;
run;

/*Combine means and variance for change in private insurance by imputed poverty*/
proc mianalyze data=Fig4DiffsPrivate;
    where keep = 1;
    by impsort;
    modeleffects estimate;
    stderr stderr;
    ods output varianceinfo=mi_var4private ParameterEstimates=mi_parm4private;
run;

/*Perform same steps for PUBLIC*/
data Fig4DiffsPublic;
    set Fig4DiffsPublic;
    impsort = .;
    IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;

```

```

ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

proc sort data = Fig4DiffsPublic;
    by impsort ya_prepost;
run;

proc format cntlout = impsort_f;

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"
    12 = "Young, poor"
;
run;

data Fig4DiffsPublic;
    set Fig4DiffsPublic;
    format
        impsort impsort_f.
;
run;

data Fig4DiffsPublic;
    set Fig4DiffsPublic;
    keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

proc sort data = Fig4DiffsPublic;
    by keep impsort;
run;

proc mianalyze data=Fig4DiffsPublic;
    where keep = 1;
    by impsort;
    modeleffects estimate;
    stderr stderr;
    ods output varianceinfo=mi_var4Public ParameterEstimates=mi_parm4Public;
run;

```

```

/*Perform same steps for UNINSURED*/
data Fig4DiffsUninsured;
    set Fig4DiffsUninsured;
    impsort = .;
    IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

proc sort data = Fig4DiffsUninsured;
    by impsort ya_prepost;
run;

proc format cntlout = impsort_f;

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"

```

```

        12 = "Young, poor"
    ;
run;

data Fig4DiffsUninsured;
    set Fig4DiffsUninsured;
    format
        impsort impsort_f.
    ;
run;

data Fig4DiffsUninsured;
    set Fig4DiffsUninsured;
    keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

proc sort data = Fig4DiffsUninsured;
    by keep impsort;
run;

proc mianalyze data=Fig4DiffsUninsured;
    where keep = 1;
    by impsort;
    modeleffects estimate;
    stderr stderr;
    ods output varianceinfo=mi_var4Uninsured ParameterEstimates=mi_parm4Uninsured;
run;

/*Perform same steps for UNKNOWN*/
data Fig4DiffsUnknown;
    set Fig4DiffsUnknown;
    impsort = .;
    IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;

```

```

ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

```

```

proc sort data = Fig4DiffsUnknown;
    by impsort ya_prepost;
run;

```

```

proc format cntlout = impsort_f;

```

```

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"
    12 = "Young, poor"
;

```

```

run;

```

```

data Fig4DiffsUnknown;
    set Fig4DiffsUnknown;
    format
        impsort impsort_f.
;

```

```

run;

```

```

data Fig4DiffsUnknown;
    set Fig4DiffsUnknown;
    keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

```

```

proc sort data = Fig4DiffsUnknown;
    by keep impsort;
run;

```

```

proc mianalyze data=Fig4DiffsUnknown;

```

```

where keep = 1;
by impsort;
modeleffects estimate;
stderr stderr;
ods output varianceinfo=mi_var4Unknown ParameterEstimates=mi_parm4Unknown;
run;

```

```

/*Table 5: Changes in ownership of private insurance policies for young adults*/

```

```

/*Generate differences in LS means for ya_prepost for each PRIVATE INSURANCE SOURCE by imputed poverty level*/

```

```

proc surveyreg data = ipums.acabrief;
    strata strata;
    cluster psu;
    class agegrp ya_prepost;
    domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
    model individual = ya_prepost;
    lsmeans ya_prepost / diff;
    ods output diffs = Fig5DiffsIndividual;
    weight sampweight;
run;

```

```

proc surveyreg data = ipums.acabrief;
    strata strata;
    cluster psu;
    class agegrp ya_prepost;
    domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
    model dependent = ya_prepost;
    lsmeans ya_prepost / diff;
    ods output diffs = Fig5DiffsDependent;
    weight sampweight;
run;

```

```

proc surveyreg data = ipums.acabrief;
    strata strata;
    class agegrp ya_prepost;
    domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
    model policyholder = ya_prepost;
    lsmeans ya_prepost / diff;
    ods output diffs = Fig5DiffsPolicyholder;
    weight sampweight;
run;

```

```

proc surveyreg data = ipums.acabrief;
    strata strata;
    class agegrp ya_prepost;
    domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
    model othprivate = ya_prepost;

```

```

lsmeans ya_prepost / diff;
ods output diffs = Fig5DiffsOthprivate;
weight sampweight;
run;

/*Label differences by agegrp and imputed poverty status for INDIVIDUAL MARKET coverage*/
data Fig5DiffsIndividual;
  set Fig5DiffsIndividual;
  impsort = .;
  IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
  ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
  ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
  ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
  ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
  ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
  ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
  ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
  ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
  ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
  ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
  ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

proc sort data = Fig5DiffsIndividual;
  by impsort ya_prepost;
run;

proc format cntlout = impsort_f;

value impsort_f
  1 = "Adult, near"
  2 = "Adult, not"
  3 = "Adult, poor"
  4 = "Child, near"
  5 = "Child, not"
  6 = "Child, poor"
  7 = "Other, near"

```



```

8 = "Other, not"
9 = "Other, poor"
10 = "Young, near"
11 = "Young, not"
12 = "Young, poor"
;
run;

data Fig5DiffsIndividual;
  set Fig5DiffsIndividual;
  format
      impsort impsort_f.
;
run;

/*Create sorting variable KEEP for difference in individual market coverage between pre-reform and post-reform*/
data Fig5DiffsIndividual;
  set Fig5DiffsIndividual;
  keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

proc sort data = Fig5DiffsIndividual;
  by keep impsort;
run;

/*Combine means and variance for change in individual market coverage by imputed poverty*/
proc mianalyze data=Fig5DiffsIndividual;
  where keep = 1;
  by impsort;
  modeleffects estimate;
  stderr stderr;
  ods output varianceinfo=mi_var5Individual ParameterEstimates=mi_parm5Individual;
run;

/*Perform same steps for DEPENDENT ESI COVERAGE*/
data Fig5DiffsDependent;
  set Fig5DiffsDependent;
  impsort = .;
  IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
  ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
  ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
  ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
  ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;

```

```

ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

```

```

proc sort data = Fig5DiffsDependent;
    by impsort ya_prepost;
run;

```

```

proc format cntlout = impsort_f;

```

```

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"
    12 = "Young, poor"
;

```

```

run;

```

```

data Fig5DiffsDependent;
    set Fig5DiffsDependent;
    format
        impsort impsort_f.
;

```

```

run;

```

```

data Fig5DiffsDependent;
    set Fig5DiffsDependent;
    keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

```

```
proc sort data = Fig5DiffsDependent;
    by keep impsort;
run;
```

```
proc mianalyze data=Fig5DiffsDependent;
    where keep = 1;
    by impsort;
    modeleffects estimate;
    stderr stderr;
    ods output varianceinfo=mi_var5Dependent ParameterEstimates=mi_parm5Dependent;
run;
```

```
/*Perform same steps for POLICYHOLDER ESI COVERAGE*/
```

```
data Fig5DiffsPolicyholder;
    set Fig5DiffsPolicyholder;
    impsort = .;
    IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
    ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
    ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;
```

```
proc sort data = Fig5DiffsPolicyholder;
    by impsort ya_prepost;
run;
```

```
proc format cntlout = impsort_f;
```

```

value impsort_f
  1 = "Adult, near"
  2 = "Adult, not"
  3 = "Adult, poor"
  4 = "Child, near"
  5 = "Child, not"
  6 = "Child, poor"
  7 = "Other, near"
  8 = "Other, not"
  9 = "Other, poor"
  10 = "Young, near"
  11 = "Young, not"
  12 = "Young, poor"
;
run;

data Fig5DiffsPolicyholder;
  set Fig5DiffsPolicyholder;
  format
    impsort impsort_f.
;
run;

data Fig5DiffsPolicyholder;
  set Fig5DiffsPolicyholder;
  keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

proc sort data = Fig5DiffsPolicyholder;
  by keep impsort;
run;

proc mianalyze data=Fig5DiffsPolicyholder;
  where keep = 1;
  by impsort;
  modeleffects estimate;
  stderr stderr;
  ods output varianceinfo=mi_var5Policyholder ParameterEstimates=mi_parm5Policyholder;
run;

/*Perform same steps for PRIVATE COVERAGE, SOURCE UNSPECIFIED*/
data Fig5DiffsOthprivate;
  set Fig5DiffsOthprivate;
  impsort = .;
  IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
  ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;

```

```

ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;
ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

```

```

proc sort data = Fig5DiffsOthprivate;
    by impsort ya_prepost;
run;

```

```

proc format cntlout = impsort_f;

```

```

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"
    12 = "Young, poor"
;
run;

```

```

data Fig5DiffsOthprivate;
    set Fig5DiffsOthprivate;
    format
        impsort impsort_f.
;

```

```

run;

data Fig5DiffsOthprivate;
    set Fig5DiffsOthprivate;
    keep = (ya_prepost = 1 & _ya_prepost = 3);
run;

proc sort data = Fig5DiffsOthprivate;
    by keep impsort;
run;

proc mianalyze data=Fig5DiffsOthprivate;
    where keep = 1;
    by impsort;
    modeleffects estimate;
    stderr stderr;
    ods output varianceinfo=mi_var5Othprivate ParameterEstimates=mi_parm5Othprivate;
run;

/*Table 6: Percentage point change in young adults with income barriers to care by FPL*/

/*Generate differences in LS means for ya_prepost by imputed poverty level*/
proc surveyreg data = ipums.acabrief;
    strata strata;
    cluster psu;
    class agegrp ya_prepost;
    domain agegrp*imppov1 agegrp*imppov2 agegrp*imppov3 agegrp*imppov4 agegrp*imppov5;
    model ybar = ya_prepost;
    lsmeans ya_prepost / diff;
    ods output diffs = Fig6Diffs;
    weight sampweight;
run;

/*Label differences by agegrp and imputed poverty status for INCOME BARRIERS TO CARE*/
data Fig6Diffs;
    set Fig6Diffs;
    impsort = .;
    IF DOMAIN in ("agegrp=Adult imppov1=near","agegrp=Adult imppov2=near","agegrp=Adult
imppov3=near","agegrp=Adult imppov4=near","agegrp=Adult imppov5=near") THEN impsort = 1;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=not","agegrp=Adult imppov2=not","agegrp=Adult
imppov3=not","agegrp=Adult imppov4=not","agegrp=Adult imppov5=not") THEN impsort = 2;
    ELSE IF DOMAIN in ("agegrp=Adult imppov1=poor","agegrp=Adult imppov2=poor","agegrp=Adult
imppov3=poor","agegrp=Adult imppov4=poor","agegrp=Adult imppov5=poor") THEN impsort = 3;
    ELSE IF DOMAIN in ("agegrp=Child imppov1=near","agegrp=Child imppov2=near","agegrp=Child
imppov3=near","agegrp=Child imppov4=near","agegrp=Child imppov5=near") THEN impsort = 4;

```

```

ELSE IF DOMAIN in ("agegrp=Child imppov1=not","agegrp=Child imppov2=not","agegrp=Child
imppov3=not","agegrp=Child imppov4=not","agegrp=Child imppov5=not") THEN impsort = 5;
ELSE IF DOMAIN in ("agegrp=Child imppov1=poor","agegrp=Child imppov2=poor","agegrp=Child
imppov3=poor","agegrp=Child imppov4=poor","agegrp=Child imppov5=poor") THEN impsort = 6;
ELSE IF DOMAIN in ("agegrp=Other imppov1=near","agegrp=Other imppov2=near","agegrp=Other
imppov3=near","agegrp=Other imppov4=near","agegrp=Other imppov5=near") THEN impsort = 7;
ELSE IF DOMAIN in ("agegrp=Other imppov1=not","agegrp=Other imppov2=not","agegrp=Other
imppov3=not","agegrp=Other imppov4=not","agegrp=Other imppov5=not") THEN impsort = 8;
ELSE IF DOMAIN in ("agegrp=Other imppov1=poor","agegrp=Other imppov2=poor","agegrp=Other
imppov3=poor","agegrp=Other imppov4=poor","agegrp=Other imppov5=poor") THEN impsort = 9;
ELSE IF DOMAIN in ("agegrp=Young imppov1=near","agegrp=Young imppov2=near","agegrp=Young
imppov3=near","agegrp=Young imppov4=near","agegrp=Young imppov5=near") THEN impsort = 10;
ELSE IF DOMAIN in ("agegrp=Young imppov1=not","agegrp=Young imppov2=not","agegrp=Young
imppov3=not","agegrp=Young imppov4=not","agegrp=Young imppov5=not") THEN impsort = 11;
ELSE IF DOMAIN in ("agegrp=Young imppov1=poor","agegrp=Young imppov2=poor","agegrp=Young
imppov3=poor","agegrp=Young imppov4=poor","agegrp=Young imppov5=poor") THEN impsort = 12;
run;

```

```

proc sort data = Fig6Diffs;
    by impsort ya_prepost;
run;

```

```

proc format cntlout = impsort_f;

```

```

value impsort_f
    1 = "Adult, near"
    2 = "Adult, not"
    3 = "Adult, poor"
    4 = "Child, near"
    5 = "Child, not"
    6 = "Child, poor"
    7 = "Other, near"
    8 = "Other, not"
    9 = "Other, poor"
    10 = "Young, near"
    11 = "Young, not"
    12 = "Young, poor"
;

```

```
run;
```

```

data Fig6Diffs;
    set Fig6Diffs;
    format
        impsort impsort_f.
;

```

```
run;
```

```

/*Create sorting variable KEEP for difference in private insurance between pre-reform and implementation period, post-
reform, and mandate periods*/

```

```
data Fig6Diffs;
  set Fig6Diffs;
  keep = .;
  if (ya_prepost = 1 & _ya_prepost = 2) then keep = 2;
  else if (ya_prepost = 1 & _ya_prepost = 3) then keep = 3;
  else if (ya_prepost = 1 & _ya_prepost = 4) then keep = 4;
run;

proc sort data = Fig6Diffs;
  by keep impsort;
run;

/*Combine means and variance for change in YBAR by imputed poverty*/
proc mianalyze data=Fig6Diffs;
  where keep >= 2;
  by keep impsort;
  modeleffects estimate;
  stderr stderr;
  ods output varianceinfo=mi_var6 ParameterEstimates=mi_parm6;
run;
```